April 21 2021 Regular Meeting

April 21 2021 Regular Meeting - April 21 2021 Regular Meeting

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Bronco Clinic Update (1 of 3)
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Vendor Credentialing Policy and Procedure approval
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Financial and Statistical reports as of February 2021

AGENDA NORTHERN INYO HEALTHCARE DISTRICT BOARD OF DIRECTORS REGULAR MEETING April 21, 2021 at 5:30 p.m.

Northern Inyo Healthcare District invites you to attend this Zoom meeting:

<u>TO CONNECT VIA **ZOOM**</u>: (A link is also available on the NIHD Website) https://zoom.us/j/213497015?pwd=TDIIWXRuWjE4T1Y2YVFWbnF2aGk5UT09 Meeting ID: 213 497 015 Password: 608092

PHONE CONNECTION:

888 475 4499 US Toll-free 877 853 5257 US Toll-free Meeting ID: 213 497 015

- 1. Call to Order (at 5:30 pm).
- 2. Public Comment: The purpose of public comment is to allow members of the public to address the Board of Directors. Public comments shall be received at the beginning of the meeting and are limited to three (3) minutes per speaker, with a total time limit of thirty (30) minutes for all public comment unless otherwise modified by the Chair. Speaking time may not be granted and/or loaned to another individual for purposes of extending available speaking time unless arrangements have been made in advance for a large group of speakers to have a spokesperson speak on their behalf. Comments must be kept brief and non-repetitive. The general Public Comment portion of the meeting allows the public to address any item within the jurisdiction of the Board of Directors on matters not appearing on the agenda. Public comments on agenda items should be made at the time each item is considered.
- 3. New Business:
 - A. NIHD and Inyo County Covid-19 update (information item).
 - B. Moment of appreciation by Board members for District employees and providers (*information item*).
 - C. Bronco Clinic Update (information item).
 - D. Policy and Procedure approval, Vendor Credentialing (action item).
 - E. Review of NIHD Board of Directors Ad Hoc Committee memberships (*discussion and possible action item*).

- 4. Chief of Staff Report, Sierra Bourne MD:
 - A. Policy and Procedure Approvals (action items):
 - 1. Echocardiogram Performance Protocol
 - 2. Medical Staff Department Policy Hospital Medicine
 - 3. Stabilization and Resuscitation of the Newborn
 - 4. Standardized Procedure for the Admission of the Well Newborn
 - 5. Standardized Procedure for COVID-19 Test Results
 - B. Medical Staff and APP Staff Appointments (action items):
 - 1. Cheryl Olson, MD (general surgery) Courtesy Staff
 - C. Requests for Additional Privileges (action items):
 - Stefan Schunk, MD (*internal medicine*) request for outpatient core privileges and trigger point injection privileges
 - 2. Monika Mehrens, DO (family medicine) request for outpatient core privileges
 - D. Medical Staff Resignations (action items):
 - 1. Rainier Manzanilla, MD (cardiology) effective 3/1/2021
 - 2. Diana Havill, MD (psychiatry, Adventist Health) effective 4/30/2021
 - E. New Medical Staff Leadership Org Chart (information item).
 - F. Medical Executive Committee Meeting Report (information item).

Consent Agenda (action items)

- 5. Approval of minutes of the March 10 2021 special meeting
- 6. Approval of minutes of the March 14 2021 special meeting
- 7. Approval of minutes of the March 17 2021 regular meeting
- 8. Financial and Statistical reports as of February 28 2021
- 9. Policy and Procedure annual approvals
- 10. Cerner Implementation update
- 11. NIHD Committee updates from Board members (information items).
- 12. Reports from Board members (information items).
- 13. Adjournment to Closed Session to/for:
 - A. Conference with Legal Counsel, existing litigation (*pursuant to Paragraph (1) of subdivision* (*d) of Government Code Section 54956.9*). Name of case: Inyo County LAFCO and NIHD v.

4/13/2021, 12:18 PM

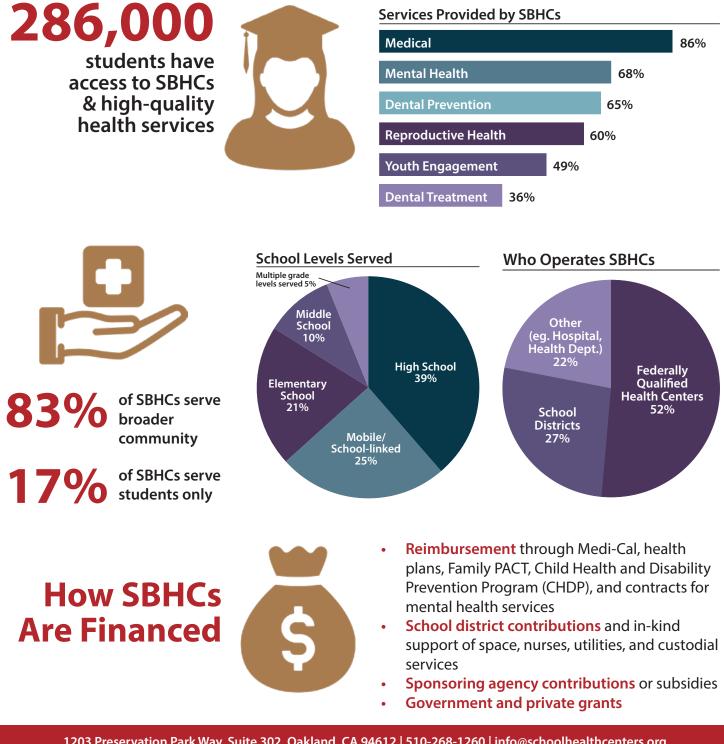
SMHD, Case No. 3-2015-8002247-CY-WM-GDS-Sacramento County.

- B. Conference with Labor Negotiators, Agency Designated Representative: Irma Moisa;
 Employee Organization: AFSCME Council 57 (*pursuant to Government Code Section* 54957.6).
- C. Significant exposure to litigation (pursuant to Government Code Section 54956.9), 3 cases.
- D. Conference with legal counsel, existing litigation (*pursuant to Gov. Code Section* 54956.9(*d*)(1). Name of case: Robin Cassidy v. Northern Inyo Healthcare District.
- 14. Return to Open Session and report of any action taken (information item).
- 15. Adjournment.

In compliance with the Americans with Disabilities Act, if you require special accommodations to participate in a District Board meeting, please contact administration at (760) 873-2838 at least 48 hours prior to the meeting.



School-based health centers (SBHCs) are an innovative way to help ensure that children and youth have access to health care and do well in school. They are located on or very near school campuses and offer services in a place that is familiar, trusted, age-appropriate, and convenient for students and families. SBHCs are supported by many different communities because they respond to local needs. In 2000, there were 108 SBHCs; today, there are 293 and growing!



1203 Preservation Park Way, Suite 302, Oakland, CA 94612 | 510-268-1260 | info@schoolhealthcenters.org schoolhealthcenters.org | Updated September 2020

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The Bronco Clinic

A School-Based Health Center at Bishop Union High Colleen McEvoy RN, MSN, C-PNP



What is a School-Based Health Center (SBHC)?

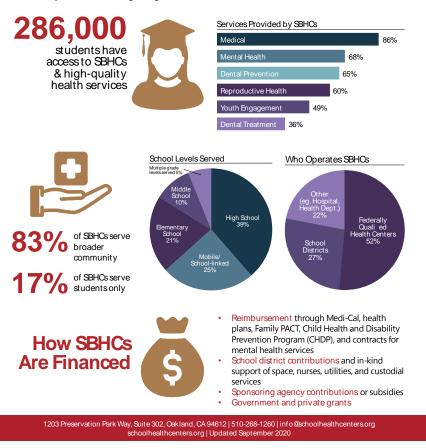
- A clinic in a school!
- What services do they offer? It varies-
- Medical 86%

- Reproductive Health 60%
- Mental Health 68% Youth Engagement 49%
- Dental 65%

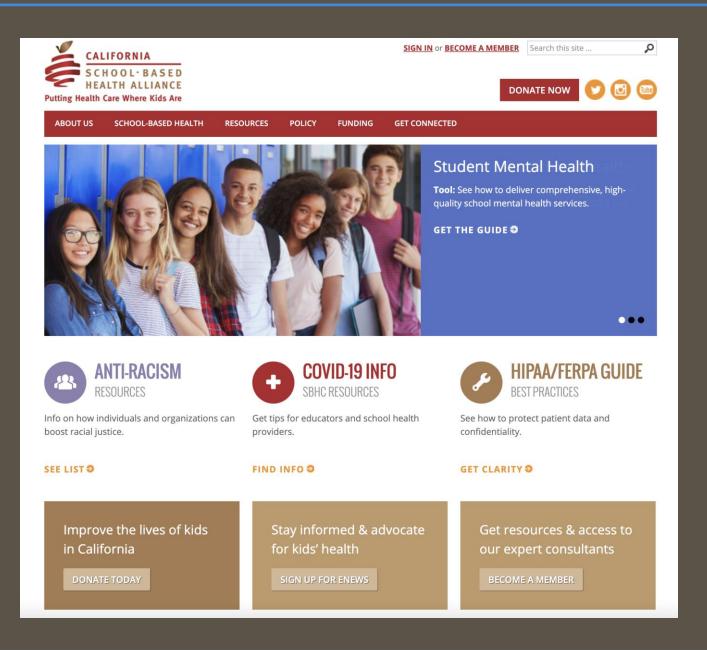
CALIFORNIA SCHOOL-BASED HEALTH ALLIANCE Putting Health Care Where Kids Are

School-Based Health Centers in California: A Growing Trend

School-based health centers (SBHCs) are an innovative way to help ensure that children and youth have access to health care and do well in school. They are located on or very near school campuses and of er services in a place that is familiar, trusted, age-appropriate, and convenient for students and families. SBHCs are supported by many dif erent communities because they respond to local needs. In 2000, there were 108 SBHCs; today, there are 293 and growing!









About Initiatives School Health Resources Training Advocacy User Menu

About Us

The School-Based Health Alliance works to improve the health of children and youth by advancing and advocating for school-based health care. Our vision is that all children and adolescents are healthy and achieving at their fullest potential.

In this Section

This section provides information about:

Our Staff Board of Directors State Affiliates Funders Consulting Services Newsroom



What We Believe

All children and adolescents deserve to thrive. But too many struggle because they lack access to health care services. School-based health care is the solution, bringing health care to where students already spend the majority of their time: in school. When health and education come together, great things happen. Attendance improves. Conditions like asthma or diabetes are better managed. Behavioral health issues get quick, expert attention.

Latest News

School-Based Health State Leaders Share their Experiences of the COVID-19 Pandemic *March 23, 2021* The School-Based Health Alliance (SBHA) distributed an online survey to learn how school-based health centers (SBHCs) across the country have



The Lack of Sex Education and Why It Needs to Change March 22, 2021 By Brooklyn Waller, Youth Advisory Council member Brooklyn is a freshman at the University of Arkansas. She advocates for those without ...

e All News

Benefits of SBHC's

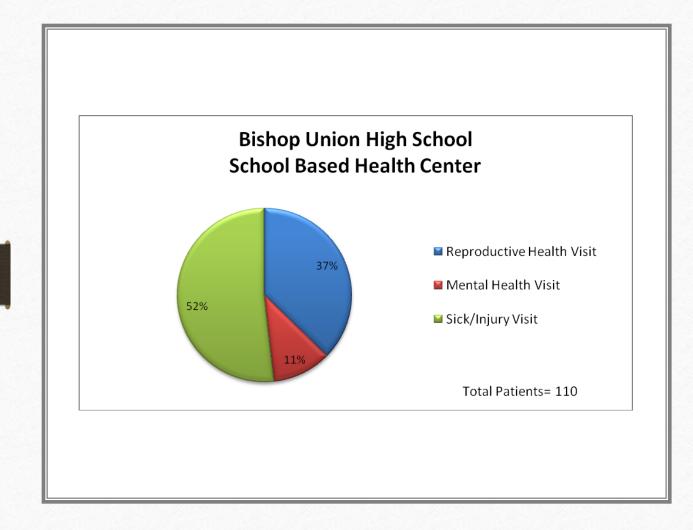
- Provides services to students where they are
- Decrease in student absences
- Increases access to healthcare
- Promotes responsibility in youth for their own health
- Helps busy parents stay at work

Bronco Clinic Started 01/2018



Services Provided

- Diagnosis and treatment of minor illness, injury and medical conditions
- STD screening and treatment
- Reproductive health related services (full range of birth control, condoms, pregnancy tests)
- Health education for students and families
- Coordinate care, including appropriate followup and referrals to health and social services on and off
- In class education on birth control, family planning and other health topics
- No charge for services to start

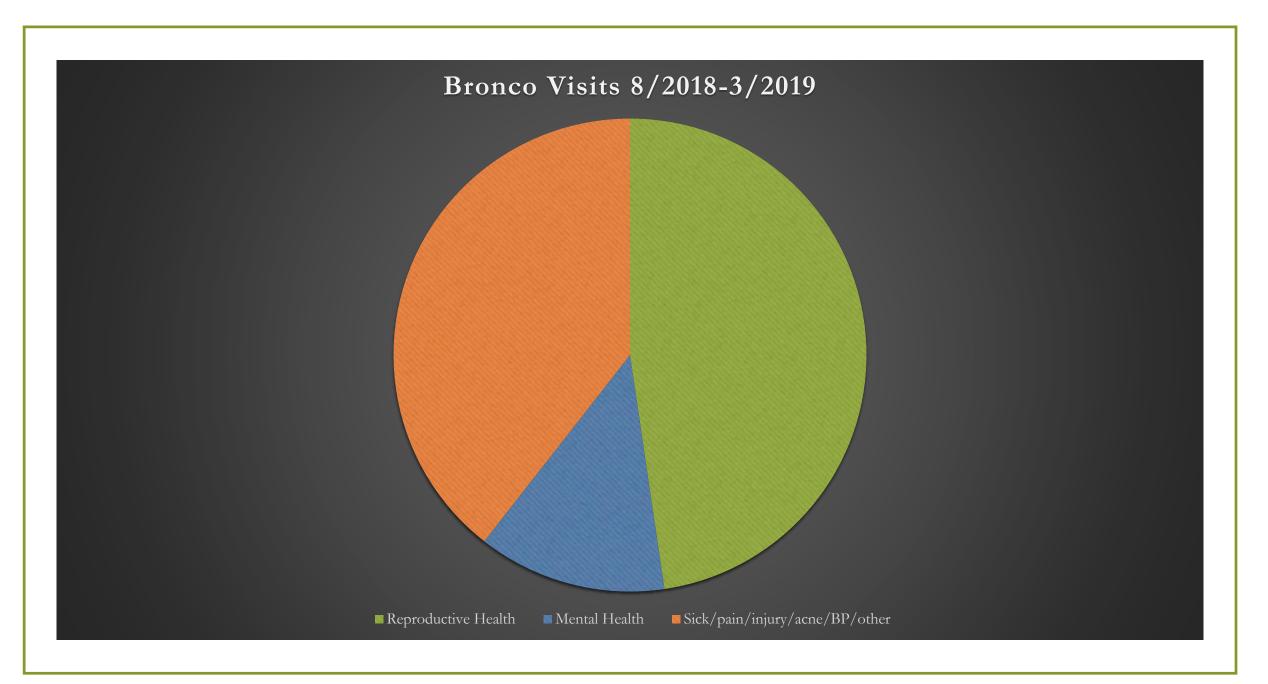


Student Response

- Slow at first but then steadily increasing.
- 1/2018-6/2018.
- There one day/week-110 visits

2018-2019

- Dr. Brown seeing patients at BUHS
- Open Tuesday and Thursday
- Did not tabulate full year
- By 3/31/21 had 285 visits



Plans

- Becoming Medi-Cal and Family Pact Providers
- Billing Insurance
- Consider Providing Sports Physicals?
- Improve Access to Mental Health?
- Clinic Remodel in Process

Sustainability

- Becoming Medi-Cal/ FPACT Providers
- Bill Insurance
- Research Grants
- Partner with Bishop School District?
- Get other Local Agencies Involved?

What services will be provided at the Bronco Health Clinic (BHC)?

The BHC will provide:

- Acute visits for minor illness and injuries
- Initial treatment for acute asthma attacks
- Acne treatment
- Treatment for depression, anxiety and substance abuse
- Reproductive health services including birth control, STD testing and treatment
- Over-the-counter medication for pain and allergies
- Referrals to Community Agencies
- Health Education

Can the Bronco Health Clinic do physicals and give immunizations?

Not at this time. We may be able to in the future. In order to do a comprehensive physical exam, we need to have supplies to test vision and hearing, appropriate size blood pressure cuffs, and immunizations available. We do not have the space or resources at the BHC to allow us to do that now. We can assist students in making an appointment with their primary care provider for annual physicals and completion of sports physical forms.

How much will it cost for my child to receive services at the health center?

At this time, we are not billing for services. This will likely change in the future. We will notify you if we do start billing insurance. Our goal is to provide full access to services regardless of insurance.

Do I need to be there for my child's visit?

No. We can get your verbal or written consent to see the student without you present. When a



student visits the center without a parent, the health center staff will ordinarily attempt to inform the parent/guardian and explain the reason for the visit and which services were provided.

For most services we need parental consent. By law minors can consent to certain services without their parents' approval, including treatment for sexually transmitted infections, HIV testing, and birth control.

Will the Bronco Health Clinic eliminate the need for the school nurses & school counselors?

No. The clinic does not replace school nurses or counselors. Rather, they complement services already being provided by placing additional resources in the schools.

School nurses and counselors are vitally important to comprehensive health care for students and we appreciate all that they do for students.

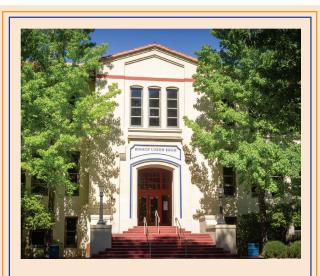
Who will staff the Bronco Health Clinic?

The providers at the clinic are Colleen McEvoy, a Certified Pediatric Nurse Practitioner (C-PNP), and Stacey Brown, MD. Colleen specialized in adolescent medicine in her studies at the University of California, San Francisco.

Colleen McEvoy, C-PNP

Will the Bronco Health Clinic eliminate the need for the school nurses & school counselors?

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Northern Inyo Healthcare District and Bishop Union High School have launched a schoolbased health center. The Bronco Health Clinic is now open and serves students enrolled at Bishop Union High School. Our goal is to improve student health and academic performance.

What is a School-Based Health Center (SBHC)? A school-based health center brings a healthcare provider into a school, so students can avoid health-related absences and receive the support they need to succeed in the classroom. California currently has almost 250 SBHCs and that number is growing.

Research shows that SBHCs have a positive impact on absences, dropout rates, disciplinary problems, and other academic outcomes.

Benefits of SBHCs

- ☑ Decrease in student absences
- ☑ Increase access to healthcare for youth
- ☑ Promote responsibility in youth for their health
- ☑ Help busy parents stay at work

Bronco Health Clinic

Bishop Union High School District 301 N. Fowler Street, Bishop CA 93514 Main Office: (760) 873-4275





Northern Inyo Healthcare District One Team. One Goal. Your Health.

ATENCIÓN: si habla español/castellano, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 760-873-5811 (TTY: 711).

注意:如果您使用繁體中文,您可以免費獲得語 言援助服務。請致電 760-873-5811 (TTY:711) Bronco Health Clinic



Operated by Bishop Union High School and Northern Inyo Healthcare District

A Community Partnership Working to Improve Academic Success & Health of All Students



Title: Vendor Credentialing	
Scope: Purchasing	Department: Compliance, Purchasing
Source: Director of Purchasing	Effective Date:

Policy:

Northern Inyo Healthcare District credentials all vendors and representatives from outside businesses or organizations according to state and federal guidelines, and Joint Commission recommendations. Credentialing requirements promote patient health, safety, confidentiality, and conformance with regulatory guidelines for the District.

Definition(s)

Healthcare Industry Representatives (HCIR) are defined as individuals seeking access to a healthcare organization (HCO) and who are employed by a third party or are independent contractors. These individuals may or may not be seeking access to patient care and/or procedural areas within the organization. Examples of HCIR's include, however are not limited to, clinical education specialist, supplier executive, construction worker, homecare provider, social services, delivery personnel, durable medical equipment staff, supplier sales representative, non-employee maintenance, biomedical technician, union representative, and contract labor.

Contracted Labor, Clinical and Collaborative Partners – described as contract employees/vendors that may provide direct patient care and/or services on behalf of an organization; typically, a contractual relationship exists between the HCO and the vendor/service provider. All non-clinical contract labor also falls within this category. Examples – patient care personnel can include, but are not limited to, nursing, therapy, pharmacy, dietary, activities staff, drug/alcohol counselors, patient care technicians

Requirements; credentialing for these individuals, as with all contracted vendors, should be addressed in Human Resources processes. Credentialing of these individuals is not within the scope of this document and the proposed recommendations outlined herein.

Patient Care Areas — Patient care areas include, but are not limited to, the following: patient rooms, operating rooms, nurses stations, places where patients receive treatment, such as radiology and therapy areas, and corridors in patient treatment areas (e.g., including corridors near an operating room but not including corridors near a cafeteria).

Referrals or Care Continuum HCIRs – individuals who primarily serve in a clinical support role and most often receive patients or provide equipment for patient use in the next site of care. Their role requires them to work in patient care areas and/or provide assistance to or consult with patient care staff. Examples may include, but are not limited to, assisted living, hospice, rehabilitation facilities' staff, home care representatives, long-term care staff, etc.

• *Requirements*; required to meet specific requirements within their organizations equivalent to credentialing requirements. At a minimum these HCIRs would be required to wear a name tag identifying their company and personal name. Proof of credentialing and immunizations should be made available to the HCO upon request of the HCIRs' employer within 24 hours.

Level I – HCIR Guests – individuals who may seek access to an HCO's facility, however do not have access to clinical areas, do not provide technical assistance, do not operate equipment, do not enter patient care areas and do not provide assistance or consult with patient care staff or clinicians. These may include company representatives that visit less than three times per year, are accompanied by a credentialed HCIR and are not entering patient care areas. May include, but are not limited to, delivery vendors, construction labor, non-clinical contract vendor, and vendor's management or non-clinical implementation specialists. If

1

Title: Vendor Credentialing	
Scope: Purchasing	Department: Compliance, Purchasing
Source: Director of Purchasing	Effective Date:

guest is a frequent visitor to the HCO and is not a union business representative, contracted or referral HCIR he or she should be elevated to a Level II. Level I HCIR should be accompanied in the facility, except that a union representative shall not be accompanied in the facility.

Level II – Tech Support and Sales HCIR –Primarily serve in a technical support role or product and service sales role. They may provide technical assistance, assist with operation of equipment, and be in patient care environment that is not defined as restricted or sterile procedure area. Their role requires them to often work in patient care areas where other visitors may be present and/or provide assistance to or consult with patient care staff. This also includes vendor and supplier sales representatives that interact with care providers for the purpose of sales, education, and technical support. Examples may include, but are not limited to, durable medical equipment providers, medical device sales and pharmacy representatives, representatives calling on departments such as laboratory and radiology, as well as diagnostic representatives.

Level III – Clinical Support and Sales HCIR – Individuals who serve primarily in a clinical support or product sales/service role while attending or observing patient procedures (including sterile or restricted areas). Often provide technical information and serve as a resource for the medical professional, by responding to questions regarding the appropriate operation of the medical equipment. These representatives may not scrub in on a procedure, touch patients, or operate, control or touch any equipment being used on a patient, except at the request of the attending physician, and for the sole purpose of ensuring patient safety. They may troubleshoot and offer technical assistance; calibrate or program equipment; and provide other technical support needed to ensure that the respective equipment functions safely.

Requirements:

The following chart outlines the credentialing requirements managed within the supplier representative registration system (excluded activities managed with HCO's security and HR systems):

Administrative Credentials		Levels	
Administrative Credentials	III	II	Ι
HCO Name Tag; name tag produced by an automated vendor credentialing system or the HCO or equivalent as determined by HCO	Х	X	Х
Employment Verification: memo or letter on the supplier's letterhead will serve as acceptable documentation	Х	X	
Proof of Liability Insurance: A general Acord Certificate of Liability Insurance or letter of attestation on HCIR's company's letterhead as evidence that the company maintains insurance necessary to protect itself, its employees, directors and officers from liability in acceptable forms and limits. This document should not specify a certificate holder (e.g., healthcare system or customer name). Specifically, the vendor will maintain commercial general liability in minimum	Х	X	

Title: Vendor Credentialing	1			
Scope: Purchasing	Department: Com	pliance, Purch	asing	
Source: Director of Purchasing	Effective Date:			
amounts of One Million Dollars (\$1,000,000) per occurrence			
and Three Million Dollars (\$3,000,000) in th	e annual			
aggregate. The vendor will notify the custom	ner within ten (10)			
days of any substantial reduction, cancellation	on or termination			
of any insurance coverage. The vendor will	provide evidence			
of insurance coverage	-			
			Levels	
Administrative Credentials (cont)	III	Π	Ι
Proof of Criminal Background Check		X	Х	
Code of Ethics and Professional Conduct	Policy	X	X	
Corporate Policy Manual	· ·	X	X	
Employee Awareness and Understanding	of False Claims	X	X	
Vendor Privacy Form -		X	X	
Sanctions Checklist: Including OFAC (ter	rorism), GSA			
(failed contracts), OIG (Medicare/aid), D	EA (drug	X	X	Х
enforcement), FDA (food/drug), TRICAR	E, PHS (public	Λ	Λ	Λ
health) Federal Register, State				

		Levels	
Training Credentials	III	II	Ι
Vendor Orientation Manual	X	X	
Operating Room Protocols (Sterile/Aseptic Controls)	Х		
HIPAA Training	Х	X	
Product Training/Competency & Medical Device			
Reporting (MDR) Requirements Training (as applicable)	Х	Х	
per FDA guidelines			
Ethics/Conduct Policy and Procedure	Х	Х	
HCO Specific Policies: organization specific policies that are			
relevant to all HCIR's may be placed in the credentialing			
system for the HCIRs to indicate they have read the documents	Х	Х	
(policy content required to be known by the HCIR may be			
placed in the Vendor Orientation manual)			
Hand Hygiene	Х	X	X
Infection Control Reference Guide	Х	X	
Bloodborne Pathogens	Х	X	

Immunization Credentials	Levels		
Infinumzation Credentiais	III	II	Ι
Tuberculosis Testing per CDC Guidelines	Х	Х	
Influenza Immunization following NIHD Policy and Procedure	Х	Х	Х
MMR	Х	Х	

Department: Compliance, Purchasing	
Effective Date:	
Effective Date.	

Hepatitis B	Х	Х	

Enforcement:

Northern Inyo Healthcare District, the HCIR, and their employer have a responsibility to enforce requirements and practices that are in the best interest of the patients and the organization. Clear and effective communication and corrective escalation processes should be articulated within the HCO and with the HCIR's employer to facilitate rapid resolution of any violations or issues that may need to be addressed by any of the parties. Infractions will be classified as follows (dependent on severity NIHD reserves the right to move directly to actions outlined in Type 3 Infraction):

- 1. **Type 1 Infraction** non-compliance with requirement or violation of a requirement; action will be direct communication with the HCIR and written communication to his or her manager.
- 2. **Type 2 Infraction** non-compliance or violation has not been resolved, and additional violation has occurred; or patient safety and/or confidentiality have been compromised; action will be written notification to the HCIR and his or her manager, as well as potential suspension dependent on the nature of the seriousness of the violation or non-compliance.
- 3. **Type 3 Infraction -** Situation has not been rectified, there has been a repeated violation subsequent to a second notice, or business operations, patient safety, and/or confidentiality have been severely compromised/impacted; action will be written notice to the HCIR, his or her manager and the employer that the HCIR is suspended from access to the facility until appropriate resolution of the infraction(s) or the HCIR's employer and the HCO can come to a resolution of the situation. Departments will be notified if a respective HCIR is no longer permitted in the facility.

In all instances, the HCIR employer should take responsibility for assuring continuity and quality of service and patient care safety in the event an HCIR is unable to perform their duties.

References:

- 1. Joint Commission standards
 - a. EC.02.01.01
 - b. RI.01.01.01
 - c. IC.02.01.01
 - d. LC.02.02.05, EPs 1, 3, 4

Committee Approval	Date
NCOC	2/22/2021
Infection Control Committee	6/3/19
Compliance and Business Ethics Committee	4/29/19
Executive Team	6/17/19
Medical Executive Committee	6/10/19
Board of Directors	6/19/19
Last Board of Directors Review	6/19/19

Responsibility for review and maintenance: Director, Materials Management Index Listings:

Title: Vendor Credentialing	
Scope: Purchasing	Department: Compliance, Purchasing
Source: Director of Purchasing	Effective Date:

Developed: 04/2018nl Revised: 2/2019pd Reviewed:

NIHD BOARD OF DIRECTORS AD HOC COMMITTEES

Active Committees and Members

Medical Staff / Board Relations Committee

- Sharp, Turner

Physician Compensation Subcommittee

- Sharp, Veenker

NIHD / SMHD Joint Relations Committee

- Sharp, Veenker

NIHD Medical Staff Wellness Survey Ad Hoc Committee

- Sharp, Veenker



TO:NIHD Board of DirectorsFROM:Sierra Bourne, MD, Chief of Medical StaffDATE:April 6, 2021RE:Medical Executive Committee Report

The Medical Executive Committee met on this date. Following careful review and consideration, the Committee agreed to recommend the following to the NIHD Board of Directors:

- A. Policies and Procedures (action items)
 - 1. Echocardiogram Performance Protocol
 - 2. Medical Staff Department Policy Hospital Medicine
 - 3. Stabilization and Resuscitation of the Newborn
 - 4. Standardized Procedure for the Admission of the Well Newborn
 - 5. Standardized Procedure for COVID-19 Test Results
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 - 1. Rainier Manzanilla, MD (cardiology) effective 3/1/2021
 - 2. Diana Havill, MD (psychiatry, Adventist Health) effective 4/30/2021
- E. New Medical Staff Leadership Org Chart (*information item*)
- F. Medical Executive Committee Meeting Report (information item)

Title: Echocardiogram Performance Protocol	
Scope: Echocardiographer	Manual: Cardiopulmonary
Source: Cardiopulmonary Manager	Effective Date:

PURPOSE:

To provide qualitative and quantitative information regarding cardiac structure and function.

POLICY:

Physician order and indications required for all exams performed.

MATERIALS:

Duplex Scanner Appropriate frequency transducer Scanning gel EKG Electrodes Patient's Chart if inpatient or physician order form if outpatient

PROCEDURE:

- 1. Introduce yourself, and verify patient identity according to hospital procedure.
- 2. Explain the procedure to the patient and answer patient questions.
- 3. Verify the physician order and indication prior to starting examination.
- 4. Allow for patient privacy for all patients, (Inpatients Close curtains, keep patients covered appropriately with hospital gown, and towel(s). Outpatients Close exam room doors, instruct the patient to change into a hospital gown, step out to allow the patient privacy while changing, keep the patient covered appropriately with the hospital gown, and towel(s).
- 5. Every exam should have an EKG with a readily definable P wave and QRS.
- 6. Record patient's height and weight and BP in order that indices will be automatically calculated.
- 7. All images/waveforms should be recorded at an appropriate depth to avoid cutting off anatomical/hemodynamic information but insuring the images/waveforms are not too small to interpret accurately.
- 8. All measurements should be recorded.
- 9. All spectral waveform displays should be recorded at 100 mm/sec and frozen for measurements. Other sweep speeds may be used to demonstrate flow information but should not be used for measuring.
- 10. The sonographer shall meticulously evaluate any flow abnormality or area of questionable function, or anatomy.
- 11. Appropriate depth, frequency, frame rate, color scales, and focal zone adjustments should be continually made to optimize image quality. All the following captures shall have an optimum EKG recording.
- 12. One or more cardiac cycles will be captured as needed to adequately demonstrate anatomic and hemodynamic information.
- 13. Spectral Doppler, in the presence of atrial fibrillation, 5 individual cardiac cycles will be captured and averaged.

Title: Echocardiogram Performance Protocol	
Scope: Echocardiographer	Manual: Cardiopulmonary
Source: Cardiopulmonary Manager	Effective Date:

Minimal Basic Imaging Views for Routine Studies

Parasternal Long Axis View Right Ventricular Inflow Tract View Parasternal Short Axis View Apical Four-Chamber View Apical Five-Chamber View Apical Two-Chamber View Apical Long Axis View Subcostal Four-chamber view Subcostal Short Axis Inferior Vena Cava View(IVC) View Abdominal Aorta View

Reference: American College of Cardiology/American Heart Association Guidelines for the Clinical Application of Echocardiography.

PARASTERNAL TRANSDUCER POSITION

Parasternal Long Axis View

- 1. **2D** Tilt transducer to obtain largest left ventricular end-diastolic dimension. Place transducer so that interventricular septum (IVS) and anterior aortic wall are at the same level (mitral valve will usually be in center of sector).
- 2. Use increased depth to R/O effusions, and then decrease depth.
- 3. Assess all anatomy for size, structure, and function.
- 4. Zoom and measure the left ventricular outflow tract (LVOT) diameter in systole.
- 5. Measure the aortic root and ascending aorta using 2D imaging if enlarged.
- 6. If any valve is poorly visualized or pathology is present, zoom the 2D image.
- 7. If any question of prolapse, have patient perform a <u>Valsalva</u> maneuver using 2D imaging.
- 8. **M-mode -** (sweep speed = 50 cm/sec). M-mode cursor should be perpendicular to all structures measured.
- 9. Assess all anatomy for size, structure, and function.
- 10. Measure the aortic root at end-diastole.
- 11. Measure the left atrium at end-systole (at the greatest anterior-posterior dimension).
- 12. Record the mitral valve (do not measure).
- 13. Measure the anterior septum, left ventricular internal diameter, and posterior wall at enddiastole.
- 14. Measure the left ventricular internal diameter at end-systole.
- 15. If unable to obtain the above measurements by M-mode, attempt the measurements using 2D imaging.
- 16. If any question of prolapse, have patient perform a <u>Valsalva</u> maneuver using M-Mode.

Title: Echocardiogram Performance Protocol	
Scope: Echocardiographer	Manual: Cardiopulmonary
Source: Cardiopulmonary Manager	Effective Date:

17. **Color Doppler** – Interrogate each individually: The LVOT and aortic valve, mitral valve, and inter-ventricular septum – Angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet(s), sub-aortic obstruction, or ventricular septal defect(s).

Right Ventricular Inflow Tract View

- 1. **2D** -Assess all anatomy for size, structure and function.
- 2. Tricuspid leaflets to evaluate structure and function
- 3. **Color Doppler** Interrogate the tricuspid valve, angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 4. **Spectral Doppler** Use continuous wave Doppler to measure the tricuspid regurgitant jet if present and obtain the right atrial/right ventricular (RA/RV) gradient, for calculation of the pulmonary artery pressure.

Parasternal Short Axis View

- 1. 2D Basal level
- 2. Assess the aortic valve and all other anatomy for size, structure and function.
- 3. If question of pathology, use the zoom feature.
- 4. If necessary angle superiorly to evaluate the proximal aortic root for endocarditis, aortic dissection, prosthetic valve abnormalities/problems etc.
- 5. **Color Doppler** Interrogate the aortic valve (AOV) including the left atrium, angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 6. If necessary angle superiorly to evaluate the proximal aortic root for endocarditis, aortic dissection, prosthetic valve abnormalities/problems, etc.
- 7. **2D** Assess the tricuspid valve and all other anatomy for size, structure and function.
- 8. If question of pathology use the zoom feature.
- 9. **Color Doppler -** Interrogate the tricuspid valve (TV), angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 10. **Spectral Doppler -** Use continuous wave Doppler to evaluate the tricuspid regurgitant jet if present and obtain the RA/RV gradient, for calculation of the pulmonary artery pressure.
- 11. 2D Assess the pulmonic valve and all other anatomy for size, structure and function.
- 12. If question of pathology use the zoom feature.
- 13. **Color Doppler -** Interrogate the pulmonary valve (PV), angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 14. **Spectral Doppler** Measure using pulsed wave Doppler measure right ventricular outflow tract (RVOT) peak velocity.
- 15. Using continuous wave Doppler measure Peak velocity.
- 16. Use continuous wave Doppler to evaluate the pulmonic regurgitant jet if present and measure to determine the pulmonary artery end-diastolic pressure.
- 17. **2D** Mitral valve (MV) level Assess the mitral valve and all other anatomy for size, structure, and function.
- 18. If question of pathology use the zoom feature.
- 19. If stenosis is present, planimeter the valve.

Title: Echocardiogram Performance Protocol		
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- 20. Color Doppler Can be used if pathology present.
- 21. **2D** Left ventricle (LV) / papillary muscle level Assess the LV and papillary muscles and all other anatomy for size, structure, and function.
- 22. 2D LV apical level Assess the LV and all other anatomy for size, structure, and function.

APICAL TRANSDUCER POSITION Apical 4 Chamber

- 1. **2D** Evaluate all cardiac chambers, valves, and other anatomy for size, structure, and function; take care not to foreshorten the image.
- 2. If question of pathology use zoom feature.
- 3. If thrombus is suspected, maximize frame rate, optimize your image, and if indicated, Definity can be used to help R/O thrombus, (See policy on Ultrasound Contrast Agents Definity).
- 4. If the ejection fraction(EF) is < 50% measure and calculate the LV EF using the Simpson's **<u>Bi-Plane Method</u>**.
- 5. Measure left atrial volume using the <u>Bi-Plane Method</u>; set focus at LA(Left Atrium) and maximize frame rate; using the calc. package, planimeter the 4 chamber end-diastolic LA volume.
- 6. **Color Doppler** Interrogate all cardiac chambers and valves. Angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 7. Color M-mode Mitral valve If Ejection Fraction is < 50% or diastolic dysfunction, measure the left ventricular flow propagation velocity; sector should only show the LV and MV; move the color baseline up to approximately 30 40; color gain should be set to just below saturation; turn the M-mode on and place line through the left ventricular inflow, take care to be as parallel to flow as possible; set distal sample marker at the level of annulus, set the proximal sample shallow enough to include the entire left ventricular inflow tract (LVIT) pattern; press freeze when you have a good tracing; change the color map to "Red/Blue split variance" color map; select LV Flow Propagation from the calc. package and measure from the initial MV opening along the blue slop for a total of 4 cm.</p>
- 8. **Spectral Doppler -** If mitral insufficiency is present, measure the proximal isovelocity hemispheric surface area (PISA) (for Right Ventricle (RV) and Effective Regurgitant Orifice Area (ERO); Zoom the mitral valve (MV); set the color Doppler regurgitant aliasing velocity to 30-40 cm/sec.; from the calc. package select PISA; measure diameter/radius of

Title: Echocardiogram Performance Protocol	
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hemisphere; then with CW Doppler, Doppler the mitral regurgitation (MR) and trace the envelope for the max velocity and VTI.

- 9. Pulsed wave (PW) Doppler at the tips of the mitral leaflets and measure E velocity, and A velocity for the E/A ratio, and the deceleration time.
- 10. Pulsed wave Doppler at level of the annulus and measure the A duration.
- 11. If mitral stenosis is present, use continuous wave (CW) then measure the mean pressure gradient, and the pressure half time.
- 12. For cardiac tamponade, pericardial constriction, or restrictive cardiomyopathy, turn on Respirometer and image for 15 seconds at sweep speed of 25 mm/sec
- 13. **Tissue Doppler -** Doppler Tissue Imaging of the mitral annulus; Adjust sample volume size to 5 mm; Place sample volume on the septal mitral annulus or (Lateral if necessary); Adjust Doppler scale 10 30 cm/s depending on the maximum velocity; Optimize Doppler filter until clear waveforms are achieved; Measure the annulus S wave, E wave, and A wave velocities.
- 14. **Pulmonary Vein Interrogation** Use color Doppler with appropriate color scale to identify pulmonary vein flow; place Doppler sample volume (SV) 1-3 cm into right upper pulmonary vein (RUPV); SV size 2-4 mm; sweep speed 100 mm/sec; <u>2</u> cardiac cycles. Measure S wave, D wave.

Apical 5 Chamber

- 1. **2D** Image the aortic valve and LVOT. Evaluate all cardiac chambers, valves, and other anatomy for size, structure, and function.
- 2. If question of pathology use zoom feature.
- 3. **Color Doppler** Interrogate the LVOT and aortic valve, angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 4. **Spectral Doppler** PW Doppler of LVOT (place sample volume .5-1cm below valve) and trace the envelope.
- 5. If a regurgitant jet and measure the pressure half time.
- 6. If asymmetric septal hypertrophy (ASH) or a subaortic obstruction is suspected, use PW Doppler in LVOT to rule out subaortic obstruction. If present zoom LVOT and evaluate by sampling from the LV slowly into the LVOT, looking for a sudden increase of the subaortic velocities and trace the envelope.
- 7. CW the aortic valve to evaluate for aortic stenosis. Obtain the highest velocity and trace the envelope.

Apical Four Chamber View (continued)

- 1. **2D** Right heart Interrogation. Optimize imaging to assess all anatomy for size, structure, and function.
- 2. If question of pathology use zoom feature.
- 3. Measure the right atrium at its widest at end-systole.
- 4. Measure the right ventricle at its widest at end-diastole.

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- 5. Two dimensional zoom of tricuspid valve if abnormal appearing or poorly visualized in four chamber image.
- 6. **Color Doppler** Interrogate the tricuspid valve, angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- Spectral Doppler PW Doppler right ventricular inflow tract at tips of TV; SV size 1-2 mm; adjust apical 4-chamber so that RV inflow is parallel to Doppler cursor. Measure the E velocity.
- 8. If tricuspid regurgitation is present, use continuous wave Doppler to measure the tricuspid regurgitant jet and obtain the RA/RV gradient, for calculation of the pulmonary artery pressure.
- 9. For Cardiac Tamponade or Constriction, turn on Respirometer and image for 15 seconds at sweep speed 25 mm/sec.

Apical Two-Chamber View

- 1. **2D** Evaluate the left heart and MV, and other anatomy for size, structure, and function; take care not to foreshorten the image.
- 2. If question of pathology use zoom feature.
- 3. Complete the Simpson's Bi-Plane LV ejection fraction.
- 4. Complete the Bi-Plane LA volume measurement, set focus at LA and maximize frame rate; using the calc. package, planimeter the 2 chamber end-diastolic left atrial (LA) volume.
- 5. **Color Doppler** Interrogate the mitral valve, angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 6. **Spectral Doppler -** If mitral insufficiency is present, measure the PISA (for R.V. and E.R.O.); Zoom the MV; set the color Doppler regurgitant aliasing velocity to 30-40 cm/sec.; from the calc. package select PISA; measure diameter/radius of hemisphere; then with CW Doppler, Doppler the MR and trace the envelope for the max velocity and velocity time integral (VTI).
- 7. If mitral stenosis is present, use CW then measure the mean pressure gradient, and the pressure half time.

Apical Long Axis View

- 1. **2D** Evaluate the left heart chambers and the MV, LVOT, AOV and other anatomy for size, structure, and function; take care not to foreshorten the image.
- 2. If question of pathology use zoom feature.
- 3. **Color Doppler** Interrogate the MV, LVOT, and AOV, angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 4. **Spectral Doppler -** If a ortic insufficiency is present and Doppler angle is good, perform CW Doppler of the regurgitant jet and measure the pressure half time.
- 5. PW Doppler of LVOT (place sample volume .5-1cm below valve) and trace the envelope.
- 6. If ASH or a subaortic obstruction is suspected, use PW Doppler in LVOT to rule out subaortic obstruction. If present zoom LVOT and evaluate by sampling from the LV slowly

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into the LVOT, looking for a sudden increase of the subaortic velocities and trace the envelope.

- 7. CW the aortic valve to evaluate for aortic stenosis. Obtain the highest velocity and trace the envelope.
- 8. CW the aortic valve to evaluate for aortic stenosis. Obtain the highest velocity and trace the envelope.

SUBCOSTAL TRANSDUCER POSITION

Four Chamber View

- 1. **2D** Evaluate all cardiac chambers, valves, and other anatomy for size, structure, and function; take care not to foreshorten the image.
- 2. If question of pathology use zoom feature.
- 3. **Color Doppler** Optimize color scale Interatrial and interventricular septum tilt transducer anterior and posterior to scan entire IAS and IVS with color Doppler to R/O shunt.
- 4. Interrogate all cardiac chambers and valves. Angle the transducer as necessary to best show the regurgitant jet(s), stenotic jet.
- 5. **Spectral Doppler** PW and or CW all valves, the interatrial septum (IAS) or interventricular septum (IVS) as needed.

Short Axis View

- 1. **2D** Left ventricle / papillary muscle level Assess the LV and papillary muscles and all other anatomy for size, structure, and function.
- 2. **2D** MV level Assess the mitral valve and all other anatomy for size, structure, and function.
- 3. Color Doppler Can be used if pathology present.
- 4. **2D** Basal level Evaluate all cardiac chambers, valves, and other anatomy for size, structure, and function as necessary.
- 5. **Color Doppler** Evaluate all cardiac chambers, valves, and other anatomy for function as necessary.
- 6. **Spectral Doppler** Evaluate all cardiac chambers, valves, and other anatomy for function as necessary.

Inferior Vena Cava View

- 1. **2D** Respiratory variation Capture a minimum of a <u>4</u> beat loop.
- 2. Measure maximal diameter, (1 2 cm from RA junction), use calc. package, inferior vena cava (IVC) to measure. Max diameter should be 1.7 cm or less.
- 3. Measure minimal diameter with inspiration, ("sniff").
- 4. Color Doppler and pulsed wave Doppler of the IVC and hepatic veins to further demonstrate increased RA pressures.
- 5. Assess as much of the IVC for any embolic source if pulmonary embolism is suspected.
- 6. Determine RA pressure:a. IVC not dilated and > 50% inspiratory collapse = 5 mmHg.

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- b. IVC not dilated and < 50% inspiratory collapse = 10 mmHg.
- c. IVC dilated and > 50% inspiratory collapse = 15 mmHg.
- d. IVC dilated and < 50% inspiratory collapse = 20 mmHg.

Upper Abdominal Aorta View

1. **2D** - Long axis of the vessel in real time, look for abnormalities such as calcific plaque, aneurysm, and aortic dissection, (intimal flap). If abnormalities seen or suspected, capture additional views including short axis, color Doppler, and spectral Doppler.

SUPRASTERNAL TRANSDUCER POSITON (When Indicated)

- 1. Reposition patient on back with pillow under shoulders/neck if possible to optimize suprasternal notch (SSN) images.
- 2. **2D** Long axis aortic arch, if possible visualize branches. Evaluate for calcific plaque, aneurysm, and dissection.
- 3. Color Doppler Interrogate arch with color Doppler.
- 4. **Spectral Doppler** PW and CW ascending and descending aorta for direction of flow and max velocity.

AORTIC STENOSIS – The following additional spectral Doppler must be done on all patients with aortic stenosis –

1. With a dedicated CW probe, interrogate the aortic outflow from the apical, right parasternal, and suprasternal windows to determine the max aortic velocity. (2 views must be obtained with at least 1 clear envelope).

ADDITIONAL VIEWS AS NEEDED:

- A. Saline Contrast Echo should be performed if clinically indicated, in patients with unexplained right ventricular dilatation, transient ischemic attack/cerebrovascular accident (TIA/CVA) patients, and inpatients with diagnosis of rule out intracardiac shunt when color Doppler is negative. Contrast echo must be performed with a Valsalva maneuver and Cough.
- B. When trauma or disease of the aorta is suspected, the aorta should be interrogated with 2D (with diameter measurements), color Doppler, and spectral Doppler, from the following windows: Parasternal long and oblique short axis views (aortic root and proximal ascending aorta), apical 4 and 2 chamber views (descending thoracic aorta), subcostal view (upper abdominal aorta), suprasternal view (aortic arch).
- C. Valsalva Maneuver on all patients suspected of having mitral valve prolapse or hypertrophic obstructive cardiomyopathy or suspected Pseudonormal-filling pattern.

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D. All rule out pericardial effusions and post-op cardiac surgical patients must have subcostal four chamber and short axis views to rule out loculated pericardial effusion or thrombus inferior to the right ventricle or right atrium.

<u>RESULTS</u>: The ordering cardiologist or reading cardiologist must be called on all "STAT" exams immediately upon completion to notify them the exam is ready to be read.

PROCESSING:

- A report is to be opened on the Synapse reporting system to include:
 - All patient demographic information.
 - Indications for exam and pertinent history.
 - A text statement of the significant findings in the appropriate field.
 - Limitations of the exam (segments that could not be evaluated and for what reason)
- Appropriate billing charges must be entered into the charge system.
- The reading physician will make additions and changes as necessary, add the conclusions, and finalize the report.

REFERENCES:

1. Feigenbaum, H. Echocardiography, Fifth Edition, Williams & Wilkins, 1994

CROSS REFERENCES:

- 1. Stress Echo
- 2. Echocardiography use of Contrast
- 3. Lippincott: Transesophageal echocardiography, assisting

Approval	Date
CCOC	12/3/2020
Outpatient Medicine Committee	3/4/2021
Inpatient Medicine Committee	3/10/2021
Medical Executive Committee	4/6/2021
Board of Directors	
Last Board of Directors Review	

Developed: as 11/30/2020 Reviewed: Revised:

NORTHERN INYO HEALTHCARE DISTRICT MEDICAL STAFF POLICY AND PROCEDURE

Title: Medical Staff Department Policy – Hospital Medicine	
Scope: Hospitalist Practitioners	Manual: Medical Staff
Source: Chief of Inpatient Medicine	Effective Date:

PURPOSE: To delineate clear expectations for practitioners in the Department of Hospital Medicine at Northern Inyo Healthcare District (NIHD).

POLICY: All practitioners granted privileges in the Department of Hospital Medicine will adhere to the following protocols.

PROTOCOL:

- 1. Admissions and Consults
 - a. Any admission or consultation called to the Physician will become the responsibility of that Physician. If the admission or consult is called to Physician during the final 60 minutes of their shift AND the admission along with uncompleted work from his/her shift would significantly prevent the Physician from completing their shift in a reasonable amount of time, the Physician may choose to hand-off the admission or other work to the oncoming hospitalist, within reason. This decision must be made in mutual agreement with the Emergency Department (ED) physician AND the Physician must make every effort to not slow throughput in the ED or delay patient care. Exceptions to the hand-off would be if the admission or consultation is an ICU patient, critically ill, requires time sensitive testing or treatment, or there are more than one other pending admission(s) in the ED.
- 2. Credentialing:
 - a. Physician practitioners in the Department of Hospital Medicine must be board certified or board eligible by the American Board of Family Medicine or the American Board of Internal Medicine and are strongly encouraged to be members of the Society of Hospital Medicine.
- 3. Emergencies/Codes:
 - a. Physician shall respond to in-house emergencies in the same manner as other members of the Medical Staff of Northern Inyo Hospital. If physician is not in house, he/she is expected to return to the hospital within 20 minutes.
- 4. In-House Coverage
 - a. Physicians performing Hospitalist Services are not required to be in house at all times however, they are generally expected to be in house from 8 am to 5 pm if not longer for a full census. It is the expectation that day shift hospitalist will be fully prepared (have seen all patients and reviewed all charts) for the morning Multidisciplinary Team meeting and will fully participate in the discussion of each patient presented. Night shift Physician is encouraged but not required to stay in-house and utilize the hospitalist call room especially if the Emergency Department is busy, the census is full or there is a critically ill or concerning patient(s). If Physician is off-campus, they are still expected to answer all calls, enter their own orders and return to the hospitalist Director or Chief of Inpatient Medicine may request a revocation of off-campus privileges and may request Physician to provide in-house coverage for the entirety of their 12 hour shift.

NORTHERN INYO HEALTHCARE DISTRICT MEDICAL STAFF POLICY AND PROCEDURE

Title: Medical Staff Department Policy – Hospital Medicine	
Scope: Hospitalist Practitioners	Manual: Medical Staff
Source: Chief of Inpatient Medicine	Effective Date:

- 5. Response time
 - a. Physician shall respond to NIHD Emergency Department or other NIHD staff requests within twenty (20) minutes of call. If the request is for an admission or consultation, a reasonable goal is to see the patient within 20 minutes so as to formulate a plan and disposition. If the Physician is otherwise preoccupied with patient care that takes a higher precedence such as a critically ill patient, Physician will discuss with ED physician or other NIHD staff to let them know when they can reasonably expect to see the patient. Every effort should be made to see the patient, determine disposition and have orders in one (1) hour after admission request.
- 6. Focused Professional Practice Evaluation (FPPE):
 - a. Practitioners new to NIHD will be expected to complete FPPE as per policy. Hospitalists sign out to each other at the start/end of each shift so multiple charts are reviewed on an ongoing basis. Verbal sign outs are the standard (email sign outs are acceptable but the exception) and feedback is given in real time. Peer review results and Unusual Occurrence Reports are incorporated into FPPE as appropriate.
- 7. Ongoing Professional Practice Evaluation (OPPE):
 - a. Practitioners will be expected to participate in all requirements of OPPE as per medical staff policy. Hospitalists sign out to each other at the start/end of each shift so multiple charts are reviewed on an ongoing basis. Verbal sign outs are the standard (email sign outs are acceptable but the exception) and feedback is given in real time. Peer review results and Unusual Occurrence Reports are incorporated into OPPE as appropriate.
- 8. Peer Review:
 - a. Inpatient charts identified by critical indicators will all be subject to peer review as per the peer review policy.
- 9. Re-Entry:
 - a. Hospitalist practitioners may be eligible for re-entry per policy.
- 10. Services Provided
 - a. Physician should address and/or manage, within the scope of their training and responsibility, all internal medicine issues, as requested for all patients admitted to NIHD. Physician should also provide consultation and management services to patients as requested by NIHD Medical Staff members, visiting Specialist Physicians, the Emergency Department, and other departments as appropriate.

CROSS REFERENCE P&P:

1. Northern Inyo Healthcare District Medical Staff Bylaws

Approval	Date
Inpatient Medicine Committee	03/17/2021
Medical Executive Committee	04/06/2021
Board of Directors	

NORTHERN INYO HEALTHCARE DISTRICT MEDICAL STAFF POLICY AND PROCEDURE

Title: Medical Staff Department Policy – Hospital Medicine	
Scope: Hospitalist Practitioners Manual: Medical Staff	
Source: Chief of Inpatient Medicine	Effective Date:

Last Board of Directors Review

Developed: 02/2021 je Reviewed: Revised: Supersedes: Index Listings:

Title: Stabilization and Resuscitation of the Newborn	
Scope: Hospital Wide	Manual: Perinatal
Source: Perinatal Nurse Manager	Effective Date: 12/22/20

PURPOSE:

1. To ensure that properly trained personnel are on duty to immediately act to resuscitate and stabilize newborns if needed and to ensure clarity of roles during a resuscitation event. A designated NRP certified RN dedicated solely to infant stabilization will attend every delivery.

POLICY:

- 1. All RNs working within the Perinatal Unit who care for newborns will have current documentation of completion of Neonatal Resuscitation Program from the AAP/AHA within 3 months of hire.
- 2. The NRP guidelines will direct all newborn stabilization and resuscitation.
- 3. All events requiring NRP intervention will be reviewed by the unit manager in a timely manner.
- 4. A Code Blue Critique will be completed after every Code Blue by the RN lead and House Supervisor.
- 5. All codes will be peer reviewed as a critical indicator for the Pediatric Providers.
- 6. All codes will be reviewed by the Resuscitation Committee.
- 7. Neonatal Resuscitation Record, scanned into the Newborn's Medical Record if used.
- 8. Equipment and supplies will be checked each shift and prior to each delivery to assure proper working order and availability of resuscitation equipment.

PROCEDURE:

- 1. Neonatal Resuscitation will be performed in the manner specified by the most current AHA/AAP Neonatal Resuscitation Program edition.
- 2. The RN lead will be filled by the Perinatal RN designated to care for the infant.
- 3. The RN lead always have responsibility for assigning APGARS scores.
- 4. The RN lead will notify staff to call the Pediatric Provider if they are needed and are not already present.
- 5. The RN lead will determine the need for and initiate a code blue when Pediatric Provider is not immediately available. Reference the *Code Blue Procedure-Code Blue Team Policy* for clarification of responsibilities and roles of each team member.
- 6. The lead RN will be in charge of performing or delegating all resuscitation efforts until either the Code Blue Team or the Pediatric Provider (Pediatrician or Family Physician with appropriate neonatal privileges) arrives to the bedside.
- 7. Other available medical providers may participate in a NRP event but roles will by assigned by the RN lead.
- 8. All procedures, treatments, and medications will be communicated to the recorder to ensure complete and timely documentation.
- 9. Ensure that noise and unnecessary conversations are kept to a minimum.

Title: Stabilization and Resuscitation of the Newborn	
Scope: Hospital Wide	Manual: Perinatal
Source: Perinatal Nurse Manager	Effective Date: 12/22/20

REFERENCES:

1. Neonatal Resuscitation 7th Edition AHA/AAP

CROSS REFERENCE P&P:

1. Code Blue Procedure-Code Blue Team

Approval	Date
CCOC	1/12/2021
Peri-Peds Committee	12/22/2020
Resuscitation Committee	2/16/2021
Medical Executive Committee	4/6/2021
Board of Directors	
Last Board of Directors Review	

Developed: 12/20 Reviewed: Revised:

Title: Standardized Procedure for Admission of the Well Newborn	
Scope: Perinatal	Manual: Perinatal
Source: Perinatal Nurse Manager	Effective Date: 9/19/19

PURPOSE

To ensure well newborns receive immediate and short-term ongoing assessment, care, and timely administration of prophylactic ophthalmic erythromycin to prevent opthalmia neonatorum, intramuscular Hepatitis B vaccine for perinatal Hepatitis B prevention, and intramuscular Vitamin K to prevent Vitamin K deficient bleeding (VKDB) pending notification of the pediatrician and receipt of physician orders for continuing care.

POLICY

It is the policy of Northern Inyo Healthcare District (NIHD) that all well newborns will be assessed and provided care upon admission under the direction of a Registered Nurse (RN) with annual documented competencies following this Standardized Procedure. All well newborns will receive prophylactic administration of erythromycin ophthalmic ointment, Hepatitis B vaccine, and Vitamin K by an RN/LVN, unless there is a documented refusal by the parent, under this Standardized Procedure.

PROCEDURE

- 1. Experience, Training, and/or Education Requirements of the RN
 - a. Current California RN licensure
 - b. Current Neonatal Resuscitation Program (NRP) card
 - c. Successful completion of orientation to newborn care at NIHD
- 2. Method of Initial and Continued Evaluation of Competence
 - a. Initial evaluation: successful completion and demonstration of competency and clinical decision making in assessment of the newborn, as documented in the unit-specific clinical competency orientation checklist.
 - b. Ongoing evaluation: annual completion of education activity on newborn assessment and administrations of prophylactic medications to a neonate.
- 3. Maintenance of Records of those authorized in Standardized Procedure
 - a. A list of RNs competent to perform this standardized procedure is maintained with the Chief Nursing Officer and is updated annually.
- 4. Settings where Standardized Procedure may be preformed
 - a. Admission of a well newborn and administration of prophylactic medications may take place in the Perinatal unit at the mother's bedside, newborn nursery, or in the Post Anesthesia Care Unit.
- 5. Standardized Procedure
 - a. Circumstance under which Standardized Procedure may be performed:
 - i. Well newborn delivered at NIHD
 - b. Procedure
 - i. The RN will perform an admission assessment according to policy
 - ii. The RN will initiate the Newborn Admission Orders:
 - Code Status:
 - o Full Code
 - When to call Pediatrician:

Title: Standardized Procedure for Admissio	on of the Well Newborn
Scope: Perinatal	Manual: Perinatal
Source: Perinatal Nurse Manager	Effective Date: 9/19/19
Sourcer remain runse manufer	
• Call Peds be	etween 0630-0730 to inform them of any delivery after 5pm the
previous day.	
 If born before 5pm, call Peds ASAP 	
Please call Pediatric	ian immediately <u>, at any hour,</u> in the event of:
• Infant requir	ing resuscitation efforts following birth
	orioamnionitis
• Maternal GBS positive without adequate maternal antibiotic coverage in	
	s or ROM ≥ 18 hours even if otherwise well
•	for infant fever ≥100.4°F
•	for other concerns that cannot wait until normal rounding time
	per Pulse Ox Screening, Hyperbilirubinemia, or Hypoglycemia
policies	
 Vital signs every 30 minutes x4 and PRN 	
• Vital signs every 8 hours for the term, uncomplicated infant born via vaginal b	
• Vital signs every 4 hours x24 hours, then every 8 hours for infants born via c-section	
 Vital signs every 4 hours for infants <37 weeks gestation 	
	ed only unless maternal refusal or medical need per policy
• Breastfeed on demand.	
Oximetry per protocol	
Drugs of abuse scree Urine collect	
 Urine collection for drug screen if mother's drug screen is positive Newborn bearing screening before discharge 	
 Newborn hearing screening before discharge Newborn Screening Test before discharge 	
 Newborn Screening Test before discharge Bili soon at 24 hours on carlier, then doily until discharge 	
 Bili scan at 24 hours or earlier, then daily until discharge Bili Scan DBN for worsening joundies or environments of each and the second s	
 Bili Scan PRN for worsening jaundice or any jaundice prior to 24 hours of age Congenital heart disease screen at 24 hours 	
Sweet Ease for pain	
-	control only unless requested by parent and pacifier use education
provided	control only unless requested by parent and pacifier use education
-	workun specimen
 Collect cord blood workup specimen Erythromycin Ophthalmic Ointment 0.5 % 1 application within 2 hours of deliver 	
 Erythromycin Ophthalmic Ointment 0.5 % 1 application within 2 hours of delivery Phytonadione IM (Vitamin K1) Give 1 mg. Give within 2 hours of delivery 	
-	agar per Newborn Blood Sugar Monitoring Policy
	accine (PF) IM (Engerix-B) 0.5 mL within 24 hours if mother is
*	e. Give as soon as possible within 12 hours of age if mother is Hep
B positive or unknow	
_	tric Provider on call during normal office hours if the mother is
Hep. B posit	-
1 I	Drops 400 unit every day. Start day of discharge

• Cholecalciferol Oral Drops 400 unit every day. Start day of discharge

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Title: Standardized Procedure for Admission of the Well Newborn		
The Standardized Procedure for Admission of the Wen Newborn		
Scope: Perinatal	Manual: Perinatal	
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 \circ 400 IU = 1 DROP Q day to start on the day of discharge.

- 6. Review of Standardized Procedure
 - a. Standardized procedures are reviewed and approved annually by the Interdisciplinary Practice Committee.

REFERENCES:

- 1. American Academy of Pediatrics & College of Obstetricians and Gynecologist (2017). *Guidelines for Perinatal Care (8th ed.)*. Elk Grove Village, IL: Author
- 2. Association of Women's Health, Obstetric and Neonatal Nurses (2009). *Standards & Guidelines for Professional Nursing Practice in the Care of Women and Newborns (7th ed.)*. Washington DC: Author

CROSS REFERENCE P&P:

- 1. Admission, Care, Discharge and Transfer of the Newborn
- 2. Breastfeeding the Term Infant
- 3. Drugs of Abuse Maternal and Infant
- 4. BiliChek Transcutaneous Bilirubin Testing
- 5. Newborn Pulse Oximetry Screen
- 6. Newborn Hearing Screening Program
- 7. Newborn Blood Glucose Monitoring

Approval	Date
CCOC	1/12/2021
Interdisciplinary Practice Committee	03/18/2021
P&T	02/18/2021
PeriPeds Committee	12/22/2020
Medical Executive Committee	04/06/2021
Board of Directors	
Last Board of Directors Review	

Developed: 12/21/2018 Reviewed: 12/22/20jmt Revised:

POLICY AND PROCEDURE

Title: Standardized Procedure for Reporting of COVID-19 Laboratory Results	
Scope: District Wide	Manual: Infection Prevention
Source: Director of Quality and Infection Prevention	Effective Date:

PURPOSE

To ensure COVID-19 results are communicated to both patients and County Public Health Departments in a timely manner.

POLICY

It is the policy of Northern Inyo Healthcare District (NIHD) that all send out COVID-19 test results at Northern Inyo Healthcare District (NIHD) will be communicated to an Infection Prevention Nurse. The Infection Prevention Nurse will notify the patient and applicable County Public Health Departments of the positive test results. Negative test results will be communicated to Emergency Department patients only under this standardized procedure.

PROCEDURE

- 1. Experience, Training, and/or Education Requirements of the RN
 - a. Current California RN licensure
- 2. Method of Initial and Continued Evaluation of Competence
 - a. Initial evaluation: successful completion and demonstration of competency and clinical decision making as demonstrated through policy review and completion of Infection Prevention COVID-19 Result Reporting Test with score of 100%.
 - b. Ongoing evaluation: annual policy review and completion of Infection Prevention COVID-19 Result Reporting Test with score of 100%.
- 3. Maintenance of Records of those authorized in Standardized Procedure
 - a. A list of RNs competent to perform this standardized procedure is maintained with the Chief Nursing Officer and is updated annually.
- 4. Settings where Standardized Procedure may be preformed
 - a. The Standardized Procedure for COVID-19 result reporting may take place in the Infection Prevention Department, for any COVID-19 positive patient result obtained within the District and negative results obtained in the Emergency Department.
- 5. Standardized Procedure
 - a. Circumstance under which Standardized Procedure may be performed:
 - i. Any positive COVID-19 Laboratory result obtained at NIHD or negative result obtained in the Emergency Department.
 - b. Procedure
 - i. The Laboratory Department will notify the Infection Prevention Nurse of all COVID-19 test results.
 - ii. Infection Prevention RN will notify the patient of the positive or negative, if obtained in Emergency Department, COVID-19 result.

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Source: Director of Quality and Infection Prevention	Effective Date:	

- 1. Between the hours of 0900 and 1800 the Infection prevention RN will immediately notify the patient of the COVID-19 result.
- 2. Results reported after 1800 will be communicated to the patient the next day.
 - a. Documentation of patient communication in the Electronic Health Record (EHR) will include:
 - i. Positive Result:
 - 1. Communication of COVID-19 result
 - 2. Review of and reference to CDC recommendations for isolation and prevention of transmission
 - 3. Instruction to contact their primary care provider
 - Instruction that Inyo County Public Health Department will be contacting them for contact tracing and return to work instructions
 - 5. Instruction to notify their employer
 - Review that for any additional questions or concerns to please contact their primary care provider and if you have an emergency medical condition please call 911 or present to the Emergency Department.
 - ii. Negative Results:
 - 1. Communication of COVID-19 result
 - 2. Review of and reference to CDC recommendations for quarantine and prevention of transmission
 - 3. Instruction to contact their primary care provider if symptoms do not improve
 - 4. Review that for any additional questions or concerns to please contact their primary care provider and if you have an emergency medical condition please call 911 or present to the Emergency Department.

POLICY AND PROCEDURE

Title: Standardized Procedure for Reporting of COVID-19 Laboratory Results		
Scope: District Wide	Manual: Infection Prevention	
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- iii. Infection Prevention will notify applicable County Public Health Departments of positive COVID-19 results.
 - 1. Documentation of County Public Health Department communication:
 - a. Inyo County communication of results via secure email/fax
 - b. All other county communication is completed via Confidential Morbidity Report (CMR)
- iv. Infection Prevention RN will document Positive COVID-19 status in alert field in EHR
- 6. Other specialized circumstances requiring RN to contact physician
 - a. None
- 7. Review of Standardized Procedure
 - a. Standardized procedures are reviewed and approved annually by the Interdisciplinary Practice Committee.

REFERENCES:

- Centers for Disease Control and Prevention. (2021, February 13). Interim Guidance on Duration of Isolation and Precautions for Adults with COVID-19. <u>https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html</u>
- 2. Centers for Disease Control and Prevention. (2021, February 3). Information for Health Departments on Reporting Cases of COVID-19. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/php/reporting-pui.html
- 3. Westlaw California Code of Regulations. (2021). Barclays Official California Code of Regulations 17 CA ADC § 35055. Retrieved from <u>https://govt.westlaw.com/calregs/Document/I2599B8C0D60711DE88AEDDE29ED1DC</u> <u>0A?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPa</u> <u>geItem&contextData=(sc.Default)</u>

CROSS REFERENCE P&P:

- 1. Aerosolized Transmissible Disease Exposure Plan/Respiratory Protection Program*
- 2. Lippincott Procedures (Revised: May 15, 2020). Reportable Disease. Retrieved from <u>https://procedures.lww.com/lnp/view.do?pId=3260871&hits=reportable,reporting,reported</u> <u>,report,reports&a=false&ad=false</u>

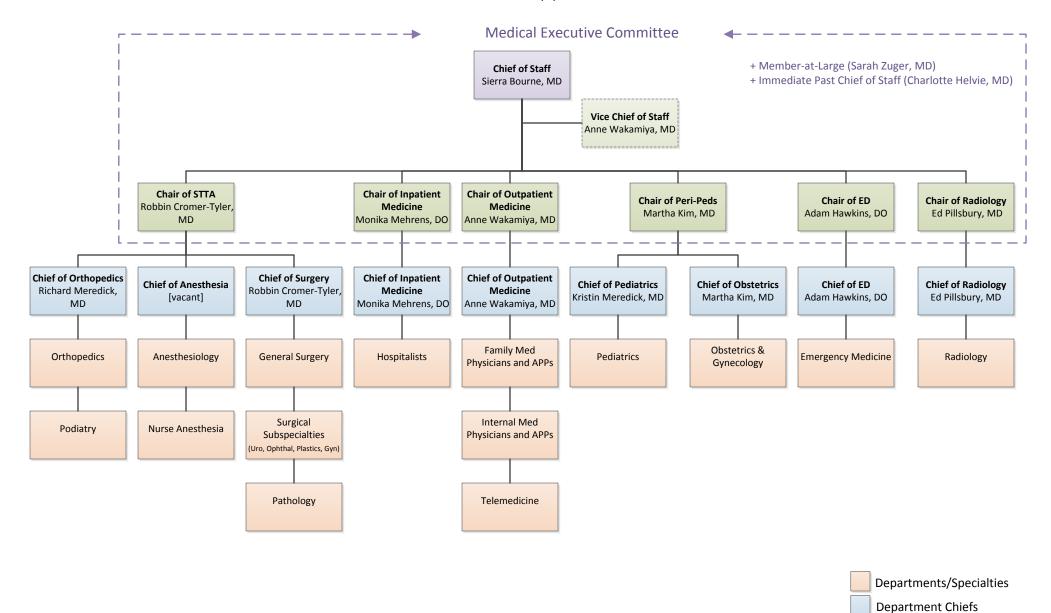
POLICY AND PROCEDURE

Title: Standardized Procedure for Reporting of COVID-19 Laboratory Results		
Scope: District Wide	Manual: Infection Prevention	
Source: Director of Quality and Infection Prevention	Effective Date:	

Approval	Date
Interdisciplinary Practice Committee	3/23/21
Infection Prevention Committee	3/24/21
Medical Executive Committee	4/6/21
Board of Directors	
Last Board of Directors Review	

Developed: 03/09/2021 Reviewed: Revised: Supersedes: Index Listings:

New Medical Staff Governance Structure Bylaws Effective 3/19/2021 Rev. 4/6/2021



Note: A Chair and Chief may be the same individual. Chairs and Chiefs are elected positions. Page 51 of 152

Committee Chairs

CALL TO ORDER	The meeting was called to order at 6:03 pm by Robert Sharp, District Board Chair.
PRESENT	Robert Sharp, Chair Jody Veenker, Vice Chair Mary Mae Kilpatrick, Secretary Topah Spoonhunter, Treasurer Jean Turner, Member-At-Large Kelli Davis MBA, Interim Chief Executive Officer and Chief Operating Officer Allison Partridge RN, MSN, Chief Nursing Officer
OPPORTUNITY FOR PUBLIC COMMENT	Mr. Sharp reported at this time, members of the audience may speak only on items listed on the Notice for this meeting, and speakers will be limited to a maximum of three minutes each. The Board is prohibited from generally discussing or taking action on items not included on the Notice for this meeting. No comments were heard.
CLOSED SESSION	 At 6:04 pm Mr. Sharp announced the meeting would adjourn to Closed Session to allow the District Board of Directors to: Conference with Labor Negotiators, Agency Designated Representative: Irma Moisa; Employee Organization: AFSCME Council 57 (<i>pursuant to Government Code Section 54957.6</i>). Mr. Sharp noted that the Board did not anticipate that any reportable action would be announced following the conclusion of Closed Session.
RETURN TO OPEN SESSION AND REPORT OF ACTION TAKEN	At 7:10 pm the meeting returned to Open Session. Mr. Sharp reported that the Board took no reportable action.
ADJOURNMENT	The meeting was adjourned at 7:11 pm.

Robert Sharp, Chair

Attest:

Mary Mae Kilpatrick, Secretary

CALL TO ORDER	The meeting was called to order at 2:02 pm by Robert Sharp, District Board Chair.
PRESENT	Robert Sharp, Chair Jody Veenker, Vice Chair Mary Mae Kilpatrick, Secretary Topah Spoonhunter, Treasurer Jean Turner, Member-At-Large Kelli Davis MBA, Interim Chief Executive Officer and Chief Operating Officer
OPPORTUNITY FOR PUBLIC COMMENT	Mr. Sharp reported at this time, members of the audience may speak only on items listed on the Notice for this meeting, and speakers will be limited to a maximum of three minutes each. The Board is prohibited from generally discussing or taking action on items not included on the Notice for this meeting. No comments were heard.
CLOSED SESSION	 At 2:03 pm Mr. Sharp announced the meeting would adjourn to Closed Session to allow the District Board of Directors to: A. Conduct a Public Employee Performance Evaluation (<i>pursuant to Government Code Section 54957(b)</i>). Title: Interim Chief Executive Officer.
	Mr. Sharp noted that the Board did not anticipate that any reportable action would be announced following the conclusion of Closed Session.
RETURN TO OPEN SESSION AND REPORT OF ACTION TAKEN	At 3:42 pm the meeting returned to Open Session. Mr. Sharp reported that the Board took no reportable action.
ADJOURNMENT	The meeting was adjourned at 3:43 pm.

Robert Sharp, Chair

Attest:

Mary Mae Kilpatrick, Secretary

CALL TO ORDER	The meeting was called to order at 5:30 pm by Robert Sharp, District Board Chair.
PRESENT	 Robert Sharp, Chair Jody Veenker, Vice Chair Mary Mae Kilpatrick, Secretary Topah Spoonhunter, Treasurer Jean Turner, Member-at-Large Kelli Davis MBA, Interim Chief Executive Officer and Chief Operating Officer William Timbers MD, Interim Chief Medical Officer Allison Partridge RN, MSN, Chief Nursing Officer Charlotte Helvie MD, Chief of Staff Keith Collins, General Legal Counsel (Jones & Mayer)
OPPORTUNITY FOR PUBLIC COMMENT	Mr. Sharp announced that the purpose of public comment is to allow members of the public to address the Board of Directors. Public comments shall be received at the beginning of the meeting and are limited to three (3) minutes per speaker, with a total time limit of thirty (30) minutes being allowed for all public comment unless otherwise modified by the Chair. Speaking time may not be granted and/or loaned to another individual for purposes of extending available speaking time unless arrangements have been made in advance for a large group of speakers to have a spokesperson speak on their behalf. Comments must be kept brief and non-repetitive. The general Public Comment portion of the meeting allows the public to address any item within the jurisdiction of the Board of Directors on matters not appearing on the agenda. Public comments on agenda items should be made at the time each item is considered. Comments were heard from Kelli Davis, who acknowledged Charlotte Helvie MD's years of service to this community as well as her many contributions toward improving healthcare services in this area.
NEW BUSINESS	many contributions toward improving nearlifeare services in this area.
COVID 19 UPDATE	 Northern Inyo Healthcare District (NIHD) Interim Chief Executive Officer and Chief Operating Officer Kelli Davis, MBA provided a Covid 19 update which included the following: Covid 19 Incident Command meetings continue. Key healthcare partners and community stakeholders participate in meetings with NIHD on a weekly basis. Covid hospitalizations remain stable. NIHD staff and providers have fine-tuned Covid-specific patient care procedures, and they should be commended for their continued commitment and on the high level of quality care they are providing. NIHD continues to partner with the County of Inyo on community vaccination efforts. The vaccination program for area residents has been extremely well organized and highly successful thus far.

Northern Inyo Healthcare Dis	trict Board of Directors	March 17, 2021
		Page 2 of 5
	- Then District anticipates new CDPH and/or loosening of protocols as our improve.	
MOMENT OF APPRECIATION FOR DISTRICT STAFF AND PROVIDERS	The District Board took a moment to apprece providers for the exemplary job they continu- pandemic. Mr. Sharp specifically comment received for Oscar Lopez and the NIHD Car additionally acknowledged the service of Ch move out of the area soon leaving patient car than it was when she arrived. The Board ad Timbers MD for stepping up to serve as Inter the District during extremely difficult times pandemic.	ue to do during the Covid 19 ed on a letter of appreciation re Shuttle staff, and harlotte Helvie MD who will ure in the community better ditionally thanked William erim Chief Medical Officer for
DISTRICT BOARD RESOLUTION 21-02	Mr. Sharp called attention to proposed Distr which authorizes the District's purchase of t Associates (PMA) partnership interest owne and Asao Kamei MD, for a price of \$1,017, Mae Kilpatrick, seconded by Jody Veenker, approve District Board Resolution 21-02 as acknowledging the District's purchase of the previously owned by Nickoline Hathaway M	the Pioneer Medical ed by Nickoline Hathaway MD 488. It was moved by Mary and unanimously passed to presented, formally e PMA partnership interest
POLICY AND PROCEDURE APPROVAL, STABILATION OF THE NEWBORN	Mr. Sharp also called attention to a proposed Procedure titled <i>Stabilization and Resuscita</i> , that the Policy will first go to the Medical E approval prior to being approved by the Dis be placed on a future Board agenda once it h NIHD Medical Executive Committee.	<i>tion of the Newborn</i> , noting xecutive Committee for trict Board. The Policy will
CHIEF EXECUTIVE OFFICER SEARCH FIRM SELECTION	Director Jean Turner called attention to four prospective Chief Executive Officer Search Board of Directors Ad Hoc Committee meet were reviewed and considered. She stated to of the NIHD Board Ad Hoc Committee to se the firm used to conduct the search for the D Officer. Following review of the materials p Veenker, seconded by Ms. Kilpatrick, and u entering into an agreement with AMN Healt for NIHD's next Chief Executive Officer.	firms, and to the minutes of a ting where those proposals hat it is the recommendation elect AMN Healthcare to be District's next Chief Executive provided it was moved by Ms. manimously passed to approve
APPOINTMENT OF BOARD MEMBERS TO NIHD/SMHD JOINT RELATIONS COMMITTEE	Mr. Sharp reported he recently met with two District (SMHD) Board members to discuss a Joint Relations/Problem Resolution and R Committee for the purpose of improving con collaboration between the two Healthcare D discussion it was moved by Ms. Kilpatrick,	the possibility of establishing egional Cooperation Ad Hoc mmunication and vistricts. Following brief

Northern Inyo Healthcare Di	strict Board of Directors	March 17, 2021
Regular Meeting		Page 3 of 5
CHIEF OF STAFF REPORT	unanimously passed to appoint Directors Shar Joint Relations Committee with SMHD (Mam Nursing Officer Allison Partridge also indicate to participate in those collaborative meetings.	moth Hospital). Chief
POLICY AND PROCEDURE APPROVALS ANNUAL APPROVALS	Chief of Staff Charlotte Helvie MD reported f consideration, and approval by the appropriate Executive Committee recommends approval of approvals: 1. Anesthesia Critical Indicators 2. Surgery Critical Indicators 3. Perinatal Critical Indicators 4. Neonatal Critical Indicators 5. Pediatrics Critical Indicators It was moved by Ms. Veenker, seconded by M passed to approve all 5 annual approvals as pr	e Committees, the Medical of the following annual Is. Turner, and unanimously
MEDICAL STAFF AND APP[STAFF APPOINTMENTS	 Doctor Helvie additionally reported following consideration, and approval by the appropriate Executive Committee recommends approval of Staff and Advanced Practice Provider (APP) at 1. Jeffrey La Rochelle, MD (<i>urology</i>) – F 2. Ali Kasraeian, MD (<i>urology</i>) – Provisi 3. Arin Stephens, PA-C (<i>urology</i>) – Adva Staff 4. Vanessa Blasic, PA-C (<i>urology</i>) – Adva Staff 5. Joceyln Moll, FNP-C (<i>urology</i>) – Adva Staff It was moved by Ms. Kilpatrick, seconded by unanimously passed to approve all 5 NIHD M appointments as requested. 	e Committees the Medical of the following Medical appointments: Provisional Consulting Staff ional Consulting Staff anced Practice Provider vanced Practice Provider anced Practice Provider Topah Spoonhunter, and
MEDICAL STAFF REAPPOINTMENT	Doctor Helvie also reported that the NIHD Me recommends the following Medical Staff re-ap years 2021 and 2022: 1. Arrash Fard, MD (<i>cardiology</i>) – Adver Category: Telemedicine It was moved by Ms. Kilpatrick, seconded by unanimously passed to approve the Medical S Arrash Fard MD for calendar years 2021 and 2	ppointment for Calendar ntist Health Telemedicine. Ms. Veenker, and taff re-appointment of
REQUEST FOR ADDITIONAL PRIVILEGES	Doctor Helvie additionally reported that the M Committee recommends the granting of additi following NIHD Medical Staff members: 1. Anne Wakamiya, MD (<i>internal medica</i>)	ional privileges for the

Northern Inyo Healthcare Dis	trict Board of Directors	March 17, 2021
Regular Meeting		Page 4 of 5
	 in Stress Test interpretation 2. Daniel Firer, MD (<i>family medicine/emet</i> for privileges in Bedside Ultrasound fol required coursework It was moved by Ms. Veenker, seconded by Ms passed to approve both requests for additional private of the second second	lowing completion of s. Turner, and unanimously
MEDICAL STAFF RESIGNATIONS	 Doctor Helvie also reported the Medical Executive recommends approval of the following Medical 1. Michael Rhodes, MD (<i>internal medicinal</i> 2. Sheila Cai, MD (<i>psychiatry</i>, <i>Adventist F</i> 3. Armand Rostamian, MD (<i>cardiology</i>, <i>A</i> effective 11/9/20 It was moved by Ms. Turner, seconded by Ms. passed to approve all 3 Medical Staff resignation 	l Staff resignations: e) – effective 11/24/20 Health) – effective 1/15/21 dventist Health) – Veenker, and unanimously
MEDICAL EXECUTIVE COMMITTEE MEETING REPORT	Doctor Helvie additionally reported that Medic continue to meet on a regular basis to help ensu- care, including the Medical Staff Bylaws Comr Medicine Committee; the Antibiotic Stewardsh Pharmacy and Therapeutics Committee, and the Committee. She also reported that the Medical Stacey Brown MD; Monika Mehrens DO; and honored as the Covid 19 heroes for the month of	re the quality of patient nittee; the Inpatient ip Committee; the e Medical Executive Staff recently selected Casey Solomon RT to be
CONSENT AGENDA	 Mr. Sharp called attention to the Consent Agen contained the following items: Approval of minutes of the February 17 Approval of minutes of the February 20 Approval of minutes of the February 27 Interim Chief Executive Officer and Chareport Interim Chief Medical Officer report Chief Nursing Officer report Financial and Statistical reports as of J Compliance Department quarterly repo Policy and Procedure annual approvals Cerner Implementation update It was moved by Ms. Veenker, seconded by Ms a 4 to 0 vote to approve the minutes for the February from she was absent from that meeting. It was then a seconded by Mr. Spoonhunter, and unanimousl remaining Consent Agenda items as presented. 	2 2021 regular meeting 2 2021 special meeting 2 2021 special meeting ief Operating Officer 2 anuary 31, 2021 ort 5 S. Kilpatrick, and passed by 5 oruary 17 2021 regular the vote due to the fact that moved by Ms. Turner,
BOARD MEMBER COMMITTEE UPDATES	Mr. Sharp asked if any members of the Board or report on their attendance at any District meeting	

Northern Inyo Healthcare Dis	strict Board of Directors	March 17, 2021
Regular Meeting		Page 5 of 5
	reported that she participated in Association of Califo Districts (ACHD) meetings in the month of January, a annual meeting will be scheduled in September 2021. reported that she recently attended the NIHD Medical meeting, as well as the Chief Executive Officer Leade meeting. No other reports were heard.	and that the ACHD Director Kilpatrick Surgical Committee
BOARD MEMBER REPORTS	Mr. Sharp asked if any members of the Board of Dire comment on any additional items of interest. No com	
ADJOURNMENT TO CLOSED SESSION	 At 6:17 pm Mr. Sharp announced the meeting would Session to allow the District Board of Directors to: A. Conference with Labor Negotiators, Agency I Representative: Irma Moisa; Employee Organ Council 57 (<i>pursuant to Government Code Set</i> B. Conference with legal counsel, existing litigat <i>Gov. Code Section 54956.9(d)(1)</i>. Name of ca v. Northern Inyo Healthcare District. C. Discuss significant exposure to litigation (<i>pur. Code Section 54956.9</i>), one case. Mr. Sharp noted that no action was expected to be rep the conclusion of Closed Session. 	Designated hization: AFSCME <i>ction 54957.6</i>). ion (<i>pursuant to</i> hise: Robin Cassidy <i>suant to Government</i>
RETURN TO OPEN SESSION AND REPORT OF ACTION TAKEN	At 6:54 pm the meeting returned to Open Session. M that the Board took no reportable action.	r. Sharp reported
ADJOURNMENT	The meeting adjourned at 6:54 pm.	

Robert Sharp, Chair

Attest:

Mary Mae Kilpatrick, Secretary

BOD Bi-Annual Policy Review

Laboratory 4/21/2021

Policy Title

Accutest Rapid Mono Test Drugs of Abuse test McKesson 12-Drug Panel with Adulterants **Elevated troponin Reporting** Fern Testing Hemoccult Sensa Fecal Occult Blood **Obtaining Blood Bank Samples from Patients in Surgery Emergency Order and Shipment of Blood Components from UBS** Blood Bank-Emergency Requests for Blood Components Hemosure – One-Step Immunological Fecal Occult Blood Test Pathology Specimens in the Operating Room Point of Care – Accu-Chek Blood Glucose Testing Point of Care – HemoCue Hb 201+ Hemoglobin Testing Point of Care – QuickVue Dipstick Strep A Test Point of Care – QuickVue hCG Urine Test Point of Care – QuickVue Influenza A + B Test Provider-Performed Microscopy Competency Training and Competency in Fern Testing Urine Dipstick Chemistries – Chemstrip 10UA

Title: Accutest Rapid Mono Test		
Scope: Outpatient Clinics	Manual: Lab- Point of Care	4
Source: Lab Coordinator	Effective Date: 03/01/2018	×

I. INTENDED USE

The Accutest Rapid Mono Test is a rapid test for the visual, qualitative detection of heterophile antibodies specific to Infectious Mononucleosis (IM) in human whole blood. The test is categorized as a waived test if capillary finger stick whole blood is used as specimen. The test kit is intended as an aid in the diagnosis of IM in patients with characteristic clinical symptoms, and is intended for professional laboratory use only.

II. PRINCIPLE

The Accutest Rapid Mono Test has been designed to detect IM through visual interpretation of color development in the test device, which is a sandwich solid phase gold conjugate immunoassay. The test device contains a membrane strip, which is pre-coated with heterophile antigens on the test band region and goat anti-mouse antibody on the control band region. The anti-human IgM antibody-colloidal gold conjugate pad is placed at the end of the membrane. A mixture of colloidal gold conjugate together with the sample and developer buffer will move along the membrane chromatographically by capillary action. When the IM heterophile antibodies are present in the patient sample, the mixture will migrate to the test band region and form a visible line as the antibody complexes with the heterophile antigen. When IM heterophile antibodies are absent from the sample, no visible color band will form on the test line region. Therefore, the presence of a colored band on the test line region indicates a positive result. A colored band will always appear at the control region. This control band serves as a procedural indicator for the proper performance of the test and the device.

III. MATERIALS, EQUIPMENT, AND REAGENTS

A. Reagents and materials provided

- Individually wrapped test devices with transfer pipettes
- Developer buffer
- Mono Negative control
- Mono Positive control
- B. Materials required but not provided
- Gloves
- Skin cleansing product e.g. alcohol swab
- Single use sterile lancet
- Sterile gauze or cotton
- Timer

IV. STORAGE AND STABILITY

The test kit should be stored at room temperature (15-30°C) in the sealed pouch for the duration of the shelf-life.

Note: Do not mix reagents from different lots

V. SPECIMEN COLLECTION

- A. Acceptable specimens
 - 1. Fresh capillary whole blood sample (finger stick)

1

Title: Accutest Rapid Mono Test	
Scope: Outpatient Clinics	Manual: Lab- Point of Care
Source: Lab Coordinator	Effective Date: 03/01/2018

B. Collection

1. Finger stick procedure

Select the finger site for puncture (use middle or ring finger not recently punctured)

- a. Enhance blood flow to the selected puncture site
 - Warming the site
 - Instructing the patient to flex and move the arm, wrist, hand and fingers while you are assembling your supplies and preparing the system for testing
 - Positioning the intended puncture site below heart level
 - Gently massaging in an outward (distal) direction from the palm and the base of the finger to the fingertip
- b. Clean the puncture site by means of appropriate cleansing product e.g. alcohol swab
- c. Allow the site to air dry completely before puncturing
- d. Advise the patient of imminent puncture
- e. Squeeze the end of the fingertip and pierce with a sterile lancet
- f. Wipe away the first drop of blood with sterile gauze or cotton
- g. Hold the sample transfer pipette horizontally and touch the tip of the pipette to the second drop of sample.
- h. Collect blood up to the red fill line (25 uL).

Note: The sample transfer pipette has an air vent positioned on the side wall of the pipette to provide automatic air venting and sample volume control. Do NOT squeeze the sample transfer pipette while filling. Avoid air bubbles.

VI. PROCEDURE

- A. Test procedure
 - 1. Gloves should be worn when handling patient specimens
 - 2. Remove the test device from its protective pouch. Label the device with patient or control identification
 - Note: Do NOT open pouches until ready to perform the assay
 - 3. Add specimen to sample well
 - Align the tip of the pipette over the upper area of the sample well (S) of the test device
 - Slowly squeeze the bulb until a hanging drop forms and touch this drop to the sample pad
 - 4. Immediately add 3-4 drops of developer buffer into the lower end of the sample well (S).
 - 5. Read results at 8 minutes. Note: Do NOT read the result after 15 minutes
- B. Internal QC procedure
 - 1. Internal procedural control

A procedural control is included in the test. A colored band appearing in the control region (C) is considered an internal procedural control, indicating proper performance and reactive reagents.

2. Internal negative control

A clear background in the result window is considered an internal negative control. The test is invalid if the background fails to clear and obscures the reading of the test result.

Title: Accutest Rapid Mono Test		
Scope: Outpatient Clinics	Manual: Lab- Point of Care	
Source: Lab Coordinator	Effective Date: 03/01/2018	

C. External QC procedure

External QC should be run once for each untrained operator and once for each new shipment/new lot of kits and every 30 days thereafter.

1. Positive control

- Follow the steps in A.1-A.2
- Fill transfer pipette to the black fill line (10 uL)
- Add the positive control into the sample well using the provided transfer pipette by holding the pipette in a vertical position
- Immediately add 3-4 drops of developer buffer
- A positive signal is indicated by the development of two pink-red bands in the test region (T) and the control region (C)

2. Negative Control

- Follow the steps in A.1-A.2
- Add the negative control into the sample well using the provided transfer pipette by holding the pipette in a vertical position
- Immediately add 3-4 drops of developer buffer
- A negative signal is indicated by the development of only one pink-red band in the control region (C)

VII. RESULT INTERPRETATION

A. Positive result: Two pink-red colored bands appear, one in the control region (C) and one in the test region (T).

Note: When testing with strong positive samples, the intensity of the control band may be lighter than expected. Comparison of the line intensity is not recommended

- B. Negative result: Only one pink-red colored band appears in the control line region (C). No apparent faint pink or red colored band on the test line region (T).
- C. **Invalid result**: A total absence of pink colored bands in both regions is an indication of procedural error or that possible test reagent deterioration has occurred.

VIII. LIMITATIONS OF THE PROCEDURE

- A. This test kit is to be used for the qualitative detection of IgM antibodies to IM heterophile antigen. A positive result suggests the presence of IgM to heterophile antigen.
- B. It should only be used for symptomatic individuals suspected of having IM. Diagnosis of IM should be made by confirmation with other clinical findings.
- C. A negative result does not rule out the possibility of IM because the antibodies to heterophile antigen may be absent or may not be present in sufficient quantity to be detected. Approximately 50% of children under the age of 4 who have IM may test as IM heterophile antibody negative.
- D. False positive results can occur in 2-3% of patients due to persistent levels of heterophile antibodies long after primary illness.

Title: Accutest Rapid Mono Test	OLICI AND INCOLUCINE	
Scope: Outpatient Clinics	Manual: Lab- Point of Care	
Source: Lab Coordinator	Effective Date: 03/01/2018	

E. IM heterophile antibodies have been associated with disease states other than IM, such as leukemia and rheumatoid arthritis.

IX. REFERENCES

1. AccuTest Rapid Mono Test package insert P-5211-A

Approval	Date
Medical Director of the Laboratory	12/18/2017
CCOC	2/26/2018
Medical Services Committee	1/25/2018
Medical Executive Committee	2/6/2018
Board of Directors	2/21/2018
Last Board of Directors Review	

Developed: 12/17 Reviewed: 6/20 Revised: Supersedes:

Mono

Procedure Card Refer to Product Instructions for details.

DIRECTIONS FOR USE OF SAMPLE TRANSFER PIPET

The sample transfer pipette has an air vent positioned on the sidewall of the piper to provide automatic air venting and sample volume control.

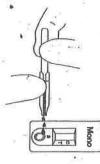
Air vent regulates volume

봅

Fill line indicates total sample collected

CAUTION: Filling is automatic: Do not squeeze the sample transfer pipette while filling. At

STEP 1 Hold the sample transfer pipette horizontally and touch the tip of the pipette to the sample. The specimen can be obtained from vacutainer, test tube or fingerstick. Capillary action will automatically draw up the correct volume to the fill line and stop.



STEP 2 To expel sample, a pipette over the u Sample Well (S) of squeeze the bulb.

NOTE: If a sample c pipette vertically ar the vent hole. Then over the upper area of the test device a

Mono

Procedure Card Refer to Product Instructions for details.

MONO TEST PROCEDURE

STEP 1

Remove a test device from its pouch and place on a flat surface.

STEP 2

Collect the sample using the appropriate sample transfer pipette according to the volume of sample required.

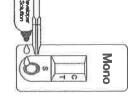
Use the <u>25µL</u> sample transfer pipette for whole blood or the <u>10µL</u> sample transfer pipette for serum/plasma samples. Follow the directions for sampling using the sample transfer pipette.

STEP 3

Add 2-3 drops of Developer Solution into the lower area of the Sample Well (S).

STEP 4

Read the results at 8 minutes. Do not read test after 15 minutes.



INTERPRETATION OF RESULTS

POSITIVE

NEGATIVE

INVALID

One pink-purple colored horizontal band each at the Test position (T) and at the Control position (C) indicates that IM-specific heterophile antibodies have been detected.

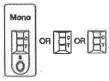
antibodies have not been detected.

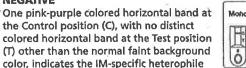
the Control position (C).

A distinct colored horizontal band at the

Control position (C) should always appear.

The test is invalid if no such band forms at









Title: Drugs of Abuse Test Mckesson 12-Dr	ug Panel With Adulterants.
Scope: CLIA Waived testing staff.	Manual: Lab- Point of Care, RHC - Direct Care Policy
	and Procedure
Source: POCT Coordinator CLS	Effective Date:08-22-2019

PURPOSE:

The Mckesson 12-Drug Panel With Adulterants Drugs of Abuse Test is a CLIA Waived Urine Toxicology rapid screening test for simultaneous and qualitative detection of Methamphetamine (MET), Amphetamine (AMP), Cocaine (COC), Morphine (MOP), Marijuana (THC), Benzodiazepines (BZO),

Ecstasy/Methylenedioxymethamphetamine (MDMA), Oxycodone (OXY), Barbituates (BAR), Phencyclidine (PCP), Buprenorphine (BUP), Methadone (MTD), and their associated metabolites, in human urine.

POLICY:

- 1. Refer to "Training and Competency in Point of Care Testing" for NIH Point of Care Policy
- 2. All new lots or shipments of The Mckesson 12-Drug Panel with Adulterants Drugs of Abuse Test shall be tested with external controls, and monthly thereafter.
- 3. The Mckesson 12-Drug Panel with Adulterants Drugs of Abuse Test will not be used for Employment or legal drug screening.
- 4. The Mckesson 12-Drug Panel with Adulterants Drugs of Abuse Test will not be used in any way that violates local, state, or federal toxicology regulations.
- 5. All testing staff should be able to interpret results by comparing the color of a test strip to a key on the included Color Chart. Staff with color blindness should not perform this test.

INTENDED USE:

The Mckesson 12-Drug Panel With Adulterants Drugs of Abuse Test is intended for use within the Northern Inyo Hospital Medication-Assisted Treatment (MAT) Program to aid providers with determining compliance with Medication use instruction and as a preliminary indicator of possible patient substance abuse. It is only intended for preliminary analytical results and is not appropriate for Employment or Pre-employment Drug Screening. Please see the Limitations section for more details.

PRINCIPLE:

The One Step Multi-Drug Screen Test is an immunoassay based on the principle of competitive binding. Drugs which may be present in the urine specimen compete against their respective drug conjugate for binding sites on their specific antibody. During testing, a urine specimen migrates upward by capillary action. A drug, if present in the urine specimen below its cut-off concentration, will not saturate the binding sites of its specific antibody coated on the particles. The Antibody coated particles will then be captured by the immobilized drug conjugate and a visible colored line will show up in the test line region of the specific drug strip.

The colored line will not form in the test line region if the drug level is above its cut-off concentration because it will saturate all the binding sites of the antibody coated on the particles.

A drug-positive urine specimen will not generate a colored line in the specific test line region of the strip because of drug competition, while a drug-negative urine specimen or a specimen containing a drug concentration less than the cut-off will generate a line in the test region. To serve as a procedural control, a colored line will always appear at the control line region indicating that proper volume of specimen has been added and membrane wicking has occurred.

Each test line in the test panel contains mouse monoclonal antibody-coupled particles and corresponding drug-protein conjugates. A goat antibody is employed in each control line.

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MATERIALS, EQUIPMENT, REAGENTS AND STORAGE:

Drugs of Abuse Test Mckesson 12-Drug Panel With Adulterants (store between 2-30 degrees C):

Test Cup

•

Desiccants

- Package insert
- Security seals

• Color Chart card for Adulterant Interpretation

Procedure Card

Disposable glovesPackage insert

Alere Professional Cup Urine Drug Controls: Negative, Positive (store between -10 to -20 degrees C or unopened between 2 and 8 degrees C, or opened and refrigerated between 2-8 degrees C for 31 days):

- Positive Control
- Procedure stand

- Negative Control
- Package insert

Pipette

Not included in kits but required for test:

- Timer
 - Aliquot tubes (for freezing urine controls)

PROCEDURE:

- 1. Standard precautions should be followed when collecting all patient samples. Gloves should be given to patients when collecting urine specimens.
- 2. External Controls:
 - A. External controls should be performed monthly or with each new shipment/lot.
 - B. Controls are best stored frozen between -10 and -20 degrees Celsius. They may be stored, unopened, between 2 and 8 degrees Celsius until the expiration date, but the Oxazepam used in the controls may deteriorate with time.
 - C. Opened controls may be aliquoted into 1 mL amounts and frozen between -10 and -20 C fintil the for expiration date. Opened controls may be stored between 2 and 8 degrees Celsius for 31 days.
 - D. Allow controls to come to room temperature, followed by gentle swirling, before use.
 - E. Each control (positive and negative) should be added to a separate testing cup.
 - F. If using a short control sample (minimum of 1 mL), pour or pipette control sample into cup, making certain that the bottoms of all imbedded test strips are saturated with control material. Then, screw the lid back onto the testing cup.
 - G. Place the cup onto the low volume stand with the test strip portions facing down and the bottom of the cup angled lower than the top.
 - H. Testing staff should peel off label to reveal the test result. Read test result at 5 minutes. DO NOT INTERPRET RESULT AFTER 10 MINUTES.
 - I. Negative control should yield a result that is negative for all tested substances
 - J. Positive control should yield a result that is positive for all tested substances
 - K. If control results do not match expected outcomes, repeat the test with a new set of controls. If failure continues, contact NIHD lab POCT team for further instruction.
 - L. No lot or shipment of the Drugs of Abuse Test Cups should be used for patient testing until external controls have passed.
- 3. Specimen Collection and Preparation:
 - A. After taking a Drug of Abuse, it takes a minimum of 2-7 hours for drugs and drug metabolites to appear in urine. It is advisable, therefore, to wait a minimum of 2-7 hours after suspected drug use to collect a urine specimen.

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- B. Verify all patient medication use, including OTC drugs and supplements. This can be useful in ruling out false positives.
- C. Ensure patient is able to provide a sufficient quantity of urine. 30 mL is the minimum quantity necessary for patient testing. If the minimum quantity is not provided, the specimen should be discarded and recollected later.
- D. Patient should urinate directly into the urine test cup if the results are to be read immediately, or the specimen may be collected in a sterile urine collection cup if the test will be read later. However, testing the specimen at a later time will invalidate the utility of the Temperature Indicator Strip, which is useful for determining if a patient came to the clinic with another person's urine.
- E. If the provider would like to consider confirmatory testing, a second collection specimen for confirmatory testing should be provided. Please refer to specific Reference Lab requirements for confirmatory testing (eg. Labcorp Test Menu).

4. Patient Testing:

- A. Allow test cup to come to room temperature (15-30 degrees C) prior to test.
- B. Testing staff member should be present near the restroom to receive urine DOA test cup and start the timer.
- C. Tear open foil bag, remove test cup and disposable gloves provided for donor. Label the device with patient information (name and date of birth or Medical Record number, see NIHD specimen collection policy).
- D. After collection is complete, the patient should close the lid and *immediately* return the cup to the testing staff member.
- E. Testing staff should peel off label to reveal test result.
- F. Read Adulterants strip at 2 minutes.
- G. Read urine temperature at 2-4 minutes, if the patient has urinated directly into the testing cup.
- H. Read test result at 5 minutes. DO NOT INTERPRET RESULT AFTER 10 MINUTES.
- 5. Result interpretation
 - A. All results should be considered preliminary.
 - B. A preliminary positive test result does not always mean a person took illegal drugs and a negative test result does not always mean a person did not take illegal drugs. There are a number of factors that influence the reliability of drug tests. Certain drugs of abuse tests are more accurate than others.
 - C. Negative: <u>Two</u> lines appear. One red line should be in the control region (C) and another apparent red or pink line adjacent should be in the test region (Drug/T). This negative result indicates that the drug concentration is below the detectable level. Note, the shade of red in the test line region (Drug/T) will vary, but it should be considered negative whenever there is even a faint pink line.
 - D. **Positive:** One red line appears in the control region (C). No line appears in the test region (Drug/T) This positive result indicates that the drug concentration is above the detectable level.
 - E. Invalid: Control line fails to appear. Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for the control line failure. Review the procedure and repeat the test using a new test panel. If the problem persists, discontinue using the lot immediately and contact the Point of Care Team for further instructions.
 - F. At the physician's discretion, preliminary positive tests can be confirmed by a reference lab. Patient safety and all potential clinical consequences should be taken into account before taking any actions based on preliminary results. See Limitations section for further information.
 - G. Adulterant tests (specimen validity tests): See Color Chart to interpret each result.
 - 1) Oxidants (OXI): Tests for the presence of oxidizing agents such as bleach and peroxide in the urine

Title: Drugs of Abuse Test Mckesson 12	-Drug Panel With Adulterants.
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- 2) Specific Gravity (S.G.): Tests for sample dilution. Normal levels for specific gravity will range from 1.003 to 1.030. Specific gravity levels of less than 1.003 or higher than 1.030 may be an indication of adulteration or specimen dilution.
- 3) pH: tests for the presence of acidic or alkaline adulterants in urine. Normal pH levels should be in the range of 4.0 to 9.0. Values below pH of 4.0 or above 9.0 may indicate the sample has been altered.

H. Temperature Indicator Strip:

- 1) Green color on temperature indicator strip corresponds to urine temperature.
- 2) A urine temperature significantly lower than normal human body temperature should be considered a possible indicator that the patient gave a urine specimen that is not their own if tested immediately after urine collection is performed.
- 3) Factors such as ambient temperature and time since collection should be taken into account when determining if urine temperature reflects a recently collected specimen.

LIMITATIONS:

- 1. The Drugs of Abuse Test Mckesson 12-Drug Panel with Adulterants test cup provides only a qualitative, preliminary analytical result. A secondary analytical method should be used before any result should be considered final. Providers should exercise caution before making clinical decisions based on preliminary results. Gas chromatography/mass spectrometry (GC/MS) is the preferred confirmatory method.
- 2. There is a possibility that technical or procedural errors, as well as other interfering substances in the urine specimen may cause erroneous results. Please see the package insert included with the test cups for a detailed, but not exhaustive, list of known non-cross-reacting substances, as well as precision, specificity, and sensitivity data.
- 3. Adulterants, such as bleach and/or alum, in urine specimens may produce erroneous results regardless of the analytical method used. If adulteration is suspected, the test should be repeated with another urine specimen.
- 4. A positive result does not indicate level of intoxication, administration route, or concentration in urine.
- 5. A negative result may not necessarily indicate drug-free urine. Negative results can be obtained when drug is present but below the cut-off level of the test. See the package insert for the cut-off levels for each of the tests.
- 6. A negative result does not necessarily rule-out recent drug use. Drugs and their metabolites are present in urine for varying lengths of time depending on frequency of drug use and the type of drug being monitored. Frequent drug screening may be necessary to rule out drug abuse.
- 7. The test does not distinguish between drugs of abuse and certain medications.
- 8. A positive result might be obtained from certain foods or food supplements.
- 9. A comprehensive medication list, including supplements and OTC medications, can be useful in ruling out falsely positive results. See the package insert for known cross-reactive substances under "Analytical Specificity."
- 10. The Drugs of Abuse Test Mckesson 12-Drug Panel with Adulterants test cup can be circumvented through adulteration or substitution. Observed collection can eliminate concerns of adulterants or substitution by preventing a patient from adding substances a urine or substituting another person's urine for their own.

REFERENCES:

- 1. McKesson Drugs of Abuse Test Cups Multi Drug Panel with Adulterants Product Insert.
- 2. Substance Abuse and Mental Health Services Administration. Clinical Drug Testing in Primary

CROSS REFERENCE P&P:

Title: Drugs of Abuse Test Mckesson 12	2-Drug Panel With Adulterants.
Scope: CLIA Waived testing staff.	Manual: Lab- Point of Care, RHC - Direct Care Policy
*	and Procedure
Source: POCT Coordinator CLS	Effective Date:08-22-2019

Approval	Date
CCOC	07-29-19
Medicine / ICU Committee	08-01-19
Medical Executive Committee	08-06-19
Board of Directors	08-22-19
Last Board of Directors Review	08-22-19

Developed: 07-22-2019 Reviewed: 6720 Revised: 6720 Supersedes: Version 2

NORTHERN INYO HOSPITAL POLICY AND PROCEDURE CLINICAL LABORATORY

Title: ELEVATED TROPONIN REPORTING		
Department: Chemistry	Department: Laboratory	
Source: Merry Armstrong, CLS	Effective Date:	

PRINCIPLE

To ensure that appropriate personnel are notified of first time elevated Troponin results in a timely manner.

POLICY

When a Troponin result is encountered of >/= .06 ng/mL and the patient has not had an elevated Troponin during the visit, the ordering provider shall be notified immediately upon resulting.

PROCEDURE

Upon recovery of a first time elevated Troponin result, appropriate personnel shall be contacted.

- 1. ER, ICU, MedSurg and Surgery: Call the result to the primary care RN. That individual will contact the physician.
- 2. Outpatient: Call physician's office and give results to the physician or to the office nurse, or person designated by the physician to accept results.
- 3. Patients at other Healthcare Facilities: Elevated Troponin results will be called to the primary care RN. If unable to deliver results to the primary RN or designee, results may be given to a CLS at that facility.

DOCUMENTATION

- Document the person and location of the person notified as well as date and time. Use the Call Documentation feature of the LIS. Document that the call was completed.
- If the decision is made not to call an elevated Troponin (i.e., a patient with a history of elevated Troponin during this visit) document with the reason, date, time and initials in Call Documentation feature of the LIS

Pathologist Approval		Date
Reviewed by Board of Directors	3	1/16/2019

Revised Reviewed 1/16/2019 Supercedes

NORTHERN INYO HOSPITAL POLICY AND PROCEDURE

Title: Fern Testing	
Scope: Perinatal	Manual: Lab- Point of Care
Source: POC Coordinator	Effective Date: 3/31/17

I. PURPOSE

The fern test detects the leakage of amniotic fluid. Premature rupture of membranes (ROM) can lead to fetal infection and subsequent mortality. Detection of membrane rupture and induced labor can eliminate this risk.

II. PRINCIPLE

The fern test is based upon the ability of amniotic fluid to form a microscopic crystalline pattern suggestive of fern leaves when the fluid specimen is allowed to air dry on a glass slide. The phenomenon is due to the interaction of high concentrations of electrolytes and protein in amniotic fluid relative to other fluids that may be present in the posterior vagina.

III. SCOPE

The procedure is performed in the perinatal department by physicians, mid-level practitioners and registered nurses (RN) who have been trained and maintain competency in this moderately complex procedure.

IV. REAGENTS, EQUIPMENT AND MATERIALS

- 1. Gloves
- 2. Sterile vaginal speculum, optional
- 3. Sterile swab
- 4. Microscope
 - a. Care of the microscope provided for fern testing is important but also quite simple:
 - i. Cover the microscope when not in use primarily to protect the objectives and oculars from dust accumulation
 - ii. Clean the objective lens following each use with the lens cleaner and lens paper provided; NOTE: Do not use a dry cloth, "Kleenex" or gauze when cleaning the lens; this will generally scratch the sensitive glass surfaces
 - iii. Keep the10x objective lens free from oil at all times
 - b. Weekly maintenance of the microscope by competent staff:
 - i. Clean dust in microscope area
 - ii. Clean oculars with lens cleaner and lens paper provided; dry with a clean, dry lens paper
 - iii. Clean stage with a suitable cleaner, e.g. tissue wipes moistened with deionized water or alcohol wet wipes, then dry with tissue wipes
 - iv. Clean condenser with lens paper and lens cleaner provided, then dry condenser with dry piece of lens paper
 - v. Record date and initial of person who performed maintenance on the microscope maintenance log
 - vi. Laboratory director or designee will review and sign the microscope maintenance log monthly
 - vii. Maintenance logs will be kept for a minimum of two years
 - c. Annual inspection/Preventative maintenance (PM) of the microscope by a specialist will be arranged by the laboratory
 - i. Document action taken with date and signature of authorized personnel
 - ii. Inspection/PM records are kept for a minimum of five years

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NORTHERN INYO HOSPITAL POLICY AND PROCEDURE

Title: Fern Testing	
Scope: Perinatal	Manual: Lab- Point of Care
Source: POC Coordinator	Effective Date: 3/31/17

- d. Repairs:
 - i. Necessary repairs will be performed by a service professional
 - ii. Document action taken with date and signature of authorized personnel
 - iii. Repair records will be kept for a minimum of five years
- 5. Clean microscope slide -- do NOT leave fingerprints on slide; this can cause a false positive
- 6. Commercial lens paper and lens cleaner
- 7. Tissue wipes, e.g. Kimwipes
- 8. Biohazard container

V. QUALITY CONTROL

- 1. This provider-performed microscopy procedure (PPMP) is classified as "moderately complex". Control materials are not available to monitor the entire testing process. Testing personnel are required to maintain competency.
- 2. To confirm the tester's ability to recognize the ferning crystallization pattern characteristic of dried amniotic fluid a second trained and competent RN examines the dried smear. Results of both RNs must agree and are recorded on the patient log.

VI. SPECIMEN

- 1. Acceptable specimens
 - a. Fresh vaginal pool samples collected with a sterile swab according to procedure and labeled with patient name, date of birth, date/time collected and initials of collector
- 2. Unacceptable specimens
 - a. Samples over one hour old
 - b. Unlabeled specimens
 - c. Specimens contaminated by blood, urine, cervical mucus, semen or alkaline antiseptic solutions -- these contaminates may cause false positive results (Note, the presence of meconium indicates ruptured membranes)
 - d. Specimens contaminated with lubricant or antiseptic
 - e. Specimens collected over 24 hours since rupture -- may cause false negative results
 - f. Specimens collected when volume of leakage is small -- may cause false negative result
- 3. Storage
 - a. For best results, test specimen as soon as possible after collection
 - b. Keep at room temperature until testing
- 4. Collection
 - a. Check patient ID by confirming two identifiers
 - b. Explain procedure to patient
 - c. Collect specimen according to Lippincott procedure
 - d. Label the swab container with patient name and date of birth, date/time of collection and collector's initials

VII. PROCEDURE

1. Smear a thin layer of the fluid obtained on the center portion of a clean glass microscope slide; be sure the layer is thin; spread evenly

Title: Fern Testing	
Scope: Perinatal	Manual: Lab- Point of Care
Source: POC Coordinator	Effective Date: 3/31/17

- 2. Allow the slide to air dry for at least 5 7 minutes; do not wave or blow on the slide and do not apply heat to assist in drying
- 3. Using a microscope, examine the dried smear under low power without a cover slip
- 4. If ferning is difficult to locate, examine all fields on the slide thoroughly

VIII. INTERPRETATION OF RESULTS

1. If present, the amniotic fluid crystallizes to form a fern-like pattern due to the relative concentrations of sodium chloride, proteins, and carbohydrates in the fluid

IX. RESULTS

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- 1. Positive = presence of a fern pattern indicates the presence of amniotic fluid and ROM
- 2. Negative = absence of a fern pattern indicates the absence of amniotic fluid and ROM

X. REPORTING

- 1. Record the presence of "ferning" or "no ferning" on the "Fern Test Patient Log" with the patient's name, date of birth, date of testing, initial of testing personnel and QC results
- 2. Record the presence of "ferning" or "no ferning" on the patient's medical record chart
- 3. Include the date/time, and name of person performing the test

XI. REFERENCES

- 1. Addison, Lois Anne. Laboratory Medicine, July 1999. P.451
- 2. University of New Mexico Health Sciences Center, Fern Test Procedure
- 3. UCSF POC Fern Test Procedure, June 2013
- 4. "Amniotic Fluid Fern Testing"; Family Birthing Suites the Finley Hospital, 20040515 S. Raymond; United Clinical Laboratories Technical Director/CIO January 1, 2007 (HR.3.10 in the Comprehensive Accreditation Manual for Laboratory and Point-of-Care Testing)

Approval	Date
Medical Director of the Laboratory	2/28/17
CCOC	2/27/17
Peri/Peds Committee	3/1/17
Interdisciplinary Committee	
Medical Executive Committee	3/7/17
Board of Directors	3/15/17
Last Board of Director Review	

Developed: 2/17 Reviewed: Revised: 11/17 Supersedes: Ferning, Microscope Use for Ferning

Title: Hemoccult Sensa Fecal Occult Blood*		
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care	
Outpatient Clinics		
Source: POC Coordinator	Effective Date: 05/16/2017	

I. PURPOSE

The Hemoccult test is a rapid, qualitative method for detecting fecal occult blood which may be indicative of gastrointestinal disease. It is not a test for colorectal cancer or any other specific disease. It is used as an aid in detecting gastrointestinal bleeding in patients with iron deficiency anemia or recuperating from surgery, peptic ulcer, and ulcerative colitis.

II. PRINCIPLE

The Hemoccult test is based on the oxidation of guaiac by hydrogen peroxide to a blue-colored compound. The heme portion of hemoglobin, if present in the fecal specimen, has a peroxidase activity which catalyzes the oxidation of alpha guaiaconic acid (active component of guaiac paper) by hydrogen peroxidase (active component of the developer) to form a conjugated blue quinine compound.

III. MATERIALS AND REAGENTS

- Hemoccult slides (test cards Hemoccult SENSA)
- Hemoccult developer
- Applicator sticks

Obtain supplies from purchasing

IV. STORAGE AND STABILITY

- Store slides and developer at room temp (15 to 30°C or 59 to 86°F)
- Do not refrigerate or freeze
- Hemoccult slides and developer remain stable until expiration dates
- Do not store with volatile chemicals like ammonia, bleach, bromine, iodine, household cleaners

V. SPECIMEN COLLECTION AND PRECAUTIONS

- A. Acceptable specimens
 - 1. A fresh stool specimen can be collected in a clean dry container.
 - 2. Fresh stool specimens can be obtained by a physician or care provider, during a physical exam then applied as trained.
- B. Instructions for patients

The following instructions are patient instructions for outpatients who are going to be bringing the sample cards back to the lab for development

- 1. For accurate test results, apply samples from bowel movements collected on three different days
- 2. Do not collect sample if blood is visible in your stool or urine (e.g. menstruation, active hemorrhoids, urinary tract infection)
- 3. For the most accurate test results collect each stool sample before contact with the toilet bowl water. You may use any clean dry container.
- 4. Return completed slides to the laboratory no later than 10 days after your first sample collection.

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Title: Hemoccult Sensa Fecal Occult Blood*	
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics	
Source: POC Coordinator	Effective Date: 05/16/2017

- 5. Protect slides from heat, light and volatile chemicals.
- C. Drug guidelines
 - 1. For seven days before and during stool collection, avoid non-steroidal anti-inflammatory drugs such as ibuprofen, naproxen or aspirin (more than one adult aspirin per day).
 - 2. Acetaminophen (Tylenol) can be taken as needed.
 - 3. For three days before and during stool collection period, avoid Vitamin C in excess of 250 mg a day from supplements and citrus fruit and juices.
- D. Diet guidelines
 - 1. For three days before and during stool collection period, avoid red meat (beef, lamb and liver).
 - 2. Eat a well balanced diet including fiber such as bran cereals, fruits and vegetables.

NOTE: 100% of Recommended Dietary Allowance (RDA) of Vitamin C is 60 mg a day. Some iron supplements contain Vitamin C in excess of 250 mg.

VI. TEST PROCEDURE

- 1. Using the applicator stick, smear fecal material to the designated "A" and "B" windows on the front side of the testing card.
 - Only a very small amount of fresh fecal specimen, **thinly applied**, is necessary in preparing the slide. With side or flattened part of applicator stick apply fresh stool scrape most of residual stool off.
 - Select sample from two different sections of fecal specimen.
 - A fresh stool specimen slightly contaminated with urine is acceptable, if it is know that the **urine is negative for blood and/or hemoglobin**.
 - **DO NOT** use sample if blood is visible.
- 2. Close the front flap.
- 3. Wait 3-5 minutes after the sample application before developing the test.
- 4. Open the flap in the back and apply 2 drops of Hemoccult SENSA developer over each smear.
- 5. Interpret within 60 seconds.
- 6. Any trace of blue on or at the edge of the smear is positive for occult blood.

VII. QUALITY CONTROL

Quality control areas must be developed on every slide. They are located under the sample area on the developing side of the slide. Perform quality performance (quality control) after patient has been developed and read.

- 1. Apply 1 drop of Hemoccult SENSA developer between the positive and negative test areas after the test is developed, read and interpreted as negative or positive.
- 2. Read result within 10 seconds.
- 3. If the slide and developer are functional, a blue color will appear in the **positive performance monitor** (QC) area and **no blue** will appear in the **negative performance monitor** (QC) area.

Title: Hemoccult Sensa Fecal Occult Blood*	
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics	
Source: POC Coordinator	Effective Date: 05/16/2017

Note: In the event that the performance monitor areas do not react as expected after applying developer, the test slide should be discarded and a new test slide should be obtained. If the problem persists, call the lab POC team.

VIII. RESULTING

- 1. Normal results are negative no blue color.
- 2. Any blue is considered positive (occasionally, a light blue discoloration may be noticed on the guaiac test paper). This discoloration does not affect the accuracy or performance of the test when it is developed and interpreted according to the discolored slide, the blue background color migrates outward. A blue ring forms at the edge of the wetted area, leaving the guaiac paper around the fecal smear off-white in color. Any blue on or at the edge of the smear is positive for occult blood.
- 3. If applicable, obtain an occult blood testing form, add a patient label. Fill out the patient result, source, date of completion, initials of tester; include also, the card lot number, expiration date, developer lot number and expiration date. Also, record the internal control results. Route paper copy to POC team in the laboratory.
- 4. Record the patient result in the patient chart.
- 5. DO NOT REPORT PATIENT RESULTS IF INTERNAL CONTROLS ARE INVALID!
- 6. Some specimens have a high bile content which causes the feces to appear green. A distinct green color (no blue), appearing on or at the edge of the smear within 60 seconds after adding the developer should be interpreted as negative for occult blood. A blue-green color should be interpreted as positive for occult blood.

IX. LIMITATIONS AND INTERFERENCES

- A. Substance that can cause **false-negative** test results:
 - a. Ascorbic acid (Vitamin C) in excess of 250 mg/day.
 - b. Excessive amounts of Vitamin C enriched foods (citrus fruits and juices).
- B. Substance that can cause **false-positive** test results:
 - a. Red meat (beef, lamb, liver).
 - b. Aspirin (>325 mg/day), and other non-steroidal anti-inflammatory drugs such as ibuprofen, indomethacin and naproxen.
 - c. Corticosteroids, phenylbutazone, reserpine, anticoagluants, antimetabolites and cancer chemotherapy drugs.
 - d. Alcohol in excess.
 - e. The application of antiseptic preparations containing iodine (povidone/iodine mixture) to anal area.

NOTE: Dietary iron supplements will not produce false-positive results.

X. EXPECTED RESULTS

In general, screening asymptomatic individuals, a positivity rate of approximately 3-7% was obtained. The false positive rate for colorectal disease was 1-3% depending on the compliance to collection requirements.

Title: Hemoccult Sensa Fecal Occult Blood*	\$
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics	
Source: POC Coordinator	Effective Date: 05/16/2017

XI. REFERENCES

1. Beckman Coulter Hemoccult SENSA Package Insert 06-2015

Approval	Date
Medical Director of the Laboratory	4/20/16
CCOC	3/27/17
Emergency Medical Care Committee	3/16/17
Medical Services Committee	3/23/17
Peri/Peds Committee	3/21/17
Medical Executive Committee	4/4/17
Board of Directors	4/19/17
Last Board of Directors Review	

Developed: 3/16 Reviewed: Lab 3/17, Board of Directors 4/17 Revised: Supersedes:

Title: Obtaining Blood Bank Samples f	rom Patients in Surgery
Scope: Laboratory, Surgery	Department: Laboratory
Source: Immunology Coordinator	Effective Date:

PURPOSE:

This policy explains how specimens for blood bank work are collected from patients already in surgery.

POLICY:

There are three methods for obtaining blood bank samples from patients already in surgery:

- 1. A member of the laboratory team gowns up and enters the surgery suite; identifies the patient, draws and labels the sample, then bands the patient.
- 2. A member of the surgery team draws and labels the sample with the patient's name, date of birth and medical record number. A member of the laboratory team waiting at the at the entrance to the surgical suite accepts the specimen, verbally confirms the patient ID with the surgery team, prepares the blood bank band and hands the blood bank band to the surgical team to place on the patient.
- 3. A member of the surgery team draws and labels the sample with the patient name, date of birth, medical record number and blood bank label, then bands the patient with the blood bank band and sends the sample to the lab.

The method for obtaining blood bank samples depends on the time of day and available personnel:

- 1. Phlebotomists are on site from 5am to midnight 7 days a week. During this period, the preferred method is method (1). Employ methods (2) and (3) if necessary.
- 2. Between midnight and 5am, one Clinical Laboratory Scientist is on site and one phlebotomist is on call. The Clinical Laboratory Scientist does not draw blood. During this period, employ methods (2) or (3).

NOTES:

- 1. Orders originating from surgery for blood bank work are phoned orders. Laboratory personnel will enter orders in the information system and fill out necessary paperwork.
- 2. Use the following contact numbers:
 - a. Between 6am and 5pm extension 3679
 - b. Between 5pm and 6am extension 2113 or radio
- 3. When notifying the lab for a needed blood draw, specify the patient name and the surgery suite number.

CROSS REFERENCES:

- 1. Correct Identification of Patients for Blood Bank Work; Transfusion Service policy and procedure; updated 12-2018
- 2. Blood Bank Sample Collection; Transfusion Service policy and procedure; updated July 2018

Reviewed by	Date
CCOC	
Surgery/Tissue/Transfusion/Anesthesia Committee	10/23/19
Medical Executive Committee	
Board of Directors	
Last Board of Directors Review	

Revised Reviewed Supercedes



Title: Emergency Order and Shipment of Blo	ood Components from UBS	
Scope: Transfusion Service	Department: Laboratory	
Author: Coordinator of Immunology	Effective Date: March 2016	
Copy Location: Transfusion Service	Revised Date:	

- I. Principle
 - a. In an emergency when a hemorrhaging patient will need more blood products than what is on site,th e transfusion service in the lab arranges an emergency shipment of blood.
 - b. There are two methods for emergency transport of blood products from UBS Reno
 - i. California and Nevada Highway Patrol
 - ii. Couriers

II. Procedure

- a. California and Nevada Highway Patrol
 - i. The physician must declare an extreme life-threatening emergency.
 - ii. Determine what and how many products are needed-packed cells, platelets, FFP, etc. We only want to make one emergency blood run per incident.
 - iii. Order products from UBS and explain that this is an emergency and you will contact CHP and NHP for immediate transport.
 - iv. Call the CHP dispatcher in Bishop at **1-760-872-5900**. Request an emergency blood transport from Reno. CHP needs the patient and physician names.
 - v. Tell the CHP that you are calling NHP. Sometimes CHP will call NHP and make arrangements and you can skip steps (vi) and (viii).
 - vi. Call the NHP dispatcher in Reno, at **1-775-687-0400**, requesting an emergency blood transport from Reno to Bishop. NHP will contract their supervisor for permission. NHP needs the patient and physician names.
 - vii. Give the NHP dispatcher in Reno the address and phone number of UBS-1125 Terminal Way, Reno, NV 89502, 1-775-329-6451 or 800-365-9471 775-786-6698
 - viii. Ask NHP to contact the CHP Bishop dispatcher. The two agencies will decide where to meet—usually they exchange the shipment at the California/Nevada border.
 - ix. Notify the physician and the nursing supervisor of the progress of the transport.
- b. Courier
 - i. The physician does not need to declare an extreme life-threatening emergency, just an urgent situation.
 - ii. Order products from UBS Reno and explain this is an emergency.
 - iii. UBS Reno will send a courier as far as Bridgeport, and we will send a courier to pick up the shipment in Bridgeport. Usually the two couriers meet at the MoMart located at the corner of Twin Lakes Road and US-395.
 - iv. Notify the physician and the nursing supervisor of the progress of the transport.

Reviewed by Suia Sula 2/20/19	Date
Peri-Peds Committee	6/22/18
Emergency Room Service Committee	7/11/18
Pharmacy & Therapeutics Committee	7/5/18
Surgery/Tissue Committee	7/25/18
Board of Directors	

NORTHERN INYO HOSPITAL

POLICY AND PROCEDURE

Title: Blood Bank—Emergency Request	s for Blood Components	
Scope: Hospital Wide	Manual: CPM	
Source: Immunology Coordinator	Effective Date:	

PROCEDURE:

- 1. Call the laboratory with a verbal order for emergency units. Inform the laboratory how many units, how soon the units are needed and where the patient is.
- 2. Call the Nursing Supervisor to arrange transportation of the units to the patient area.
 - a. If the patient is in surgery and it is determined that lab personnel will transport the units, arrange to meet the transporter in an area where it is not necessary for the transporter to gown up.
- 3. When the transport box with the units is received, keep the box with the patient until the physician determines the blood is no longer needed.
- 4. After removing a unit, close the container to keep the temperature of the units below 6C.
- 5. Call the laboratory to return the blood container as soon as it is not needed. The container must be returned to the blood bank within 4 hours.
- 6. If the container is needed more than 4 hours, call the laboratory.

A	Date
Approval	5/14/2019
0000	7/24/2020
Laboratory Director	7/22/2020
STTA	8/4/2020
Medical Executive Committee	0/4/2020
Board of Directors	
Last Board of Directors Review	

Responsibility for review and maintenance: Index Listings: Initiated: Revised/Reviewed:

Title: Hemosure - One Step Immunological Fecal Occult Blood Test*		
Scope: Lab, Outpatient Clinics Manual: Lab- Point of Care		
Source: POC Lab Coordinator Effective Date: 5/16/17		

I. INTENDED USE

Hemosure One Step Immunological Fecal Occult Blood Test (iFOB) is a CLIA waived qualitative, sandwich dye conjugate immunoassay. It is intended as a qualitative determination of Fecal Occult Blood. It is useful as an aid in determining gastrointestinal bleeding in a number of gastrointestinal disorders, e.g. diverticulitis, colitis, polyps, and colorectal cancer.

II. PRINCIPLE

Hemosure One Step iFOB employs a unique combination of monoclonal and polyclonal antibodies to selectively identify hemoglobin in test samples with a high degree of sensitivity. In less than five minutes, elevated levels of human hemoglobin (Hb) as low as 50 ng Hb/mL can be detected and positive results for high levels of hemoglobin can be seen in the test as early as two to three minutes. As the test sample flows up through the absorbent device, the labeled antibody-dye conjugate binds to the hemoglobin antibody in the positive test reaction zone and produces a pink-rose color band. In the absence of hemoglobin, there is not line in the positive test reaction zone. The pink-rose color bands in the control reaction zone demonstrate that the reagents and devices are functioning correctly.

III. MATERIALS AND REAGENTS

A. Materials included with testing device

- 1. One (1) test cassette individually sealed in a foil pouch
- 2. A corresponding fecal collection tube containing 2.0 mL of extraction buffer
- B. Materials required but not supplied
 - 1. Clock or timing device
 - 2. Sample collection container
 - 3. Disposable gloves

IV. STORAGE AND STABILITY

- 1. Store test device at 2 to 30° C ($36-86^{\circ}$ F).
- 2. The device and collection buffer are stable until the expiration date printed on the labels.
- 3. It is recommended to use the sample soon after collection; otherwise, the tube may be stored up to six (6) days at room temperature and up to thirty (30) days in refrigerator at 2-8°C (36°F-46°F).

V. SPECIMEN COLLECTION

- A. Fecal sample should be collected using disposable gloves, preferable not to come in contact with toilet water. If that is unavoidable, make sure that the toilet is thoroughly flushed prior to collecting specimen.
- B. Unscrew cap off the fecal collection tube and remove applicator stick.
- C. Randomly insert the applicator stick into the fecal sample three (3) to six (6) times. Use only enough fecal material to cover the grooved portion of the stick. **Do not clump, scoop, or fill the collection tube.**
- D. Secure the cap back onto the collection tube and shake well. Make sure the buffer solution looks discolored and hazy (the color of weak tea). Buffer solution should not be grossly cloudy or a heavy mixture.

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Title: Hemosure - One Step Immunological Fecal Occult Blood Test*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care
Source: POC Lab Coordinator	Effective Date: 5/16/17

- E. Instruct patients as follows for home collection:
 - 1. Inform the patient to collect stool sample in a clean dry container.
 - 2. Show the patient the example of collecting the sample with the purple lid applicator stick and caution the patient to NOT MAKE BUFFER GROSSLY CLOUDY OR TO NOT MAKE A HEAVY MIXTURE. Specimen should appear as weak tea color.
 - 3. Return the applicator stick into the fecal collection tube
- F. A specimen should not be collected from a patient with the following conditions that may interfere with the test results:
 - Menstrual bleeding
 - Constipation bleeding
 - Bleeding hemorrhoids
 - Urinary bleeding

VI. TEST PROCEDURE

A. Remove the test cassette from its foil wrapper by tearing along the slice.

- B. Shake the fecal collection tube to ensure that the fecal sample is well mixed.
- C. Twist off the tip of the cap on the fecal collection tube. Add **three (3) drops** of the extraction buffer mixture to the sample well.
- D. Start timer.
- E. Read results within five (5) to ten (10) minutes. DO NOT READ AFTER TEN (10) MINUTES.

VII. READING AND INTERPRETING RESULTS

- **POSITIVE**: One (1) **pink band** appearing in the "T "region and
 - One (1) pink band appearing in the "C" region
- **NEGATIVE:** Only one pink band in the "C" region
- INVALID: No bands appearing in the window at all

The test will have to be repeated with a new test cassette

Note: Positive test results may appear before 5 minutes. To verify a negative test result, be certain to wait a full 5 minutes. Do not read after ten minutes. See Package insert for a visual of test interpretation.

VIII. REPORTING OF RESULTS

- A. Results are reported to the provider and recorded in the patient electronic record.
- B. Please include lot number of kit in use, along with interpretations.
- C. C and T = pink = Positive; C = pink and T and background = clear = Negative.

IX. QUALITY CONTROL

A. Internal quality control

The built-in Control feature: C-line (Control line) appears next to the C test window. The presence of this line indicates that an adequate sample volume was used and that the test cassette worked properly. If no C line appears the test is invalid and must be repeated.

B. External quality control

Title: Hemosure - One Step Immunological Fecal Occult Blood Test*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care
Source: POC Lab Coordinator	Effective Date: 5/16/17

The use of external controls assures the functionality of reagents and proper performance of the test procedure. Hemosure iFOB Control set should be tested in the same manner as a patient, i.e. 3 drops of control material and wait 5 minutes to read.

- iFOB Controls are stored between 2 and 8°C and are stable until expiration date on label.
- Frequency of external QC, at a minimum, is every 30 days or when a new lot number of testing devices are in use.

Note: If invalid results occur repeatedly or for technical assistance contact Hemosure at:

• 1-888-436-6787 or

contact the hospital POC team in the laboratory.

X. PERFORMANCE CHARACTERISTICS

A. Sensitivity

The test is able to detect 50 ng human hemoglobin per 1 ml of buffer or 50 μ g human hemoglobin per gram of feces.

B. Specificity

Hemosure One Step Immunological Fecal Occult Blood Test is specific for human hemoglobin. Please see package insert for detailed discussion of specificity, accuracy, and comparison studies.

XI. LIMITATIONS

- A. Same as other occult blood tests, Hemosure One Step may not be considered as a conclusive diagnostic for gastrointestinal bleeding or pathology. The test results can only be regarded as a preliminary screening or as an aid to diagnosis. It is not intended to replace other diagnostic procedures such as gastrointestinal fibroscope, endoscopy or colonoscopy. Or other x-ray studies.
- B. FALSE NEGATIVE: A negative result can be obtained even when a gastrointestinal disorder is present. Some bowel lesions may not bleed at all or may bleed intermittently, or the blood may not be uniformly distributed in a fecal sample.
- C. FALSE POSITIVE: Certain medications may cause gastrointestinal irritation resulting in occult bleeding. This may result in a false positive test result.
- D. Abnormal human hemoglobin was not tested for potential cross-reactivity.
- E. Color blind users may see the control and test lines as gray rather than pink-rose lines.

XII. REFERENCES

1. Package Insert Hemosure One-step Immunological Fecal Occult Blood Test; 09/05/2013

Approval	Date
Medical Director of the Laboratory	6/29/16
CCOC	3/27/17
Medical Services Committee	3/23/17
Medical Executive Committee	4/4/17
Board of Directors	4/19/17
Last Board of Directors Review	

Developed: 3/16

Title: Hemosure - One Step Immunological Fecal Occult Blood Test*		
Scope: Lab, Outpatient Clinics Manual: Lab- Point of Care		
Source: POC Lab Coordinator Effective Date: 5/16/17		

Reviewed: Lab 3/17, Board of Directors 4/17 Revised: Supersedes:

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Title: Pathology Specimens In The Operating Room		
Scope: Perioperative Unit	Department: Infection Control Blue Manual, Surgery	
Source: Perioperative DON	Effective Date: 2/18/16	

PURPOSE:

To define the types of specimens to be sent to Pathology and assure specimens are properly handled, labeled and recorded.

POLICY:

All anatomical parts, tissues and foreign objects removed during surgical procedures will be sent to the pathology laboratory for verification of diagnosis including orthopedic hardware. The exceptions are cataract tissue, C-Section placentas as designated by Surgeon and arthroscopy shavings. If the surgeon asks to have cataract tissue, arthroscopy shavings, or placenta sent to pathology, the specimen will be sent to Pathology per this policy / procedure.

The Pathologist has the ultimate responsibility for making decisions about the extent of the examination of the tissue.

It is a joint responsibility of both the circulating and scrub personnel to assure that each specimen is properly handled and labeled for each surgical procedure. It is the responsibility of the perioperative RN to verify the name of each specimen with the surgeon, to enter the specimen in the patient record and submit the electronic pathology order. If the electronic system is down, follow down time procedure, creating a paper record. A physician order is not required.

EQUIPMENT:

- 1. Printed Patient identification labels.
- 2. Containers and or plastic bags appropriate for size of specimen.
- 3. Biohazard bags for all specimens
- 4. TranSpec Plastic containers for breast biopsy with needle localization (x-ray)

SPECIAL INSTRUCTIONS:

- 1. Placentas not going to Pathology will be placed in a leak-proof plastic container, fluid solidifier will be added and the container will be placed in a double red-bag for disposal.
- All specimens will be placed in Formalin <u>EXCEPT</u> those specified for <u>FROZEN</u> <u>SECTIONS</u> which will be taken to pathology <u>IMMEDIATELY</u> for processing. Exemptions to this rule:
 - Muscle biopsies to be sent to UCSF for processing and they must be prepared according to the Muscle Biopsy policy.
 - Crystal analysis specimen is sent fresh.
- Breast tissue specimens for LOCALIZATION will be taken in a labeled TranSpec Plastic container to x-ray for confirmation that specimen contains lesion and that the localization wire is intact before specimen is taken to pathology. Note on operating room record that the wire is included or separate from specimen when it goes to x-ray or pathology. If lesion is not present, physician will be notified so more specimen can be obtained.

Title: Pathology Specimens In The Operating Room	
Scope: Perioperative Unit	Department: Infection Control Blue Manual, Surgery
Source: Perioperative DON	Effective Date: 2/18/16

Procedure for transporting breast tissue Frozen Sections;

- Surgical Registered Nurse or Surgical Technician will transport the labeled specimen to the Radiology Unit and hand the specimen in its container to the Mammography Technician along with the patients x-rays. The extension for the OR Suite will be included on the specimen label.
- Surgical Registered Nurse or Surgical Technician will remain in the Radiology Unit and wait for the specimen.
- Surgical Registered Nurse or Surgical Technician will ask the Radiologist to call the operating room where patient is located and notify the surgeon if the calcification/lesion is in the specimen.
- Surgical Registered Nurse or Surgical Technician will transport the specimen and the new mammography film to Pathology and hand it to the Pathology personnel <u>indicating that the specimen is for a frozen section</u>. After handing the specimen to pathology personnel, the transport person will call the operating room where the patient is located and notify the surgeon that the specimen is in pathology. <u>DO NOT LEAVE THE SPECIMEN WITHOUT THE</u> <u>PRESENCE OF PATHOLOGY PERSONNEL – MUST PHYSICALLY</u> <u>HAND THE SPECIMEN TO PATHOLOGY PERSONNEL.</u>

PROCEDURE FOR ROUTINE SPECIMENS:

- Specimen identification should be <u>confirmed verbally between the surgeon and the registered nurse</u> <u>circulator</u> and should include a read back verification, and be documented on the appropriate forms. (See policy Identification of Surgical Specimens)
- All specimens will be placed in a specimen container appropriate for the size of the specimen. Containers should;
 - Be large enough to safely secure the specimen and fluids.
 - Be of a size appropriate to allow preservatives or solutions, to contact all surfaces of the specimen.
 - Be sterile or clean, depending on collection requirements.
 - Be labeled with patient identification, specimen type, site and date of surgery. Surgeons name should be included if different from patient identification label.
- Specimens secured on the sterile field before transfer should be maintained in a manner to prevent misidentification or mishandling.
- The specimen should be contained and labeled immediately to prevent mishandling and errors.
- If more than one specimen per patient, place each specimen in a separate container and designate with a number and label as above.
- Labeled specimen containers should be placed in a designated area on the back table to keep them separated.
 - The specimen containers will be on the top of the back table after labeling for scope procedures.

Title: Pathology Specimens In The Operating Room		
Scope: Perioperative Unit	Department: Infection Control Blue Manual, Surgery	
Source: Perioperative DON	Effective Date: 2/18/16	

> The specimen containers will be on the bottom of the back table after labeling for sterile procedures.

- A list of each specimen should be made on the pathology order and operating room record with numbers that co-ordinate with specimen container.
- All specimens will be considered contaminated and handled utilizing standard precautions.
- When adding formalin to specimen containers, personnel will wear appropriate protective devices;
 - > Goggles or face shield
 - > Gloves, and protective clothing
 - > Close formalin dispenser lid when finished filling specimen container.
 - Place a label on the container indicating that formalin has been added. These labels are located next to the formalin dispenser.
 - > All specimen containers will be placed in a secondary leak-proof container for transport.

SPECIMENS:

AMPUTATION SPECIMENS:

- Place amputated limb into impervious stockinet appropriate for limb size.
- Place appropriate size rigid specimen container over exposed bone to prevent accidental exposure to pathology personnel.
- Seal top of stockinet to contain the specimen.
- Place the limb into a second red bag for transport.
- This bag should be clear and appropriately labeled with the patient identification label as described previously.
- Make sure bag is sealed appropriately for transport.
- If during work hours walk specimen to pathology.
- If after work hours contact clinical laboratory specialist on duty and they will store specimen appropriately.

CYTOLOGY SPECIMENS:

- During regular hours, cytology specimen is to be taken **IMMEDIATELY** to pathology.
- <u>AFTER HOURS:</u> SPUTUMS, URINES, BRONCHIAL WASHINGS, PLEURAL AND ABDOMINAL FLUIDS are fixed by using <u>COATING FIXATIVE</u> (Saccammano Technique). Add equal parts of fixative and specimen. <u>LARGE</u> amount of specimens such as abdominal fluid, put 25ml of specimen into (2) 50ml containers and add equal parts of fixative. <u>ONCE</u> <u>FIXATIVE HAS BEE ADDED ONLY CYTOLOGY</u> <u>TESTS CAN BE RUN.</u> <u>FIXATIVE SOLUTION IS IN CABNET UNDER</u> FORMALIN

RAPID FROZEN SECTION:

• Alert pathology department so pathologist is present.

Title: Pathology Specimens In The Operating Room		
Scope: Perioperative Unit	Department: Infection Control Blue Manual, Surgery	
Source: Perioperative DON	Effective Date: 2/18/16	

• Place electronic order, label specimen, include operating room phone extension and walk specimen to pathology immediately. **DO NOT PUT SPECIMEN IN FORMALIN.**

FOREIGN BODIES

• Any foreign body that might be used as evidence in a lawsuit or criminal action is to be labeled and handled as bullets (see disposition of evidence form and policy); all other foreign bodies are sent to pathology as usual.

ORTHOPEDIC HARDWARE/IMPLANTS

- Removed from a patient **DO** have to go to pathology.
- If the patient would like to have their hardware, they may call Pathology the following day to arrange pickup. Before hardware may be released to the patient, it must be cleaned and terminally processed. Please note on pathology slip if patient wishes to pick up hardware.
- Gross Examination Only of specimens is at the discretion of the Pathologist.

REFERENCES:

- 1. Current and Relevant JCAHO and Title 22 Standards
- 2. AORN Perioperative Standards and Recommended Practices for the Care and Handling of Specimens in the Perioperative Environment.
- 3. Northern Inyo Hospital Policy's Identification of Surgical Specimens and Submission of Biopsy (Tissue) Specimens

CROSS REFERENCE P&P

Approval	Date
CCOC	2/8/16
STTA	1/27/2016
MEC	2/2/16
Board	2/17/16

Developed:

Reviewed:

Revised: 2003 BS 2008 BS ; 6/2011 BS BS 9/12 , AW 7/14 , 2/15 AW, 1/2016 BS Supercedes: July 2014

Responsibility for review and maintenance: Perioperative Director on Nurses Index Listings: Pathology Specimens in the Operating Room/Specimens Pathology

Title: Point of Care Accu-Chek Blood Gluc	ose Testing*	×.
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care	
Outpatient Clinics, PACU, Perinatal		
Source: POC Coordinator	Effective Date: 8/1/2018	

I. INTENDED USE

Accu-Chek Inform II test strips are for use with the Accu-Chek Inform II meter for the quantification of glucose levels in venous whole blood, arterial whole blood, neonatal heel stick or fresh capillary whole blood samples drawn from fingertips as an aid to monitoring the effectiveness of glucose control. The test is to be used for monitoring glucose levels. This system is NOT intended for the use in diagnosis or screening of diabetes mellitus.

The Accu-Chek Inform II blood glucose monitoring system is approved for Waived Testing Status by the FDA. It is for in-vitro diagnostic use only and is intended for multiple patients used in healthcare settings when compliant cleaning and disinfecting recommendations of the FDA, CDC, and CMS are followed. Accuracy and precision in critically ill patients has not been evaluated.

II. PRINCIPLE

The Accu-Chek Inform II system quantitatively measures glucose in whole blood. The enzyme on the test strip, a mutant variant of glucose dehydrogenase converts the glucose in the blood sample to gluconolactone. This reaction creates a harmless electrical DC current that the meter interprets for a glucose result in mg/dL. The sample and environmental conditions are evaluated using a small AC signal.

The system is calibrated with venous blood containing various glucose concentrations and is calibrated to deliver plasma-like results. The reference values are obtained using a validated test method. This test method is referenced to the hexokinase method and is traceable to an NIST standard.

Sample size: 0.6 uL Test time: 5 seconds System measurement range: 10-600 mg/dL

III. MATERIALS, REAGENTS AND EQUIPMENT

- A. Items included
 - 1. Accu-Chek Inform II glucose monitor
 - 2. Accu-Chek Inform II base unit (charging station)
 - 3. Accu-Chek Inform II test strips (50 strips per vial)
 - 4. Accu-Chek Inform II control reagents high and low control

B. Items not included

- 1. Disposable gloves
- 2. Safe T-Pro lancets or Tenderfoot lancets
- 3. Warming pack
- 4. Alcohol prep wipes
- 5. Gauze or cotton balls
- 6. Bandages (optional)
- 7. Clorox[™] germicidal disposable wipes (EPA reg. No. 67619)

NORTHERN INYO HOSPITAL

A. I OLICI AND I ROCEDURE
cose Testing*
Manual: Lab- Point of Care
Effective Date: 8/1/2018

IV. SPECIMEN REQUIREMENTS

A. Acceptable specimens

- 1. Fresh whole blood sample types
 - Capillary whole blood (fingerstick or neonate heelstick) NOTE: Samples must be tested immediately
 - Venous whole blood
 - Arterial whole blood
- 2. Acceptable Anticoagulants
 - EDTA
 - Lithium or Sodium Heparin NOTE: Samples must be tested within 30 minutes of drawing
- B. Unacceptable specimens
 - Plasma or serum
 - Cord blood
 - Use of iodoacetate or fluoride-containing anticoagulants

V. PATIENT TESTING SPECIMEN COLLECTION PROCEDURE

A. Finger stick procedure

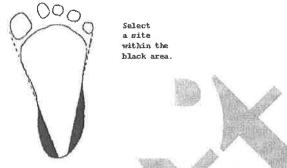
- a. Select the finger site for puncture (use middle or ring finger not recently punctured)
- b. Enhance blood flow to the selected puncture site
 - Warming the site
 - Instructing the patient to flex and move the arm, wrist, hand and fingers while you are assembling your supplies and preparing the system for testing
 - Positioning the intended puncture site below heart level
 - Gently massaging in an outward (distal) direction from the palm and the base of the finger to the fingertip
- c. Cleanse the puncture site by means of appropriate cleansing product. Allow the site to air dry completely before puncturing
- d. Advise the patient of imminent puncture
- e. Accu-Chek Safety Pro lancet use:
 - Twist off the protective cap of the Safe-T-Pro Plus lancet and discard
 - Choose the desired depth setting
 - Hold the Safe-T-Pro Plus lancet tip against the puncture site
 - Press the purple trigger button, dispose in sharps container

B. Heel stick procedure

 \rightarrow See diagram below for safe area of heel stick wound

NORTHERN INYO HOSPITAL

	A. FOLICI AND FROCEDORE
Title: Point of Care Accu-Chek Blood Gluc	cose Testing*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics, PACU, Perinatal	
Source: POC Coordinator	Effective Date: 8/1/2018



- a. Collect while: (1) baby is skin-to-skin if at all possible, or (2) baby is in room, or lastly (3) baby is in nursery accompanied with a parent. Keep area warm. Enhance blood flow to the selected puncture site by:
 - Warming the site
 - Positioning the intended puncture site below heart level
 - With one hand, bend the foot in a proximal direction and grasp the foot and ankle so that the heel is prominent
 - Gently massaging in an outward (distal) direction toward the heel with index finger and thumb
- b. Clean incision area with antiseptic and allow to air dry. DO NOT allow heel to come in contact with a non-sterile area
- c. Remove appropriate Tenderfoot device
- d. Remove the safety clip. Once clip is removed DO NOT push trigger or touch blade slot. *NOTE: prolonged exposure can compromise sterility of the site.*
- e. NEVER puncture deeper than 2.4-2.5 mm. NEVER puncture through a previous site. NEVER puncture on the posterior eurvature pole of the heel or arch.
- f. Place blade slot surface flush against the heel so its center point is vertically aligned with the incision site.
- g. Ensure that both ends of the device have made light contact with the skin and depress the trigger. Immediately remove the device from the heel
- h. Use a dry sterile gauze to gently wipe away the first droplet of blood
- i. Taking care not to make direct contact with the collection container or Accu-Chek testing strip allow the strip to fill by capillary action
- i. Press a dry sterile gauze to the incision until bleeding has stopped or apply a bandage
- k. Dispose of lancet in a sharps container

C. Other blood collections

a. Peripheral whole blood is acceptable for use with the Accu-Chek. One drop from a syringe is acceptable or anticoagulated blood can be used, refer to section IV A.2 for acceptable anticoagulants that can be used for testing.

	A TOLICI MUDIMOC	
Title: Point of Care Accu-Chek Blood Gluc	ose Testing*	
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care	
Outpatient Clinics, PACU, Perinatal		
Source: POC Coordinator	Effective Date: 8/1/2018	

VI. STORAGE OF TEST STRIPS AND CONTROLS

A. Test Strips:

- 1. Store strips and controls between 4-30°C (39-86°F)
- 2. Use strips at temperatures between 16-35°C (61-95°F)
- 3. Keep strips away from dampness and humidity of >80%
- 4. Keep unused strips stored in original container with cap tightly closed
- 5. Date container with open date
- 6. Strips are stable until the date on the vial
- 7. Strips should be used immediately after removing from the container
- 8. DO NOT USE expired test strips
- B. Controls
 - 1. Control Reagent package contains 2 control solutions
 - Hypoglycemic range (control solution 1, gray cap)
 - Hyperglycemic range (control solution 2, white cap)
 - Refer to package insert for specific ingredients of the solutions
 - 2. Controls are stored between 4-30°C (39-86°F)
 - 3. Use control solutions at room temperatures
 - 4. Date vials with open and expiration dates after opening
 - 5. Control vials are stable 3 months after opening

VII. QUALITY CONTROL

- A. Must be <u>run each day</u> OR <u>day of use</u>. System locks out after 24 hours until controls are performed.
- B. Additionally controls:
 - Must be run when a new box of strips is opened.
 - Must be run if a strip container is left opened.
 - Must be run if strips were incorrectly stored.
 - Must be run if there is a question about a patient's result.
 - Must be run if the meter was dropped or to check system performance.
- C. Control solution is stable for 3 months once bottle is opened. WRITE THE NEW DATE OF EXPIRATION ON THE VIAL LABEL OR IF THE EXPIRATION ON THE VIAL OUTDATES BEFORE THE 3 MONTHS, <u>USE WHICH EVER COMES FIRST</u>.

VIII. ACCU-CHEK INFORM II GLUCOSE TEST

- A. Remove meter from the base Unit: Press Purple button
 - 1. Wait for "Performing Self Checks" message to complete its process.
 - 2. Control testing must be performed daily, at a minimum (see above conditions that warrant additional control testing).
- B. Scan your ID badge (operator ID)
- C. TO PERFORM CONTROL TEST:
 - 1. Select "Control Test" on the screen.
 - 2. Choose Level 1 (Low).

A. I OLICI AND INCOM	mond
ose Testing*	
Manual: Lab- Point of Care	
Effective Date: 8/1/2018	
	ose Testing* Manual: Lab- Point of Care

- 3. Scan the Low control solution barcode at the prompt.
- 4. Scan the strips barcode at the prompt.
- 5. Insert the Glucose strip with the yellow window of the strip pointing out from the meter and the gold electrode facing inward.
- 6. After gently mixing the control, open cap, WIPE the tip with a lint free wipe.
- 7. Squeeze bottle of solution until a tiny drop forms--touch drop to the front edge of the yellow window of the test strip.
- 8. WIPE the tip of the bottle with a lint-free wipe, then cap tightly. The result appears in the display. Remove and discard used test strip.
- 9. Repeat steps 1 7 for Level 2 (High)
- 10. The acceptable ranges are scanned into the glucometer with each lot number AND the ranges are found on the side of the test strips.
- 11. In the case that Control Results are NOT within the acceptable range
 - a. You may not be doing the test correctly; repeat the test.
 - b. The test strip may be damaged from exposure to very high or low temperature or exposed to increased humidity. Open a fresh unexposed vial.
 - c. Check the expiration date on the vials of test strips and control solutions. If either is out of date- TOSS- and repeat testing with in-date materials.
 - d. Be sure the glucose control solution you are using is clear blue in color. Do not use a cloudy solution.

Control results must be within the defined acceptable ranges before patient testing is allowed. The instrument indicates a pass or fail.

- D. TO PERFORM PATIENT TESTING: Carry meter to patient room or area for testing and assemble supplies.
 - 1. Prepare the patient, with the meter on
 - Choose patient test, scan the patient's ID bracelet, the visit number populates the patient ID, OR enter the patients visit, or medical record number, or 911 (see section XII about 911 use) manually.
 - 3. Verify the patient ID, and press the check button
 - 4. Scan the test strip barcodes at the prompt
 - 5. Insert the test strip with the yellow window of the strip pointing out from the meter and the gold electrode facing inward
 - 6. Follow the instructions from section V to appropriately collect a patient specimen.
 - 7. When prompted and after wiping the first blood droplet, apply the second droplet to the front edge of the yellow window of the test strip.
 - 8. STAT FUNCTION <u>IN EXTREME EMERGENCY SITUATIONS, YOU CAN BYPASS THE CONTROLS.</u> Testing personnel must follow-up patient testing with controls as soon as patient care allows to verify instrument performance.

IX. RESULT REVIEW

NORTHERN INYO HOSPITAL

	A. TOHET AND TROUBDORD
Title: Point of Care Accu-Chek Blood Gluco	ose Testing*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics, PACU, Perinatal	
Source: POC Coordinator	Effective Date: 8/1/2018

- A. All patient and control results are stored in the Accu-Chek meter. The lab will download all results monthly into the Roche RALS Computer, print them and store them for a minimum of 6 years.
- B. To access stored results, turn the meter on, press the arrow, scan your operator ID badge, select **REVIEW RESULT** button
 - 1. Press Patient or QC
 - 2. Use arrow key up and down to find needed information

X. RESULT MANAGEMENT

A. GENERAL PROCEDURE

- 1. Record the glucose result in the patient's chart as instructed by your department.
- 2. All results and QC data are stored in the lab's RALS notebook and printed and kept for a minimum of 3 6 years.

XI. CRITICAL VALUE

The critical value cutoffs are included in the table below that list the glucose ranges. Tests outside the meter's established reference range (normal glucose range) will be displayed in numeric result and an alert prompt will be displayed. Tests outside the meter's linearity will be displayed as a text result and an alert prompt will be displayed.

All critical results MUST be:

A CONSTRUCTION OF

- 1. Verified (see section XI., A-B.)
- 2. Communicated to the provider
- AND

3. Both actions must be documented on the Accu-Chek by use of the comment function

Patient Age	Normal Glucose Range	Critical Values
Newborn (birth until hospital discharge)	45-70 mg/dl	<30 ->150 mg/dl
After newborn discharge to 1 year	45-90 mg/dl	<40 - >400 mg/dl
1 year to 2 years	60-100 mg/dl	<50 - >400 mg/dl
>2 years	75-105 mg/dl	<50 - >400 mg/dl

A. Verification of initial critical value

1. All **initial critical high values** obtained by finger- or heel stick that meet the crucial cut-offs must be **verified by a peripheral venous draw** (Order is "critical glucose follow-up," but any chemistry test ordered by a provider that includes glucose is acceptable) which will be confirmed on the laboratory chemistry analyzer. **RNs do not require a**

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	A. IOLICI MIDIROCEDORE
Title: Point of Care Accu-Chek Blood Gluco	ose Testing*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics, PACU, Perinatal	
Source: POC Coordinator	Effective Date: 8/1/2018

physician to order the follow-up test as the reflex test is part of the initial order. Critical Glucose follow-up tests should be considered STAT and should be collected as soon as possible. Accuchek Inform II should not be used for continued patient testing if verification results do not correlate well enough to demonstrate clinical utility.

2. All **initial critical low values** obtained by finger- or heel stick that meet the crucial cut-offs must be **verified by repeat finger or heel stick**. Please see department specific policy "Newborn Blood Glucose Monitoring" for critical low results in infants.

B. Verification of repeat critical values on same visit

1. If a patient has had a critical glucose by finger- or heel stick that has been verified by lab draw, the provider may decide to not repeat testing on subsequent events as the patient has been shown to be unstable.

Note: Notify the provider of critical results immediately.

C. Comments

The following comments must be added to the patient's result at the time of testing for **EVERY** critical result (if one test is repeated immediately to verify a result, comments need only be used for one of the two results).

a. Test repeated OR Lab draw to follow OR known critical

b. Will inform MD MD informed

Note: A total of 3 comments may be added. If desired, touch the "cloud" to enter your own comment via keypad.

D. Reportable range

The analytical measuring range of the meter is from 10-600 mg/dL Any result that reads "HI" or "LO" is a CRITICAL RESULT and must always be verified with a lab draw immediately. (The message, "HI" means greater than 600 mg/dl or and the message "LO" means less than 10 mg/dl).

XII. 911 RESULT POLICY --- New Section

- 1. In emergency situations when no patient wristband is available, testing personnel may use "911" as the patient identifier. It is inappropriate to use "911" more than once on the same patient unless an initial critical blood glucose result has to be verified by repeat.
- 2. Testing personnel will immediately log Accu-Chek results in the patient's electronic chart, in the presence of the patient.
- 3. <u>As soon as</u> a patient has a functioning Visit number and labels are available, testing personnel will reconcile the "911" patient result with the patient's Visit number by placing a patient label or by handwriting Patient Name, Date of Birth, Visit number and/or MR number on the "ACCUCHEK 911 Log" sheet.
- 4. Next to the patient ID, testing staff will log the date and time of service, blood glucose result, and initials.

NORTHERN INYO HOSPITAL

	A, FOLICI AND I KOCEDOKE
Title: Point of Care Accu-Chek Blood Gluc	ose Testing*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics, PACU, Perinatal	
Source: POC Coordinator	Effective Date: 8/1/2018

- 5. It is inappropriate to delay the use of the 911 log to reconcile the patient identifiers <u>any longer</u> than is absolutely necessary.
- 6. The log will be kept close to the Accu-Chek docking station in each department.
- Completed logs will be reviewed by the POCT coordinator or designee. They will be kept together with the QC data and patient report print outs in the POC department for a minimum of 3 6 years.

XIII. PROCEDURAL NOTES

- A. Test Strips and Controls for Accu-Chek Inform II are stocked by the POC department
- B. All other supplies must be ordered through purchasing department
- C. Troubleshooting the instrument is performed by the POC team, and if necessary the manufacturer, Roche

XIV. MAINTENANCE CONSISTS OF CLEANING AND DISINFECTING

- A. Make sure the system is turned OFF before cleaning and is sitting on a level surface. Use a soft cloth that is damp with water to remove blood or other visible organic matter. Disinfecting is accomplished with CloroxTM Germicidal Disposable Wipes (EPA reg. No. 67619). Squeeze out excess liquid, wipe surfaces three times horizontally and three times vertically and carefully wipe around the test strip port area (making sure no liquid enters port area). Allow the meter to be damp for 3 minutes. (The manufacturer suggests only 1 disinfectant be used as using more than one disinfectant interchangeably has not been evaluated.) Thoroughly dry after cleaning and disinfectants to be acceptable in emergency situations when supply chain shortages make obtaining CloroxTM Germicidal Disposable Wipes difficult. In such circumstances, the Point of Care Team will coordinate with Roche and NIHD nursing staff to ensure acceptable alternative products are available. See Roche Customer Letter TP-00960 for reference.
- B. The following parts of the meter and system components may be cleaned and disinfected:
 - 1. The area around the test strip port
 - 2. Avoid getting liquid into the test strip port.
 - 3. The meter display (touchscreen)
 - 4. The meter housing (entire meter surface)
 - 5. Do not clean or disinfect the meter while performing a blood glucose or control test.
 - 6. **Do not** spray anything onto the meter.
 - 7. Do not immerse the meter in liquid.
 - 8. Allow the instrument to be thoroughly dry before use.

XV. LIMITATIONS

- Hematocrit should be between 10-65%.
- Lipemic samples (triglycerides) in excess of 1800 mg/dl may produce elevated results.
- Blood concentrations of galactose >15 mg/dl will cause overestimation of blood glucose results.

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cose Testing*	
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- Intravenous administration of ascorbic acid which results in blood concentrations of ascorbic acid >3 mg/dl will cause overestimation of blood glucose results.
- If peripheral circulation is impaired, collection of capillary blood from the approved sample sites is not advised as the results might not be a true reflection of the physiological blood glucose level. This may apply in the following circumstances: severe dehydration as a result of diabetic decompensated heart failure NYHA Class IV, or peripheral arterial occlusive disease.
- The performance of this system has not been evaluated in the critically ill.

XVI. REFERENCES

- 1. Accu-Chek Inform II Operator's Manual 03-2013
- 2. Roche Customer Letter TP-00960 5/8/2020

XVII. CROSS REFERENCES P&P

1. Newborn Blood Glucose Monitoring

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Approval	10 Tower	Date
Medical Director of the Laboratory		1/30/18
CCOC		2/26/18
Emergency Medical Care Committee		3/14/18
Medical Services Committee	A	4/26/18
Peri/Peds Committee	(Bridges)	6/22/18
Medical Executive Committee	A CARLES	7/9/18
Board of Directors	a. Bby	7/18/18
Last Board of Directors Review		

Developed: 3/16 Reviewed: Lab 3/17, Board of Directors 4/17 Revised: 01/18, 6/18, 8/20 Supersedes: Point of Care Accu-Chek Blood Glucose Testing Version 2

Title: Point of Care HemoCue Hb 201+ H	emoglobin Testing*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator	Effective Date: 05/16/2017	

I. INTENDED USE

The HemoCue Hb 201+ System is used for the quantitative determination of hemoglobin in blood using a specially designed analyzer, HemoCue HB 201+, and specially designed HemoCue Hb 201 microcuvettes.

The quantitative hemoglobin determination is indicated as a general fundamental test in acute as well as elective care. The test is used in assessing the status of a patient in such clinical situations as hemorrhage, hemolysis, dehydration, and other shifts in plasma volume—and for verifying the results of transfusion or treatment of other deficiency states such as malnutrition. The assay of hemoglobin is also used as part of a general health screen e.g. for prospective blood donors and in the assessment of womens' and childrens' health.

II. PRINCIPLE

The hemoglobin concentration in blood is determined as azidemethemoglobin utilizing a microcuvette with a dry reagent system and a dual wavelength photometer. The erythrocyte membranes are disintegrated by sodium deoxycholate, releasing the hemoglobin. Sodium nitrite converts the hemoglobin iron from the ferrous to the ferric state to form methemoglobin, which then combines with sodium azide to form azidemethemoglobin. Measurements are taken at 570 nm and 880 nm; the latter to correct for turbidity.

III. MATERIALS, EQUIPMENT AND REAGENTS

A. Reagents and Equipment

- HemoCue Hb 201+ Analyzer
- HemoCue Hb 201 microcuvettes (store at room temperature)
- Liquid controls (store according to manufacturer's specifications)
- Blood lancets, needles, syringes, blood-collection tubes
- Gloves
- Disinfecting solution
- Lint-free tissue such as Kimtech delicate task wipes
- Hydrophobic material such as parafilm
- HemoCue cleaner or alcohol and cotton swabs
- B. Storage and Stability
 - HemoCue Hb 201+ Analyzers are stored at room temperature 15 to 30°C (59-86°F).
 - HemoCue Hb 201 microcuvettes are stored at room temperature 15 to 30°C (59-86°F).
 - HemoCue Hb 201 microcuvettes are stable two (2) years from the date of manufacture.

IV. QUALIFIED PERFORMING STAFF

Any staff designated by their job description to perform CLIA waived testing and who have been trained, oriented, and deemed competent thereafter, through annual assessment by the medical director or the qualified designees in the use and maintenance of the HemoCue instrument.

V. PROCEDURE

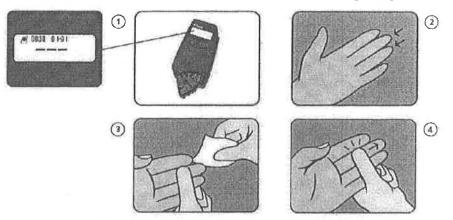
A. Start up Procedure

Title: Point of Care HemoCue Hb 201+	Hemoglobin Testing*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator	Effective Date: 05/16/2017	

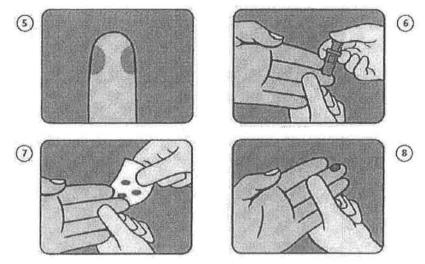
- 1. Pull the cuvette holder out to the loading position. Press and hold the left button until the display is activated (all symbols appear on the display).
- 2. The display shows the version number of the program, after which it will show an hourglass symbol and 'Hb'. During this time, the analyzer will automatically verify the performance of the optronic unit by performing an automatic internal electronic "SELFTEST".
- 3. After 10 seconds, the display will show 3 flashing dashes and the HemoCue symbol. This indicates that the analyzer has passed the SELFTEST and is ready for use. If the SELFTEST fails, an error code will be displayed.
- B. Quality Control
 - 1. The Hemocue Hb 201+ analyzer has an internal electronic SELFTEST. Every time the analyzer is turned on, it will automatically verify the performance of the optronic unit of the analyzer. This test is performed every second hour if the analyzer remains switched on.
 - 2. Liquid Quality Control
 - a. Two (2) levels of liquid external controls are ordered from e.g. R&D Systems and have established values. Both levels of control should be run each day that the Rural Health fire Clinic (RHC) and Women's Health Clinic (WHC) are opened.
 - b. The analyzer should be in the 'ready' mode prior to filling the cuvette.
 - c. Dispense a drop of control onto parafilm and follow steps i-p of capillary testing section.
 - d. Record the results on a quality control log.
 - e. If the results do not fall within the established range: repeat. If still out, clean monitor and retest with another individual performing the QC. Record on QC Log and any problems on Out-of Range Comment Log. If still out, open new QC materials and repeat. If these steps do not resolve the issue, contact the POC team in the lab for further assistance.
- C. Patient and Specimen Testing
 - 1. Capillary Testing Finger
 - a. To perform a test using capillary blood, the cuvette holder should be in its loading position. The display will show three flashing dashes and the HemoCue symbol.
 - b. The hand should be **warm** and **relaxed**. Heating the hand with warm water, or by some other means, is a good idea to increase the blood circulation. The patient's fingers should be straight but not tense, to avoid stasis. It is best to use the middle or ring finger for sampling, but fingers with rings should be avoided due to the chance of decreased circulation.
 - c. Remove a cuvette from the individually wrapped package. Cuvette must be filled within 3 minutes of being removed from the package. Always avoid touching the optical eye.
 - d. Clean the finger with alcohol and allow it to air dry completely.

Title: Point of Care HemoCue Hb 201+ He	emoglobin Testing*
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care
Source: POC Lab Coordinator	Effective Date: 05/16/2017

e. Using **gentle** pressure, rock your thumb from the top of the patient's distal knuckle to the fingertip. This stimulates the blood flow towards the sampling point.



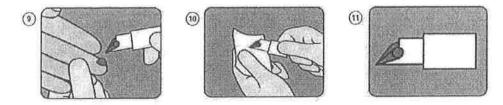
- f. Press the lancet firmly against the finger prior to activating the lancet to aid in obtaining a good sample.
- g. While maintaining gentle pressure on the tip of the finger, perform the stick off-center on the fingertip. Discard the lancet in a sharps container.
- h. Using dry gauze, wipe away the first two (2) or three (3) drops of blood, applying light pressure as needed again until another drop of blood appears. This stimulates blood flow and lessens the likelihood of a dilutional effect. Avoid 'milking' the finger.



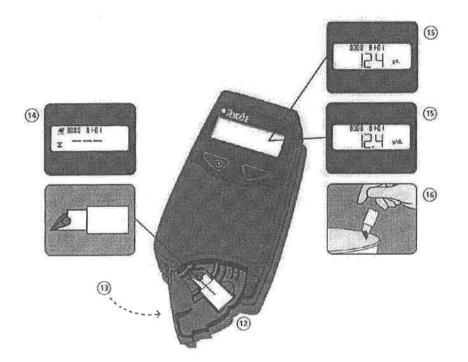
i. Make sure that the drop of blood is big enough to fill the cuvette completely. Hold the cuvette opposite the filling end and introduce the cuvette tip into the middle of the drop of blood. Allow the cuvette to fill upward from the tip in one continuous process. Do not refill a partially filled cuvette.

Title: Point of Care HemoCue Hb 201+	- Hemoglobin Testing*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator	Effective Date: 05/16/2017	

j. Wipe off any excess blood from the outside of the cuvette using a Kimtech wipe, taking care not to touch the open end of the cuvette.



- k. Visually inspect the cuvette for air bubbles in the optical eye. If bubbles are present, the cuvette should be discarded and a new sample taken for analysis.
- 1. The filled cuvette should be analyzed immediately. No more than 10 minutes should pass after collection. Place the filled cuvette into the cuvette holder and gently slide the holder into the measuring position.
- m. During the measurement, the hourglass symbol and three fixed dashes will be shown on the display.
- n. The result will be displayed within **15 to 60 seconds** and will remain on the display as long as the cuvette holder is in the measuring position. If ERROR appears, recollect and run again. Refer to pg 19, "Troubleshooting Guide," of the HemoCue manual for further assistance.



Title: Point of Care HemoCue Hb 201+	Hemoglobin Testing*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator Effective Date: 05/16/2017		

- o. Record the result along with patient name and date of birth on log sheet prior to transferring result to patient's medical record
- p. Pull the cuvette holder out to the loading position. Remove the cuvette and discard in sharps container.
- 2. Venous or Arterial Specimen from Vacuum Tubes
 - a. Obtain a specimen according to NIHD collection policies for venous or arterial specimens. Use fresh, well mixed, anticoagulated blood specimens.
 - b. Mix the sample on a mechanical mixer for at least 2 minutes or gently invert by hand 8 to 10 times.
 - c. Dispense a drop of blood onto parafilm.
 - d. Proceed as in Steps 9-16 of the Capillary Testing Finger section.
- D. Reporting and Interpreting Results

Record the result along with patient name and date of birth on log sheet prior to transferring result to patient's medical record.

- 1. Reference ranges are as follows and are adjusted to local altitudes:
 - Newborns (0-21 days): 13.5-21.0 g/dL
 - Infants/Children (21 days to 6 years): 10.0-15.0 g/dL
 - Children (6-12 years): 10.0-15.0 g/dL
 - 12-18 years female: 11.0-15.0 g/dL
 - 12-18 years male: 11.0-16.0 g/dL
 - Adult male: 14.0-18.0 g/dL
 - Adult female: 13.0-17.0 g/dL
- 2. Critical values
 - Results of ≤7.0 g/dL or ≥20.0 g/dL, repeat test and notify provider immediately. If the result is the same, a confirmatory hemogram must be performed by NIHD lab.
 - Results above 25.6 g/dL will be displayed as HHH. **Repeat test**. If the result is the same, a **confirmatory hemogram** must be performed by NIHD lab.
- E. Maintenance
 - 1. The cuvette holder should be cleaned each day of use using HemoCue cuvette cleaner
 - 2. Check that the analyzer is turned off (the display should be blank).
 - 3. Pull the cuvette holder out to the loading position. Using a pointed object or your fingertip, carefully press the small catch in the upper right hand corner of the cuvette holder.
 - 4. While pressing the catch, carefully rotate the cuvette holder to the left as far as possible

Title: Point of Care HemoCue Hb 201+	Hemoglobin Testing*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator	Effective Date: 05/16/2017	

- 5. Using a HemoCue cleaner, push the cleaner into the analyzer and move back and forth from side to side five to ten times. If the swab is soiled, repeat using a new swab(s) until a new swab is no longer soiled.
- 6. Clean the cuvette holder and allow to dry completely (**15 minutes** for both the optronic unit and the cuvette holder) before replacing it in the analyzer.
- 7. The exterior of the photometer may be cleaned as necessary with alcohol.
- 8. If HemoCue cleaner is not available, follow steps 1-7 using a cotton tipped swab(s) moistened with alcohol. Squeeze out the excess alcohol prior to use.



VI. PROCEDURAL NOTES

- Microcuvettes are stored at room temperature away from any direct heat source. The individually packaged microcuvettes are stable until the expiration date printed on each package.
- Only use control solution that is assayed for the HemoCue Hb 201+.

VII. LIMITATIONS OF THE PROCEDURE

• The measuring range of the HemoCue system is 0-25.6 g/dL. Values above 25.6 g/dL will be displayed as the non-numerical value of 'HHH' and must be confirmed by the NIH lab.

VIII. REFERENCES

- 1. HemoCue Hb 201+ Operating Manual (050523)
- 2. HemoCue Hb 201 Microcuvette Package Insert (050523)

Approval	Date
Medical Director of the Laboratory	3/22/16
CCOC	3/27/17

1.4

Title: Point of Care HemoCue Hb 201+	Hemoglobin Testing*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator Effective Date: 05/16/2017		

Medical Services Committee	3/23/17
Medical Executive Committee	4/4/17
Board of Directors	4/19/17
Last Board of Directors Review	

Developed: 3/16 Reviewed: Lab 3/17, Board of Directors 4/17, 6/2.0 Revised: Supersedes:

Title: Point of Care QuickVue Dipstick Strep	A Test*
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory
Source: POC POCT Coordinator CLS	Effective Date: 05/16/2017

I. **INTENDED USE**

The OuickVue Dipstick Strep A test is intended for the rapid, qualitative detection of group A Streptococcal antigen from throat swabs. The test is to be used to aid in the diagnosis of Group A Streptococcal infection.

II. PRINCIPLE

The QuickVue Dipstick Strep A test is a lateral-flow immunoassay using Quidel's patented antibody labeled particles. The test detects either viable or nonviable organisms directly from throat swabs within five minutes. MATERIALS, EQUIPMENT, AND REAGENTS A. Safety and protective Equipment Individually packaged dissicks

hygiana According to the NIH Infection Control Policy should be

followed when performing thy

III.

- Individually packaged dipsticks
- Gloves .
- . Extraction reagent A
- Extraction reagent B 0
- Extraction reagent B Sterile throat swabs, rayon tipped on plastic shafts 2. Wear suidable protective clothing: Tubes Positive control material Negative control material Amies gel duo swab for follow-up culture Mean bendling the content; of this kit and when performing retient collection .
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PROCEDURE IV.

B.

A. Internal quality control (IQC)

- 3. Dispose of any tasting materials in Sicharand disposed after use. 1. QuickVue Dipstick Strep A test provides three levels of internal procedural controls with each test run. For each patient specimen or External QC control tested, each level of IQC should be observed. No result should be considered valid if any IQC level does not pass.
 - a. The color level of the extraction reagent changes from clear to green as the reagents are mixed together. The color change is an internal extraction reagent control and is an indication that the reagents were mixed and functioning properly
 - b. The appearance of a blue control line is an internal control. The dipstick must absorb the proper amount of sample and the dipstick must be working properly for the blue control line to appear. Additionally, the appearance of the control line indicates that capillary flow occurred.
 - c. A clear background is an internal background negative control. If no interfering substances are in the sample and the dipstick is working properly, the background in the result area should be white to light pink within 5 minutes and not interfere with the reading of the test result.

B. Collection

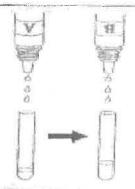
- 1. Collect throat swab specimens by standard clinical methods. Standard precautions and hand hygiene according to the NIH Infection Control Policy should be followed when performing any collection.
- 2. Depress the tongue with a tongue blade or spoon.
- 3. Use a sterile rayon tipped swab on solid plastic shaft to collect throat specimens.

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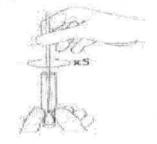
Title: Point of Care QuickVue Dipstick Strey	D A Test*
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory
Source: POC POCT Coordinator CLS	Effective Date: 05/16/2017

- 4. Taking care not to touch the tongue sides, or top of the mouth, rub the swab on the back of the throat, on the tonsils and in any other area where there is redness, inflammation, or pus.
- Process as soon as possible after collection. Swabs may be held in any clean, dry plastic tube or sleeve up to 72 hours at room temperature. Note: Use of charcoal or agar medium is not recommended.
- If test is negative, a culture is recommended. Consult with ordering provider. Using an Amies gel duo or single swab, repeat steps a-c. Return swab(s) to the provided Amies gel collection tube. Order BST and send to NIH Lab for culture.
- C. Assay procedure
 - 1. Gloves should be worn when handling patient specimens.
 - 2. Add **3 drops** of reagent A and **3 drops** of reagent B into a clean tube. Make sure to hold bottles vertically to form complete drops. This solution should turn **GREEN**.

Note: Should reagent B appear green prior to being mixed with reagent A, do NOT use. Obtain a new QuikVue Strep A kit to run test. Contact Lab POC team for follow up. POC team will contact technical support, per manufacturer's recommendations.

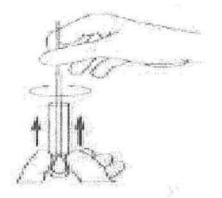


3. Immediately add the patient swab sample to the tube. Squeeze the bottom of the tube so the swab head is compressed. Rotate the swab a minimum of **5 times**.



- 4. Keep swab in tube for one minute.
- 5. Express all liquid from the swab against the inside of the tube. Squeeze the swab firmly as it is removed from the tube. Discard the swab.

Title: Point of Care QuickVue Dipstick Strep	A Test*
Scope: Lab, Outpatient Clinics Manual: Lab- Point of Care, Laboratory	
Source: POC POCT Coordinator CLS	Effective Date: 05/16/2017



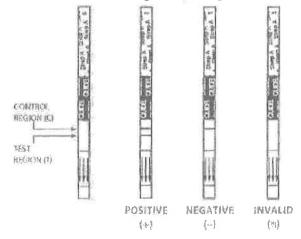
6. Remove the dipstick from the foil pouch. Place the dipstick into the tube with the arrows of the dipstick pointing down. Do NOT handle or move the dipstick until the test is complete and ready for reading.



- 7. Read the result at 5 minutes. Some positive results may appear sooner.
- D. External QC procedure
 - 1. External QC should be run once for each untrained operator, once for each new shipment of kits (or once per lot number, if multiple lots are received at one time) and monthly for the kit lot number in use to comply with regulatory requirements.
 - 2. Follow the steps in C.1-C.3.
 - 3. Vigorously mix the positive control bottle. Add one drop of the control to the tube.
 - 4. Place a clean swab in the tube.
 - 5. Follow steps C.4-C.7.
- E. Interpreting results
 - 1. **Positive result**: Any pink to purple test line along with any shade of a blue procedural control line is a positive result for the detection of Group A Streptococcus antigen.
 - 2. Negative result: A blue procedural control line and no pink test line is a presumptive negative result.

Title: Point of Care QuickVue Dipstick Strep	A Test*
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory
Source: POC POCT Coordinator CLS	Effective Date: 05/16/2017

3. Invalid result: The test result is invalid if a blue control line is not visible at 5 minutes. If this occurs, retest using a new sample and a new dipstick.



V. LIMITATIONS OF THE PROCEDURE

- A. The contents of this kit are for use in the qualitative detection of Group A Streptococcal antigen from throat swab specimens. Failure to follow the test procedure and interpretation of test results may adversely affect performance and/or produce invalid results.
- B. The test detects both viable and nonviable Group A Streptococci and may yield a positive result in the absence of living organisms.
- C. Respiratory infections, including pharyngitis, can be caused by Streptococcus from serogroups other than Group A as well as other pathogens.
- D. The QuickVue Dipstick Strep A test will not differentiate asymptomatic carriers of Group A Streptococcus from those exhibiting Streptococcal infection
- E. Test results must always be evaluated with other data available to the provider. A negative test result might occur if the level of extracted antigen in a sample is below the sensitivity of the test or if a poor quality specimen is obtained. Per Joint Commission recommendations, an age specific correlation study was performed on negative rapid strep tests. The correlation study demonstrated 100% correlation of negative rapid strep tests with cultures resulting as negative for Strep A. As a result of this study, additional follow-up testing of negative rapid strep tests using the culture method is not mandatory. The ordering provider has the sole discretion, after accounting for other testing results and clinical presentation, to determine if a follow up culture is necessary.

VI. REFERENCES

1. QuickVue Dipstick Strep A package insert, 1053407; 01/15

Approval	Date
CCOC	06-24-19
Medical Services Committee	07-19
Medical Executive Committee	08-19
Board of Directors	08-22-19

Title: Point of Care QuickVue Dipstick Strep	DA Test*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory	
Source: POC POCT Coordinator CLS	Effective Date: 05/16/2017	

Last Board of Directors Review

08-22-19

Developed: 3/16 Reviewed: 08-22-2019 Revised: 5/19, 8, 20 Supersedes: POC Dip Shop A Version 3

Title: Point of Care QuickVue hCG Urin	ne Test*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator	Effective Date: 05/16/2017	R.S. M. C.R.

I. INTENDED USE

The QuickVue hCG urine test is a CLIA waived one-step immunoassay intended for the qualitative detection of human chorionic gonadotropin (hCG) in urine for the early detection of pregnancy. The test is intended for use by healthcare professionals.

II. PRINCIPLE

Human chorionic gonadotropin is a hormone produced by the placenta shortly after implantation. Since hCG is present in the urine of pregnant women, it is an excellent marker for confirming pregnancy.

The QuickVue test uses a monoclonal antibody specific to the beta subunit of hCG in a single-step technology to accurately detect hCG.

I. MATERIALS, EQUIPMENT AND REAGENTS

- 25 individually wrapped test cassettes containing murine monoclonal anti-hCG antibody
- 25 disposable pipettes
- 1 package insert
- 1 procedure card
- Sterile collection cups
- Gloves
- Watch or clock that measures minutes
- External urine controls

II. STORAGE AND STABILITY

- A. Kits should be kept at room temperature (15-30°C) out of direct sunlight. Kits are stable until the expiration date printed on the outer box carton.
- B. Specimens may be kept at room temperature for 8 hours or refrigerated at 2 to 8°C for up to 72 hours. Samples may be frozen once at -20°C or below one time. If frozen, mix after thawing. Do not refreeze.

III. PROCEDURE

A. Internal quality control (IQC)

The QuickVue hCG urine test provides several levels of internal procedural controls with each test run. These should be documented with each specimen tested.

- 1. The appearance of a blue procedural control line is an internal positive control. This indicates that sufficient sample fluid was added for capillary flow to occur and the correct procedural technique was used. If this line does not develop, the test result is considered invalid.
- 2. A clear background in the test result window is an internal background negative control. If the test has been performed correctly, the background should be white to light pink within 3 minutes and not interfere with the reading of that test result.

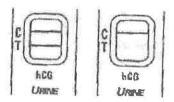
B. Collection

Collect urine specimens in sterile containers. First morning specimens generally contain the highest concentrations of hCG and are recommended for early detection of pregnancy. However, any urine specimen is suitable for testing.

1

Title: Point of Care QuickVue hCG Ur.	ne Test*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care	
Source: POC Lab Coordinator	Effective Date: 05/16/2017	

- C. Assay procedure
 - 1. Gloves should be worn when handling patient specimens.
 - 2. Remove the QuickVue test cassette from the foil pouch just before use and place it on a clean, dry, level surface.
 - 3. Using one of the disposable pipettes supplied, collect sample and add 3 drops of urine to the round sample well on the test cassette. The test cassette should not be handled or moved until the test is complete and ready for reading.
 - 4. Wait 3 minutes and read.
 - 5. Following the NIHD Urine Dipstick Chemistries Policy and Procedure, determine the specimen's specific gravity and record the results.
- D. External QC procedure
 - 1. External QC should be run once for each new shipment of kits or per new lot and with any External QC should be full once for each new simplicit of day of the fast lot number
 Mix controls carefully. in use to comply with regulatory
 Follow the steps in C.1-C.5. requirement.
- E. Interpreting results
 - 1. Positive result: Any pink to red test line (T) along with a blue control line (C) is a positive result for the detection of hCG.



Title: Point of Care QuickVue hCG Urine Test*	
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care
Source: POC Lab Coordinator	Effective Date: 05/16/2017

2. Negative result: A blue procedural control line and no pink test line is a negative result.



3. **Invalid result**: The test is invalid if a blue control line (C) is not visible at 3 minutes. If this happens, retest using a new test cassette and new sample from the patient specimen. If still no control line appears, contact the Lab POC team for assistance.



IV. LIMITATIONS OF THE PROCEDURE

- A. The contents of this kit are for use in the qualitative detection of hCG in urine.
- B. Test results must always be evaluated with other data available to the physician.
- C. While pregnancy is the most likely reason for the presence of hCG in urine, elevated hCG concentrations unrelated to pregnancy have been reported in some patients. Conditions other than normal pregnancy may be associated with detectable hCG, including, for example, ectopic pregnancy or molar pregnancy. Patients with trophoblastic and nontrophoblastic disease may have elevated hCG levels, therefore, the possibility of hCG secreting neoplasms should be eliminated prior to the diagnosis of pregnancy.
- D. hCG may remain detectable for a few days to several weeks after delivery, abortion, natural termination or hCG injections.
- E. Abnormal pregnancies cannot be diagnosed by qualitative hCG results. The above conditions should be ruled out when diagnosing pregnancy.
- F. Early pregnancy associated with a low level of hCG may show color development after the 3 minute procedure time. If a negative result is obtained but pregnancy is suspected, hCG levels may be too low or urine may be too dilute for detection. A low specific gravity may indicate that hCG levels are too dilute to detect. Another specimen, preferably a first morning void, should be collected after 48-72 hours and tested. If waiting 48 hours is not medically advisable, the test result should be confirmed with a quantitative hCG test.

V. REFERENCES

- 1. QuickVue hCG Urine Test package insert, 20109 Quidel Corporation, 6/14
- 2. Biosafety in Microbiological and Biomedical Laboratories, 4th Edition. U.S. Department of Health and Human Services, CDD, NIH Washington, DC (1999)
- Saxena B.B. Endocrinology of Pregnancy, 3rd ed., Fuchs F., Klopper A., Eds., Harper and Row, Philadelphia, PA 1983; 50-72

Title: Point of Care QuickVue hCG Urine T	est*
Scope: Lab, Outpatient Clinics	Manual: Lab- Point of Care
Source: POC Lab Coordinator	Effective Date: 05/16/2017

- 4. Kreid A.F., In Clinical diagnosis and Management by Laboratory Methods, Vol. 1, 16th ed., Henry J.B., Ed., W.B. Saunders Co., Philadelphia, 1979, pp 680-692
- 5. Wide L., Gemzell C.A. Acta Endocrinol., 1960; 35:261-267
- 6. Steier J.A., Bergsjo P., Myking O.L. Obstet. Gynecol., 1984; 64:391-394
- Wilcox A.J., Weinberg C.R., O'Connor J.F., Baird D.D., Schlatterer J.P., Canfleld R.E., Armstrong E.G., Nisula B.C. Incidence of Early Loss of Pregnancy, N Eng J Med 1988; 319: 189-194
- 8. Lenton E.A., Neal L.M., and Sulaiman R. Fertility and Sterility, 1982; 37, 773-778
- 9. McCready J., Braunstein G.D., Helm D., Wade M.E. Clin Chem 1987; 24:1958-1961

VI. CROSS REFERENCES

1. NIHD Point of Care Manual, Urine Dipstick Chemistries - Chemstrip 10UA

Approval	Date
Medical Director of the Laboratory	6/13/16
CCOC	3/27/17
Medical Services Committee	3/23/17
Medical Executive Committee	4/4/17
Board of Directors	4/19/17
Last Board of Directors Review	

Developed: 3/16 Reviewed: Lab 3/17, Board of Directors 4/17, 6/20 Revised: Supersedes:

Title: Point of Care QuickVue Influenza A+I	3 Test
Scope: Outpatient Clinics	Manual: Lab- Point of Care
Source: Lab Coordinator	Effective Date: 10/01/2018

I. **INTENDED USE**

The QuickVue Influenza A+B test is intended for the rapid, qualitative detection of influenza type A and type B antigens directly in nasal swab and nasopharyngeal swab specimens from symptomatic patients. The test is to be used as an aid in the rapid differential diagnosis of acute influenza type A and type B viral infection.

П. PRINCIPLE

The QuickVue Influenza A+B test is a lateral-flow immunoassay. It involves the extraction of influenza A and B viral antigens and uses highly sensitive monoclonal antibodies for detection that are specific for influenza antigens. The test is specific to influenza types A and B antigens with no known cross-reactivity to normal flora or other known respiratory pathogens. V. Spacimen Colladion

A. Porsonal Proto Sion Equipment

I Droplat Precipitions should be

glaves, and surgiced masks should be worn during specimen collection

utilized when collading masal or

MATERIALS, EQUIPMENT AND REAGENTS III.

- Individually packaged test strips
- Reagent solution 0
- Reagent tubes
- Disposable pipettes
- Sterile nasal swabs
- massipheringed spectruces from partients suspected of having an acuta influence infection. · Positive control material (type A and type B swab) 2. Eye protection / face shire 1.
- Negative control material
- Gloves (not provided in kit) •
- Timer (not provided in kit) .

KIT STORAGE AND SPECIMEN STABILITY IV.

- A. Kits should be kept at room temperature (15-30°C) out of direct sunlight. Kits are stable until the expiration date printed on the outer box carton.
- B. Specimen should be tested as soon as possible after collection. Storage of sample in a clean, dry and closed container is possible for 8 hours between 2-25°C.

Note: QuickVue Influenza A+B test performance testing swab samples diluted in transport media has NOT been evaluated and established in clinical studies.

v. SPECIMEN COLLECTION

A. Nasal Swab Sample

- For optimal test performance with nasal swab specimen, use the swabs supplied in the kit.
- It is important to obtain as much secretion as possible. NI
 - 1. Insert the sterile swab into the nostril that presents the most secretion under visual inspection.
 - 2. Using gentle rotation, push the swab until resistance is met.
 - 3. Rotate the swab a few times against the nasal wall.
 - B. Nasopharyngeal Swab Sample
 - It is important to obtain as much secretion as possible.
 - 1. Carefully insert the sterile swab into the nostril that presents the most secretion under visual inspection.
 - 2. Keep the swab near the septum floor of the nose while gently pushing the swab into the posterior nasopharynx.

1

Title: Point of Care QuickVue Influenza A+H	3 Test
Scope: Outpatient Clinics	Manual: Lab- Point of Care
Source: Lab Coordinator	Effective Date: 10/01/2018

3. Rotate the swab several times.

VI. PROCEDURE

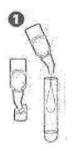
- A. Internal Quality Control (IQC)
 - QuickVue Influenza A+B test comes with built-in procedural control features. For each patient specimen or external quality control swab tested, both levels of IQC should be observed and documented. No result should be considered valid if any IQC level does not pass.
 - a. **Build-in positive control**: The appearance of a blue control line is an internal control. The appearance of the control line indicates that sufficient capillary flow occurred and that the functional integrity of the test strip was maintained.
 - b. **Build-in negative control:** A clear background is an internal background negative control. If no interfering substances are in the sample and the dipstick is working properly, the background in the result area should be white to light pink within 10 minutes and not interfere with the reading of the test result.
- B. External Quality Control (EQC)
 - 1. Positive and negative controls should be run once for each untrained operator, once for each new shipment of kits (or once per lot number, if multiple lots are received at one time) and monthly for the kit lot number in use to comply with regulatory requirements.
 - 2. Follow the steps described in C.1. to C.10.

Note: External positive and negative control swabs are supplied in the kit and should be tested using the nasal/nasopharyngeal swab test procedure.

C. Assay Procedure

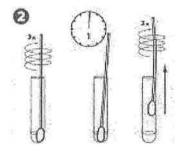
Gloves should be worn and standard precautions should be observed when handling patient specimens.

- 1. Dispense all of the reagent solution into the reagent tube.
- 2. Gently swirl the tube to dissolve its contents.



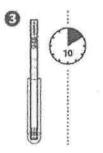
- 3. Place the patient swab with sample into the reagent tube.
- 4. Roll the swab at least 3 times while pressing the head against the bottom and side of the reagent tube.
- 5. Leave the swab in the reagent tube for 1 minute.
- 6. Roll the swab head against the inside of the reagent tube as you remove it.
- 7. Dispose of the used swab into biohazard waste containers.

Title: Point of Care QuickVue Influenza A+B Test	
Scope: Outpatient Clinics	Manual: Lab- Point of Care
Source: Lab Coordinator	Effective Date: 10/01/2018



8. Remove the dipstick from the foil pouch.

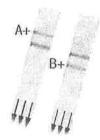
9. Place the dipstick into the reagent tube with the arrows of the test strip pointing down. **Note:** Do NOT handle or move the test strip until the test is complete and ready for reading.



10. Read the result at 10 minutes.

Note: Some positive results may appear sooner. Do NOT read result after 10 minutes.

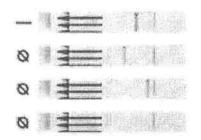
- D. Interpretation of Results
 - 1. **Positive result**: Any shade of a pink to red test line, either above or below the blue control line, **AND** the appearance of a blue procedural control line indicates a positive result for the presence of influenza A and/or B viral antigen.
 - a. If the red line is ABOVE the control line, the test results are positive for type A
 - b. If the red line is **BELOW** the control line, the test results are positive for type B



2. **Negative result**: A blue procedural control line and no pink to red test line is a presumptive negative result.

Note: A negative result does NOT exclude influenza viral infection. Negative results should be confirmed by cell culture if clinically indicated.

Title: Point of Care QuickVue Influenza A+	B Test
Scope: Outpatient Clinics	Manual: Lab- Point of Care
Source: Lab Coordinator	Effective Date: 10/01/2018



3. Invalid result: The test result is invalid if a blue control line is NOT visible at 10 minutes. The test result is equally invalid if the background color does not clear and it interferes with the reading of the test. If either occurs, retest using a new sample and a new test strip.

NOTE: Co-infections with influenza A and B is rare. QuickVue Influenza A+B Test "dual positive" clinical specimens should be re-tested. Repeatable influenza A and B "dual positive" results should be confirmed by viral culture or an FDA-cleared influenza A and B molecular assay BEFORE reporting results.

VII. LIMITATIONS OF THE PROCEDURE

- A. The contents of this kit are for use in the qualitative detection of influenza A and B antigen from nasal and nasopharyngeal swab specimens. Failure to follow the test procedure and interpretation of test results may adversely affect performance and/or produce invalid results.
- B. Negative test results do not rule out possible other non-influenza viral infections.
- C. Test results must always be evaluated with other data available to the provider. A negative test result might occur if the level of extracted antigen in a sample is below the sensitivity of the test or if a poor quality specimen is obtained. Additional follow-up testing using the culture method and/or molecular methods is recommended if the QuickVue test result is negative.
- D. Positive test results do not rule out co-infections with other pathogens nor do they identify specific influenza A virus subtypes.
- E. Children tend to shed virus more abundantly and for longer periods of time than adults. Therefore, testing specimens from adults will often yield lower sensitivities than testing specimens from children.

Note: Please refer to the package insert for a full list of test limitations

VIII. REFERENCES

1. QuickVue Influenza A+B package insert, 1350313EN00 (02/18)

Approval	Date
Medical Director of the Laboratory	7/16/18
CCOC	7/16/18
Medical Services Committee	7/26/18
Peri/Peds Commitee	8/17/18
Medical Executive Committee	9/5/18
Board of Directors	9/16/18
Last Board of Directors Review	

Title: Point of Care QuickVue Influenza A+	B Test
Scope: Outpatient Clinics	Manual: Lab- Point of Care
Source: Lab Coordinator	Effective Date: 10/01/2018

Developed: Reviewed: Revised: Supersedes:

Title: Provider-Performed Microscopy Co	ompetency*	
Scope: Perinatal, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory	
Source: POC Coordinator	Effective Date: 7/31/17	

I. PURPOSE

Centers for Medicare and Medicaid Services (CMS), and the State of California laboratory regulations require that all laboratories have on-going mechanisms to monitor accurate patient test management. Federal CLIA '88 regulations classify all provider-performed microscopy (PPM) as "moderately complex" testing. Therefore all individuals performing PPM, or overseeing PPM procedures (PPMP) performed by trainees, are required to successfully complete a periodic assessment and be credentialed and privileged by Northern Inyo Healthcare District (NIHD). This is to ensure that all providers are proficient in PPMP and reporting test results.

II. PROCEDURE

All testing providers are evaluated for competency on PPM including pre-analysis, analysis and postanalysis components by a colleague. The Point of care (POC) coordinator and department supervisor(s) will develop a program for competency assessment and acceptability standards based on The Joint Commission (TJC) requirements, procedure manuals, and departmental policies. Supervisors and managers will evaluate common group deficiencies, review current policies and procedures and take corrective action to improve performance.

A. Test Menu

Provider-performed microscopy includes the following 4 tests at NIHD:

- 1. Fern Test
- 2. KOH (potassium hydroxide) Preparation
- 3. Direct Wet Mount
- 4. Urine Sediment

B. Competency

For practitioners new to NIHD or newly requesting PPM privileges, successful initial competency testing must be followed by a 6 month and 12 month evaluation. After the first year, all practitioners will be evaluated annually or as needed.

- 1. Competency for PPM is assessed using all of the following six methods as required by CMS and TJC:
 - a. Direct observation of routine patient test performance, including patient preparation, specimen handling, processing and testing
 - b. Monitoring recording and reporting of test results
 - c. Review of worksheets, QC records and preventative maintenance records
 - d. Direct observation of performance of microscope maintenance and function checks
 - e. Assessment of test performance through testing external PT samples or testing previously analyzed specimens (blind testing)
 - f. Assessment of problem solving skills
- 2. NIHD's POC department utilizes an online competency challenge program hosted by the University of Washington to assess problem solving skills. A link to this program along with additional instructions on how to log into the program is sent via email by the POC team. There are approximately five questions and 80% of the questions must be answered correctly to pass
- 3. Independent performance with no to little additional support is considered successful
 - 1

Title: Provider-Performed Microscopy Cor	npetency*	
Scope: Perinatal, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory	
Source: POC Coordinator	Effective Date: 7/31/17	

- 4. Competency is assessed by a qualified colleague
- 5. Personnel qualified to observe and assess competency are providers fully credentialed and current on PPM competency assessment
- 6. Observed competency is documented on a competency checklist and filed in the POC department and kept for a minimum of 2 years; a copy of the document(s) is placed in employee personnel file

C. Proficiency testing

The POC department contracts with the Wisconsin State Laboratory of Hygiene (WSLH), a CMS approved proficiency testing program that meets regulatory requirements for variety and frequency of testing. Proficiency testing will be conducted bi-annually and consists of two images (paper and online version).

- 1. Proficiency samples are rotated among providers who perform patient testing
- 2. Testing personnel tests the proficiency samples the same way that patient samples are tested
- 3. The practitioners who perform the proficiency testing and the medical director of the laboratory sign attestations documenting that proficiency samples were tested in the same manner as patient specimens
- 4. Testing personnel reports proficiency sample results the same way that patient samples are reported
- 5. Proficiency records are kept for two years; proficiency performance evaluations are kept for 5 years
- 6. A failure is unsuccessful performance in an event and warrants an investigation using the "Proficiency Testing Checklist for Corrective Action"; the investigation is documented and records are kept for 5 years

III. CORRECTIVE ACTION

Reassessment of provider competency must occur when problems are identified with provider performance

A. Criteria for Remediation

Remedial actions are necessary for the following reasons:

- 1. When testing personnel fails an assigned proficiency test(s)
- 2. When deficiencies are being observed during competency assessment; this will be at the discretion of the observer
- 3. When deficiencies are being observed during routine patient testing; this will be at the discretion of the supervisor
- 4. When an individual fails to comply repeatedly with testing requirements
- 5. When testing staff is non-compliant with regulatory requirements after reasonable attempts of contact have been made by the supervisor and/or POC department
- B. Failure of online competency assessment modules
 - 1. One time failure: Practitioners are allowed to retake the module after one failure. The POC department will sent a notification via email allowing the practitioner to retake the exam.

Title: Provider-Performed Microscopy C	ompetency*	
Scope: Perinatal, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory	
Source: POC Coordinator	Effective Date: 7/31/17	

2. Repeat failure: On repeat failure, the practitioner must be mentored prior to being allowed to retake the examination a second time.

C. Mentoring

After determination that remediation is required, the following process will be initiated:

- 1. Department supervisor will be notified that individual will require mentoring and that he/she is prohibited to perform PPM without supervision until remediation is complete
- 2. Department supervisor will assist to identify mentors who have passed the competency assessment and have current privileges in the area(s) of PPM for which the practitioner failed competency
- 3. Practitioner must correctly interpret ten patient samples with a mentor in each of the examination types that the practitioner failed
- 4. The Mentor will complete an attestation that the practitioner has successfully completed the ten sample review
- 5. Attestation will be filed in the POC department and kept for a minimum of 2 years; a copy of the document(s) is placed in employee personnel file

D. Non-compliance

When it has been determined that a provider is non-compliant with following the remediation procedure the following steps will be taken:

- 1. Notification of department supervisor and/or compliance officer that the individual may not perform PPM testing effective immediately
- 2. Privileges to perform PPM testing will be revoked until provider has complied with mentoring requirements

IV. REFERENCES

- 1. 2017 Comprehensive Accreditation Manual of Laboratory and Point-of-Care Testing, The Joint Commission, HR.01.04.01 & HR.01.06.01
- U.S. Department of Health and Human Services, CLIA '88 Final Rules, Federal Register, Subpart M, §493.1355 - §493.1365, U.S. Government Printing Office, Wash. DC, www.eCFR.org, March 6, 2017
- 3. CADPH-Laboratory Field Services. Laws and Regulations Relating to Clinical Laboratories, Excerpts from the California Business and Professional Code and Regulations, Berkeley, CA, January 1, 1991

Approval	Date
Medical Director of the Laboratory	3/16/17
CCOC	3/27/17
Medical Services/ICU Committee	4/27/17
Peri/Peds Committee	5/26/17
Medical Executive Committee	6/6/17
Board of Directors	6/21/17
Last Board of Director Review	

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Title: Provider-Performed Microscopy Competency*	
Scope: Perinatal, Outpatient Clinics	Manual: Lab- Point of Care, Laboratory
Source: POC Coordinator	Effective Date: 7/31/17

Developed: 3/16 Reviewed: Revised: Supersedes:

Title: Training and Competency in Fern Tes	ting
Scope: Perinatal	Manual: Lab- Point of Care, Laboratory
Source: Lab Coordinator	Effective Date: 3/31/17

I. PURPOSE

CLIA '88, Centers for Medicare and Medicaid Services (CMS), and the State of California laboratory regulations require that all laboratories have on-going mechanisms to monitor accurate patient test management. Fern testing is categorized as "moderately complex" testing. Therefore all individuals performing fern testing or overseeing fern testing performed by trainees, are required to successfully complete training and show that they are proficient in test procedure and reporting test results.

II. PROCEDURE

All testing personnel are trained and evaluated for competency on the fern test including pre-analysis, analysis and post-analysis components. When new test methodology or instrumentation is instituted, employees are retrained and reevaluated. The Point of care (POC) coordinator and department supervisor will develop a program for competency assessment and acceptability standards based on the training protocol, procedure manual, and departmental policies. Supervisors and managers will evaluate common group deficiencies, review current policies and procedures and take corrective action to improve performance.

A. Training and Orientation

- 1. All trainees will read the policy and procedure
- 2. Orientation/Training on the test system will be provided through demonstration
- 3. Successful orientation will be evaluated by use of a written test and initial competency assessment
- 4. Training will be provided by competent training staff
- 5. Personnel qualified to perform training is clinical staff with at least 1 year experience in fern testing and documented training and competency
- 6. Orientation and training is documented on a training checklist and filed in the POC department and kept for a minimum of 2 years; a copy of the document(s) is placed in employee personnel file

B. Competency

Competency for fern testing is assessed at the time of orientation, followed by a 6 month and 12 month evaluation and annually thereafter or as needed.

- 1. Competency for fern testing is assessed using all of the following six methods:
 - a. Direct observation of routine patient test performance, including patient preparation, specimen handling, processing and testing
 - b. Monitoring recording and reporting of test results
 - c. Review of worksheets, QC records and preventative maintenance records
 - d. Direct observation of performance of microscope maintenance and function checks
 - e. Assessment of test performance through testing external PT samples or testing previously analyzed specimens (blind testing)
 - 2. Assessment of problem solving skills by use of a written test
 - 3. Independent performance with no to little additional support is considered successful
 - 4. Successful performance is equal to or greater than 80% correct for the written test
 - 5. Competency is assessed by a qualified designee
 - 6. Personnel qualified to observe and assess competency are competent clinical staff with at least 1 year experience in fern testing

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Title: Training and Competency in Fern Tes	ting	
Scope: Perinatal	Manual: Lab- Point of Care, Laboratory	
Source: Lab Coordinator	Effective Date: 3/31/17	

7. Observed competency is documented on a competency checklist and filed in the POC department and kept for a minimum of 2 years; a copy of the document(s) is placed in employee personnel file

C. Online Competency

NIHD's POC department utilizes an on-line competency challenge program hosted by the University of Washington. A link to this program along with additional instructions on how to log into the program is sent via email by the POC team. There are approximately five questions and 80% of the questions must be answered correctly to pass.

D. Proficiency testing

The POC department contracts with the Wisconsin State Laboratory of Hygiene (WSLH), a CMS approved proficiency testing program that meets regulatory requirements for variety and frequency of testing. Proficiency testing will be conducted bi-annually and consists of two images (paper and online version).

- 1. Proficiency samples are rotated among testing staff who perform patient testing
- 2. Testing personnel tests the proficiency samples the same way that patient samples are tested
- 3. The staff who perform the proficiency testing and the medical director and/or technical coordinator sign attestations documenting that proficiency samples were tested in the same manner as patient specimens
- 4. Testing personnel reports proficiency sample results the same way that patient samples are reported
- 5. Proficiency records are kept for two years; proficiency performance evaluations are kept for 5 years
- 6. A failure is unsuccessful performance in an event and warrants an investigation using the "Proficiency Testing Checklist for Corrective Action"; the investigation is documented and records are kept for 5 years

III. CORRECTIVE ACTION

Retraining and reassessment of employee competency must occur when problems are identified with employee performance.

A. Criteria for Remediation

Authorized training staff will perform remedial training for the following reasons:

- 1. When testing personnel fails an assigned proficiency test(s)
- 2. When deficiencies are being observed during competency assessment; this will be at the discretion of the authorized preceptor
- 3. When deficiencies are being observed during routine patient testing; this will be at the discretion of the supervisor
- 4. When an individual fails to comply repeatedly with testing and/or QC requirements
- 5. When testing staff is non-compliant with regulatory requirements after reasonable attempts of contact have been made by the supervisor and/or POC staff
- B. Retraining and Reassessment

After determination that remediation is required, the following process will be initiated:

Title: Training and Competency in Fern Test	ting	
Scope: Perinatal	Manual: Lab- Point of Care, Laboratory	
Source: Lab Coordinator	Effective Date: 3/31/17	

- 1. Department supervisor and/or director of nursing will be notified that individual will require retraining and that he/she is prohibited to perform fern testing until remediation is complete
- 2. Competent staff will review data and determine if instrument malfunction may have contributed to the problem
- 3. Authorized training staff will conduct remediation training that will include:
 - a. Review of test procedure
 - b. Review of QC logs to determine if staff performs QC correctly
 - c. Observation of specimen collection
 - d. Observation of specimen testing; if possible this will be done using specimens that the trainer observed the testing staff collect
 - e. Successful completion of a written test
 - f. Remediation will be documented and filed in the POC department and kept for a minimum of 2 years; a copy of the document(s) is placed in employee personnel file

C. Non-compliance

When it has been determined that staff is non-compliant with scheduling remediation the following steps will be taken:

- 1. Notification of department supervisor, director of nursing and/or compliance officer that the individual may not perform fern testing effective immediately
- 2. Privileges to perform testing will be revoked until staff has complied with retraining requirements

IV. REFERENCES

- 1. 2017 Comprehensive Accreditation Manual of Laboratory and Point-of-Care Testing, The Joint Commission, HR.01.06.01, EP 18
- U.S. Department of Health and Human Services, CLIA '88 Final Rules, Federal Register, 1992, Subpart M, §493.1351 - §493. 1495, U.S. Government Printing Office, Wash. DC, Vol. 57, No. 40. February 28, 1992
- CADPH-Laboratory Field Services. Laws and Regulations Relating to Clinical Laboratories, Excerpts from the California Business and Professional Code and the California Code of Regulations, Berkeley, CA, January 1, 1991

Approval	Date
Medical Director of the Laboratory	2/28/17
CCOC	2/27/17
Peri/Ped Committee	3/1/17
Medical Executive Committee	3/7/17
Board of Directors	3/15/17
Last Board of Director Review	

Developed: 2/17 Reviewed: Revised: Supersedes:

Title: Urine Dipstick Chemistries - Chemstri	p 10UA*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics, PACU, Perinatal	
Source: Lab Coordinator	Effective Date: 05/16/2017

I. PURPOSE

Rapid, semi-quantitative measurement of multiple urine chemistry parameters at the point of care. The test is useful in the initial evaluation and monitoring of renal, urinary, and metabolic disorders. Chemstrip 10UA with specific gravity (SG) urine test strips manufactured by Roche-Cobas are intended for use visually.

II. PRINCIPLE

The Chemstrip urine test system is a multi-parameter test strip that simultaneously measures specific gravity, pH, nitrite, protein, glucose, ketones, leukocytes and blood in urine. Different reagent pads attached to inert plastic strips change color as they react with the various constituents measured. The color change provides semi quantitative measurements which are read visually against a standard color chart on the test strip container. The following analytes are included:

- 1. **Specific Gravity:** In the presence of cations, protons are released by a complexing agent in the test strip and produce a color change of the indicator bromthymol blue from blue to blue-green to yellow.
- 2. **pH:** Methyl red and bromthymol blue are indicators that give clearly distinguishable color changes (orange through yellow, green, and blue) over a pH range of 5 9.
- 3. Leukocytes: Leukocyte esterase, present in granulocytic leukocytes, catalyzes the hydrolysis of an indoxylcarbonic acid ester to indoxyl. The indoxyl formed reacts with a diazonium salt to produce a purple color.
- 4. Nitrite: The conversion of nitrate (derived from the diet) to nitrite by the action of gram negative bacteria in the urine. Nitrite reacts with an aromatic amine to give a deazonium salt, which couples with sulfanilamide to yield a red-azo dye to produce a pink color.
- 5. **Protein:** The detection of protein is based on the so-called "protein error of pH indicators", using the indicator –tetrachlorophenol-tetrabromosulfophthalein. A positive reaction is indicated by a color change from yellow to green.
- 6. **Glucose:** Enzymatic glucose oxidase catalyzes the formation of gluconic acid and hydrogen peroxide from the oxidation of glucose. A second enzyme, peroxidase, catalyzes the reaction of hydrogen peroxide with the chromogen tetramethylbenzidine to form a green dye complex. A positive reaction is indicated by a color change from yellow to green.
- 7. Ketones: The test principle is based on Legal's test where sodium nitroprusside and glycine react with acetoacetate and acetone in an alkaline medium to form a violet dye complex. A positive result is indicated by a color change from beige to violet.
- 8. **Urobilinogen:** Urobilinogen couples with 4-methoxybenzene-diazonium-tetraflouroborate in an acid medium to form a red-azo dye to produce a pink-red color. This is based on a modified Ehrlich reaction.
- 9. **Bilirubin:** Bilirubin is detected by the coupling reactions of a diazonium salt with bilirubin in an acid medium with an application of a chemical indicator that yields a pink to red-violet color proportional to the total bilirubin concentration.
- 10. **Blood:** Hemoglobin and myoglobin, if present, catalyze the oxidation of an indicator (0-tolidine) by the organic peroxidase in the test paper. Intact erythrocytes hemolyze on the test paper, and the liberated hemoglobin produces a green dot. A uniform green coloration indicates free hemoglobin, myoglobin, or hemolyzed erythrocytes. The color ranges can be

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Title: Urine Dipstick Chemistries - Chemstri	p 10UA*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
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Source: Lab Coordinator	Effective Date: 05/16/2017

from yellow with green dots (free red blood cells) to dark greens and very high levels of blood may cause the color of dark blue

For a more detailed description of the reactions, please see the package insert.

III. TESTING PERSONNEL

A. Approved Health Care Providers

IV. MATERIALS, REAGENTS AND EQUIPMENT

- A. Reagent Strips
 - 1. One vial of Chemstrips 10UA contains 100 test strips (order through purchasing). Store at room temperature. Keep lid closed when not in use.
 - 2. Visual color comparison color scale is printed on the vial label
- B. Liquid Controls by Bio-Rad. Order through purchasing.
 - 1. Store at 2-8°C. Open Stability is 30 days.

C. Additional equipment

- 1. Timer
- 2. Specimen collection containers
- 3. Disposable pipettes-obtained through Lab

V. SPECIMEN COLLECTION AND PRECAUTIONS

- A. Acceptable specimens
 - 1. Freshly voided urine in a clean container deep enough to allow complete immersion of the reagent pads on the test strip.
 - 2. The same urine tested at bedside can be submitted to the lab for complete urinalysis if it is <2 hours old and held at room temperature.
 - 3. When urine has been refrigerated, bring to room temperature before testing. Urines stored from 2-8°C are stable for 12 hours for urine chemistries.
- B. Unacceptable specimens
 - 1. Do not use preservatives
 - 2. Urines that are >2 hours old at room temperature.
- C. Storage
 - 1. Store test strips at 2-30°C
 - 2. Do not freeze
 - 3. Strips are stable in the original capped vial until listed expiration date.
 - 4. Avoid moisture to strips by capping the vial immediately after removal of test strip.
- D. Labeling
 - 1. Write the patient name and a second identifier with a sharpie or attach a patient label to the specimen that has 2 unique identifiers.

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Title: Urine Dipstick Chemistries - Chemstri	p 10UA*
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
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Source: Lab Coordinator	Effective Date: 05/16/2017

- 2. When the urine is sent to the lab for further testing, make sure to add the time of collection and the method of collection (i.e. void, clean catch, catheterized-in and out or foley cath)
- E. Precautions and Warnings
 - 1. Universal precautions should be practiced whenever blood or body fluids are handled.
 - 2. Avoid contact with skin and mucous membranes, flush with copious amounts of water. Get immediate medical attention if in contact with the eyes or ingested.

VI. QUALITY CONTROL (QC)

- A. Testing
 - 1. Each department is required to maintain a QC logbook for QC results.
 - 2. QC must be performed at least once per day or <u>day of use</u> depending upon the frequency of testing in each department.
 - 3. Expiration date on the vial should be checked on a regular basis and replaced as needed. Each open vial should have the date it was opened on it.
 - 4. If there are questionable results, stability of test strips can be verified by retesting a specimen with a new vial and comparing the results.
 - 5. Take care to immerse the strip for only 1 second
 - 6. Any issues or problems encountered must be recorded in the logbook along with explanation how it was resolved.
- B. Control material
 - 1. Liquid Controls are stable for 30 days *after* opening the vial OR until the expiration date printed on the vial, if it is less than 30 days.
 - 2. Ranges for the Control material will vary with each new lot and is established by the manufacturer.
 - Range values for the new lot of control material must be recorded on the log.
 - The new QC lot package insert should be retained in the QC logbook after the ranges are added to the QC log. The package insert will be retained 2 years.
 - 3. When Corrective Action needs to be taken:
 - a. Check expiration dates of strips and controls.
 - b. Ascertain that controls and strips have been stored correctly.
 - c. Open new control bottle or strip container.
 - d. Note problem on the QC log.
 - e. If further troubleshooting is needed, contact the lab Point of Care Coordinator or assistant.

VII. PROCEDURE

- 1. Using 2 patient identifiers, verify patient's identity, and explain procedure to patient and/or family.
- 2. Observe universal precautions. Wear gloves and other protective equipment as needed.
- 3. Urine should be in a container that permits complete immersion of the test strip reagent area.
- 4. Mix specimen thoroughly by swirling container before testing.
- 5. Briefly (no longer than 1 second) dip strip into the urine. Ensure that all pads have been immersed then immediately remove the strip from the specimen.

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Title: Urine Dipstick Chemistries - Chemstri	p 10UA*
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Source: Lab Coordinator	Effective Date: 05/16/2017

- 6. Draw the edge of the test strip along the edge of the container to remove excess urine.
- 7. Turn the test strip on its side and press lightly against absorbent paper to remove remaining urine.
- 8. After 1 minute, read the strip as follows
 - a. Hold strip close to the color blocks and match carefully.
 - b. Ensure that strip is oriented properly to the color chart on the vial label
- 9. Read all tests at 1 minute.
 - a. If Leukocyte pad indicates a trace result, it should be read again at 2 minutes.
 - b. Color changes that occur after 2 minutes from immersion are not of clinical value
 - c. Color changes that occur along the edge of test pad should be ignored (removal of urine in above steps should eliminate this effect).

VIII. RESULTS

Parameter	Normal Value	Abnormal Result
Specific gravity	1.001-1.035	<1.000 or > 1.035
Leukocyte Esterase	Negative	1-3+
pH*	5-9	<5.0 or >9.0
Leukocytes	Negative	1-3+ (should repeat trace amount)
Nitrite	Negative	1-3+
Protein	Negative	1-3+
Glucose	Negative	1-4+
Ketones	Negative	1-3+
Blood	Negative	1-3+

*on urines with a pH equal or greater than 7.0, 0.005 should be added to the specific gravity reading. Urine dip results will be added to nurse's notes.

IX. LIMITATIONS

- A. Limitations-interferences are listed in the package insert following this procedure.
- B. Extreme temperature changes outside the manufacturers' recommendations may compromise the results of the test.
- C. Avoid subjecting test strips to moisture when not in use (KEEP THE LID TIGHTLY CLOSED).
- D. Certain medications such as pyridium cause intense color change that make the dipstick difficult to read, send the urine to lab for a complete UA and microscopic exam.

X. REFERENCES

1. Package Insert 03-2014 v 2.0

Approval	Date
Medical Director of the Laboratory	4/20/16

Title: Urine Dipstick Chemistries - Chemstrip 10UA*	
Scope: ER, ICU, Laboratory, Med Surg,	Manual: Lab- Point of Care
Outpatient Clinics, PACU, Perinatal	
Source: Lab Coordinator	Effective Date: 05/16/2017

CCOC	3/27/17
Emergency Medical Care Committee	3/16/17
Medical Services Committee	3/23/17
Peri/Peds Committee	3/21/17
Medical Executive Committee	4/4/17
Board of Directors	4/19/17
Last Board of Directors Review	2

Developed: 3/16 Reviewed: Lab 03/17, Board of Directors 4/17, 6/20 Revised: $\frac{66/20}{5}$ Supersedes:

Language Services Policies

For BOD Review April, 2021

Title: Language Access Services Program*	ķ	
Scope: Bilingual Staff	Manual: Language Services	
Source: Language Access Services	Effective Date:7/18/17	
Manager		

PURPOSE:

The purpose of the Northern Inyo Healthcare District Language Access Service Program is to ensure workforce providing language or communication assistance have the language, and interpreting skills¹ required to assist in providing high quality health care services for Limited English Proficient, non-English speaking, and hearing-impaired patients.

POLICY:

- 1. It is the policy of NIHD to provide high quality health care services to all patients by ensuring timely and appropriate language or communication assistance to non-English speaking, or limited English proficient patients.
- 2. NIHD shall provide language or communication assistance through the utilization of any of the resources approved under the Language Access Services Program, which meets the patient's needs and it is within the resources available to NIHD.
- 3. Non-approved interpreters, language or communication resources (in-person, or remotely via computer, tablet, and/or Smartphone) shall not be utilized to assist workforce members communicating with non-English speaking, or limited English proficient patients.

LANGUAGE ACCESS SERVICES PROGRAM:

Northern Inyo Healthcare District recognizes that access to health care services is the right of every patient. The Program defines the District's language or communication assistance resources, services, levels of service; assessment and training requirements for workforce providing services on behalf of the Program.

Northern Inyo Healthcare District offers qualified medical interpreting services for spoken languages and American Sign Language 24 hours a day, seven days a week.

RESOURCES

The Program utilizes the services of:

- a) Qualified approved bilingual workforce members
- b) Workforce members qualified as dual-role medical interpreters
- c) In-house and contracted professional translation services
- d) Telephone-based interpreters from CyraCom®
- e) Video Remote Interpreters for American Sign Language
- f) Qualified Video Remote Interpreters from the Health Care Interpreter Network (HCIN[®]), and from CyraCom[®]

¹ Joint Commission Standard HR.01.02.01 The hospital defines staff qualifications. Note 4: Qualifications for language interpreters and translators may be met through language proficiency assessment, education, training, and experience. The use of qualified interpreters and translators is supported by the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, and Title VI of the Civil Rights Act of 1964.

Title: Language Access Services Program*	
Scope: Bilingual Staff	Manual: Language Services
Source: Language Access Services	Effective Date:7/18/17
Manager	

SERVICES

The Program encompasses the following services:

- a) Direct patient care services in qualifying languages²
- b) Limited in-person³ interpreting services for Spanish-speaking patients
- c) Over-the-phone interpreting services in over 200 different spoken languages
- d) Video Remote Interpreting for American Sign Language, and for a limited number of spoken languages
- e) Translation of Vital Documents in qualifying languages⁴

LEVELS OF SERVICE

Qualified bilingual workforce members, and dual-role medical interpreters must complete all the criteria required for each designation before providing bilingual or interpreting services.

Northern Inyo Healthcare District-qualified medical interpreters are trained on, and adhere to the California Standards for Healthcare Interpreters, including its Professional Ethical Code of Conduct, as set forth by the California Healthcare Interpreting Association; and abide by the Hospital's privacy and confidentiality policies and regulations.

The Northern Inyo Healthcare District's Language Access Services Program includes the following levels of service:

Level I – Qualified Bilingual Non-Clinical Level II – Qualified Bilingual Clinical Level III – Qualified Dual-Role Medical Interpreter Level IV – Medical Interpreter

Level I - Qualified Bilingual Non-Clinical

² As required by the California Health and Safety Code Section 1259 (b)(2)(A), "Language or communication barriers."

³ Workforce members qualified as dual-role medical interpreters have a primary job, and are not always available to provide interpreting services.

⁴ In compliance with California Health and Safety Code Section 1259; and according with Office of Civil Rights Guidance on enforcing Title VI of the Civil Rights Act of 1964, the definition of Vital Documents "may depend upon the importance of the program, information, encounter, or service involved, and the consequences to the LEP person if the information in question is not provided accurately or in a timely manner."

Title: Language Access Services Program*	
Scope: Bilingual Staff	Manual: Language Services
Source: Language Access Services	Effective Date:7/18/17
Manager	

Definition: A workforce member providing direct services in a qualifying language in <u>non-</u> <u>clinical</u> settings. A qualified bilingual non-clinical workforce member must complete the criteria for dual-role medical interpreters before he/she is allowed to provide interpreting services. **Criteria:** To earn the Qualified Bilingual Non-Clinical designation, the workforce member must:

- a) Hold a position in a non-clinical area where utilization of his/her bilingual skill will benefit the Northern Inyo Healthcare District's ability to communicate with patients, by providing direct services in the qualifying language
- b) Pass the qualifying language, language proficiency test from LanguageLine AcademySM at level 3.

Level II - Qualified Bilingual Clinical

Definition: A workforce member providing direct services in a qualifying language in clinical settings. A qualified bilingual clinical workforce member must complete the criteria for dual-role medical interpreters before he/she is allowed to provide interpreting services.

Criteria: To earn the Qualified Bilingual Clinical designation, the workforce member must:

- a) Hold a position in a <u>clinical setting</u> where utilization of his/her bilingual skill will benefit the Northern Inyo Healthcare District's ability to communicate with patients by providing direct services in the qualifying language
- b) Pass the qualifying language, language proficiency test from LanguageLine AcademySM at level 3+.

Level III – Qualified Dual-Role Medical Interpreter

Definition: A workforce member providing interpreting services in medical and non-medical settings. *Dual-role medical interpreter's primary job is not interpreting*.

Criteria: To earn the qualified dual-role medical interpreter designation, the workforce member must:

- *a)* Pass the qualifying language, language proficiency test from LanguageLine AcademySM at level 4. (*Workforce member must pass this test before he/she is approved to take the required interpreters' training*)
- b) Complete a comprehensive training (40-hours minimum) for healthcare interpreters, i.e. Connecting Worlds Training for Healthcare Interpreters
- c) Complete a medical terminology course in English
- d) Complete a medical terminology course in the qualifying non-English language
- e) Pass the medical interpreting skills test
- f) Complete 8 practicum hours

Level IV – Medical Interpreter

Title: Language Access Services Program*	
Scope: Bilingual Staff	Manual: Language Services
Source: Language Access Services	Effective Date:7/18/17
Manager	

Definition: A workforce member whose primary job is providing interpreting services in medical and non-medical settings.

Criteria: (will be listed in job description)

A Qualified Healthcare Interpreter may have completed all training required before hired at NIHD, or it must be completed before he/she provides interpreting services. The workforce member must:

- a) Pass a language proficiency test from LanguageLine AcademySM at level 4;
- b) Complete a comprehensive training (40-hours minimum) for health care interpreters, i.e. Connecting Worlds Training for Healthcare Interpreters;
- c) Complete a medical terminology course in English;
- d) Complete a medical terminology course in the qualifying non-English language;
- e) Pass the interpreting skills test; and
- f) Complete 8 practicum hours in medical settings.

CROSS REFERENCE P&P:

1. Language Access Services Policy

Approval	Date
NEC	6/7/17
Senior Leadership	5/22/17
Board of Directors	6/21/17
Last Board of Directors Review	2/18/2020

Developed: 5/17 Reviewed: Revised: Supersedes: Index Listings:

Title: Language Access Services Policy	
Scope: District Wide	Manual: Language Services
Source: Language Access Services Manager	Effective Date: 12/19/19

PURPOSE:

The purpose of this policy is to ensure timely and appropriate language or communication assistance is provided to Limited English Proficient (LEP), or hearing impaired patients or their representatives for equal and meaningful access to high quality health care services.

POLICY:

- 1. It is the policy of Northern Inyo Healthcare District (NIHD) to provide timely and appropriate language or communication assistance to patients and/or their representatives experiencing language or communication barriers.
- 2. NIHD provides language or communication assistance through the utilization of any of the resources approved under the District's Language Access Services (LAS) Program.
 - a) NIHD-approved resources for language access services are:
 - i. Workforce members designated as qualified approved bilingual, qualified medical interpreter, and qualified healthcare interpreter.
 - ii. Workforce accredited as Certified Healthcare InterpreterTM
 - iii. Contracted over the phone, or video remote interpreting services, and
 - iv. Translated forms, and materials into qualifying threshold languages¹.
 - b) The unavailability of a qualified workforce member to provide language or communication assistance shall not cause a delay in providing health care services, in any form, and at any time. When qualified workforce members are not available, workforce members shall immediately utilize the telephone or video remote interpreting services, which are available 24 hours a day, seven days a week.
 - c) Workforce members **shall not** ask patients' family members or friends to provide interpreter services in any form and at any time.
 - d) Workforce **not** qualified as Approved Bilingual, and **not approved** to provide language or communication assistance, shall not attempt to provide direct or indirect communication (assisted with a computer, tablet, and/or Smartphone), and shall **only** use District-approved resources for language access services.
- 3. NIHD:
 - a) Provides the assistance of trained qualified interpreters (in-person or remotely by telephone or video) to LEP, and hearing impaired patients,
 - b) Encourages patients not to use friends or family members as their interpreter, and
 - c) Does not allow the utilization of anyone under the age of 18 years of age as an interpreter.
- 4. NIHD recognizes patients' right to self-autonomy, and their right to refuse to use the qualified interpreter services provided by the District. However, in order to **ensure communication and compliance**²:
 - a) NIHD workforce members shall obtain a signed Waiver of Interpreter Services any and every time a patient requests to use a friend or family members (which is 18 years of age or greater) as his/her interpreter of choice. The signed waiver must be scanned as part of the medical record for that visit.

¹ Under Title VI of the Civil Rights Act of 1964, ACA § 1557, and CA Health and Safety Code, Division 2, Chapter 2, Article 1, §1259, NIHD's only qualifying language is Spanish.

² ACA § 1557: Recipients must provide a qualified interpreter.

Title: Language Access Services Policy	
Scope: District Wide	Manual: Language Services
Source: Language Access Services Manager	Effective Date: 12/19/19

- b) In order to ensure the accuracy and completeness of the patient's interpreter of choice, NIHD workforce members shall have a District-approved interpreter (in-person, over the phone, or video) present at the same time; during each and every time the patient is using his/her interpreter of choice.
- c) NIHD workforce members who are requested by their friend or family member to be their interpreter of choice, are encouraged to function in the role of support-person and refrain from the interpreter role. Should the NIHD workforce member chose to interpret; an additional District-approved interpreter must be utilized.
- d) NIHD workforce members are allowed to be the patient's interpreter of choice, without the need to sign a Waiver, **only** when one of the following circumstances apply:
 - i. The patient is a minor and the workforce member is the parent, or
 - ii. The workforce member has been designated as the patient's legal representative, and the proper documentation is on file.
- e) NIHD workforce members obtaining the signed Waiver must complete and sign the Workforce Member Certification portion of the Waiver.
- 5. NIHD translates documents identified as Vital, Significant Publications, and Significant Communications into qualifying threshold languages³.
 - a) All requests for translation shall be submitted to the Language Access Services Department.
- 6. Workforce members shall provide patients the forms and information in the patient's preferred language when they are available.
 - a) When a form is available in Spanish, workforce members shall use both forms, the one in English and its Spanish translation when obtaining the patient's signature for a surgery or diagnostic procedure or any other form (the patient shall sign both forms, and both forms shall be scanned into the patient's medical record).
 - b) NIHD maintains a translated list, in qualifying languages Spanish, of the most frequently performed procedures at NIHD. When available, the name of the surgery or procedure shall be written in Spanish in the translated form. The form in English shall have the name of the surgery or procedure written in English.
 - c) When the name of the surgery or procedure is not available in Spanish, workforce members shall write in English the name of the surgery or procedure in the Spanish form.
- 7. NIHD develops and posts Notices informing LEP patients of their rights to language access services.
- 8. NIHD designs all signage to ensure qualifying LEP populations understand how to access all public areas.
- 9. NIHD workforce shall be required to read and become familiar with this policy during new hire orientation, and then as required by the District.

REFERENCES:

This policy is in compliance with, but not limited to the following:

- 1. Title VI of the Civil Rights Act of 1964;
- 2. The Affordable Care Act, §1557;
- 3. California Health and Safety Code, Division 2, Chapter 2, Article 1, §1259;
- 4. California Health and Safety Code § 1367.04(b)(1)(B)(i)-(vi);

³ Title VI of the Civil Rights Act of 1964; Affordable Care Act § 1557; and California Health and Safety Code, Division 2, Chapter 2, Article 1, § 1259

Title: Language Access Services Policy	
Scope: District Wide	Manual: Language Services
Source: Language Access Services Manager	Effective Date: 12/19/19

- Emergency Medical Treatment and Active Labor Act; and
 The Joint Commission Standards on Patient-Centered Communication.

CROSS REFERENCE P&P:

- 1. Language Access Services Program.
- 2. Admission Services Training Manual

Approval	Date
CCOC	12/16/19
Administration	12/23/19
Board of Directors	12/18/19
Last Board of Directors Review	2/18/2020

Developed: 12/19 jg Reviewed: Revised: Supersedes:



NORTHERN INYO HEALTHCARE DISTRICT REPORT TO THE BOARD OF DIRECTORS FOR INFORMATION

Date: April 9, 2021 Title: **CERNER PROJECT UPDATE**



Top Accomplishments for this Reporting Period

Integration Test Events: On April 15, we will complete our third and final round of integration testing. The
purpose of the testing events is to identify any issues with our workflows or the system configuration settings.
Over the course of the three testing rounds, we tested one hundred three different patient scenarios. We
worked through identified workflow issues and made modifications. We also logged seventy-two service
requests with Cerner to make configuration changes.

As part of the third round of testing, we tested interfaces (e.g. OmniCell medication dispensing, Bedside Monitoring) as well as equipment (e.g., barcode scanners, printers). This gives us a well-rounded view of how the Cerner system, new equipment, and our workflows all come together.

2. Project Communication: The communication team continues to publish it's bi-weekly project newsletter providing all staff with pertinent project information. Additionally, they publish a monthly provide update report and a monthly provider podcast.

The communication teams is also in charge of creating project related fun activities. This past month they had a golden egg hunt. There were ten golden eggs hidden on the campus. Individuals who found the eggs received prizes.

- **3.** End User Training: Our super users have prepared for nearly seven months to be our end-user instructors. They have participated in data gathering, design decisions, and system testing. Cerner has a Learning Management System called Learning Journey. Our super users were assigned learning journeys that consisted of videos and interactive simulations. Most recently, they completed their lesson plans using sample curriculum and competency check lists provided by Cerner. All end-users have received their training schedule.
- **4. Provider Training:** Final plans have been completed for provider training. Providers will be grouped by specialty (e.g., clinic providers, surgery, ED) so that training can incorporate both EHR system training and specialty specific workflow training. Invitations will be sent to providers the week of April 12.

Date: March 5, 2021

Title: CERNER PROJECT UPDATE

- 5. Multiview Financial Application Conversion / Go-Live: The Multiview financial suite went live on April 1. The team has worked through minor issues. One issue was logged as a service request and has since been resolved. There are currently no active issues.
- 6. Cerner Conversion / Go-Live Planning: We are developing the conversion/go-live plan. The plan will include the staffing and methodology to provide end-user support along with contact information. It will also define the issue reporting process and command center roles and responsibilities. The comprehensive plan will be provided to senior leadership, department managers, subject matter experts, and super users.

Issues or Concerns the Board of Directors Should Be Aware Of

- 1. Athena Health Data Export: As part of our contractual agreement with Athena Health, they are obligated to provide us with a copy of our patient data. We requested a data copy on February 24, 2021. As of April 9, 2021, we have not received the copy. On April 8, 2021, Kelli Davis contacted Athena Health to escalate our request. This copy is essential to smoothly transition to Cerner on May 17, 2021.
- 2. Unit Charge Testing: All chargeable items must be tested before go-live to ensure we are correctly dropping charges to patient bills. As of April 9, 2021, we have tested approximately 51% of our charges which is behind schedule. Department managers have been made aware and are working with their teams to complete the testing.

Upcoming Events or Milestones

1. End User Training: Our super users/class instructors will lead our end-user training. Students class time will vary depending on the student's role in the organization and the number of departments they work in. Most students will participate in somewhere between six to twelve hours of classes.

Upcoming Event Calendar

• End User Training

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- April 12 May 15
- Provider Training April 27 29
- Provider Concierge

Go-Live Support

- May 4 6 May 17 - 28
- Most classes will be conducted in-person. We have designated several meeting rooms as classrooms.

Equipment including laptops, printers, barcode scanners have been deployed.

There are a few classes that will be conducted via zoom. These classes are made available to staff who traditionally don't work on campus like our HIM coders.

- 2. Provider Training: Instructors provided by Cerner will lead our provider training classes. These classes will be held the week of April 26. The sessions will be delivered in person along with being broadcast via Microsoft Teams meetings. This approach allows us to deliver training to our providers on campus and our travelling providers that are not on campus.
- 3. **Provider Concierge:** Cerner will be on site the week of May 3, to assist providers with setting up their system favorites. Providers will be scheduled to attend a thirty-minute session. These sessions will either be small groups of no more than three providers or may be held one on one with providers.
- 4. **Go-Live:** Final planning for our go-live on May 17 is well underway.

Date: March 5, 2021 Title: **CERNER PROJECT UPDATE**

> Prepared by: <u>Daryl Duenkel, Project Manager, Wipfli</u> Name and Title

Reviewed by: _

Name Title of Chief who reviewed

Approved by: _

Name Title of Chief who approved

FOR EXECUTIVE TEAM USE ONLY:

Date of Executive Team Acceptance:	_Submitted by: _		
		Chief Officer	

An Internal NIHD Communication

April 7, 2021



Produce bi-weekly during The NIHD Cerner Implementation



4/	
Project status	P2
Contest Winners	P4
Upcoming Events	

If everyone is moving forward together, then success takes care of itself."

- Automaker Henry Ford

Financial suite Multiview live, end user on its way

No joke about, our first step toward a new day with Cerner project comes to fruition

On April 1, Multiview went live. Multiview is our new financial suite that includes General Ledger, Accounts Payable, Fixed Assets, and Budgeting. Our finance team worked hard to ensure that everything was ready from configuration, data load,

Have Questions?

You can always reach out to our Sierra Cerner Project Managers:

> Lynda Vance Lynda Vance@NIH.org

Daryl Duenkel DDuenkel@wipfli.com

testing and training. This was no small feat as the team worked through some staffing changes Continued on page 2

Sierra Cerner Project Update: Common Cautionary Stage



We continue to be in a status of yellow or cautionary. We expect to be at this level right up to golive. That is very common for this stage of our project. We have a number of key tasks to complete and each is critical to our successful go live. Some of

the items that we are currently working on include:

Historical Data Load

We will export historical data from Athena and upload portions of it into Cerner and the remainder into our archive system OneContent. Testing this process has been a challenge and we are working to make it 100% accurate. When complete, our care providers will be able to see some of the historical information in Cerner and also have a hyperlink to directly access the remaining information in OneContent.

Interfaces

While Cerner is a highly integrated system, we have developed interfaces to other applications (e.g., 7Medical PACs), equipment (e.g., lab instruments), and vendors (e.g. LabCorp reference lab). These interfaces are complex and require absolute precision. We are testing and fine-tuning these interfaces.

Charge Testing

Cerner is a clinically driven revenue system. What that means is that each clinical department contributes to our revenue by placing orders for procedures, medications, and supplies. These departments are responsible for testing every item that they charge for to ensure a charge drops to the bill. This is a long, arduous task, but one that is essential to ensure we charge our patients completely for everything we do and that we charge them accurately.

Order Set Build / Review / Test

Simply put, an order set is a grouping of logical orderables that when built into an order set improves the efficiency of our care providers. We have more than 100 order sets and are finalizing some of the more complex ones.

-- D. Duenkel

Multiview

From page 1

and the impact of COVID-19. Congratulations to all that have really shown what dedication, hard work, and team spirit can do.

Department managers, you should have received an email from the finance team about how to approve vouchers. Multiview is a very intuitive system. A training video is available that will walk you through everything you need to know.

As always, our finance team is there to support you and answer any questions you may have.



Miss Cerner Town Hall? See it via Intranet

On March 18 we held a Town Hall Meeting. All staff were invited to attend.

Presenters, Daryl Duenkel, Wipfli/ Lead Project Manager, Lynda Vance, NIHD Project Manager, Meredith Cook, Cerner Project Manager, and Marjorie Routt, NIHD Education Coordinator provided an exciting presentation focused on end-user training and what we can expect when we go-live on May 17.

The audience responded with thought provoking questions. If you were unable to attend the Town Hall meeting, it was recorded and is available via the NIHD Intranet.

UPCOMING **EVENTS & ACTIVITIES**

Integration Testing Round 2. We are intensely working on the final planning steps for our third round of integration testing. This is our last significant system test and most closely reflects what we can expect at go-live. We have beefed up our scripts to have more complex patient scenarios. With this event we will also test for the first time the interfaces to other systems. For example, we will test the patient workflow for the OmniCell medication dispensing units. We will also test hardware like barcode scanners and document scanners.

Cerner will be onsite for both weeks of our testing event to assist us and work through any system configuration issues. The first week of the event involves most of our departments. So, Cerner will have a large contingent of nearly 25 consultants on hand to assist us. We are finalizing where the consultants and our teams will work so that they can be together, safely.

End User Training: By now you should have received your Learning Journey assignment. These Learning Journeys are a series of videos and interactive simulations. Completing your Learning Journey is a prerequisite to participate in end-user training. The Learning Journey assignment will expose you to the Cerner system and prepare you for your class. Having this exposure will make your end-user training experience more effective and smoother. If you have not received your Learning Journey assignment, please contact Marjorie Routt at Marjorie.Routt@nih.org.

You should have also received your schedule for end user training. Depending on your role and how many departments you work in will determine how many classes you will need to attend. Staff may be scheduled to attend as few as 6 hours of classes and as many as 14 hours. The date and time of your class is determined by your department trainer / super users. If you have not already received your class invitations, please contact your department super user. If you do not know who your super user is, please contact your department manager.

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Training Time Winners

Congratulations to the following Subject Matter Experts and Super Users for tallying up some serious utilization time on the new Cerner Electronic Health Record. Each earned a goodie bag with small gifts from Cerner, Wipfli and NIHD. We thank them all for their dedication in moving us closer to our launch date!

Feb. 21-27

Jeff Kneip logged 2,067 minutes for 1.4 days Jeff Garrison logged 944 minutes for .65 days, and Bruce Tulloch logged 487 minutes for .33 days

March 14-20

Tanya DeLeo logged 1,637 minutes for 1.1 days Jasmine Paredes logged 1,050 minutes for .76 days, and Beronica Sandoval logged 807 minutes for .56 days

March 29-April 3

Amy Stange logged 688 minutes for .47 days Hannah Pirner logged 557 minutes for .38 days, and Marci Boyd logged 528 minutes for .36 days

Those winners who have not yet picked up their gifts are asked to contact Barbara Laughon at ext. 3415

From top to bottom: Tanya DeLeo, Beronica Sandoval and Jeff Garrison. Photos by Barbara Laughon

Golden Egg Hunt Winners announced

Willy Wonka would be proud of TeamNIHD. It may have taken us twobusiness days to hunt down the 10 Golden Eggs with the 10 Golden Tickets, but the following folks did it! We hope the other egg hunters enjoyed the seasonal candy as well.

Brooklyn Burley Jenny Bates Martha Santana (found two) Blanca Astorga Susan Kabel Tony Lewis Danielle Medeiros Amanda Rhodes Teresa Surratt



The Sierra Cerner Project

Overview: February billed charges were over budget by \$1.2M.

February YTD is \$112M compared to budget of \$95M.

	Charges	Budget
January 2020	16,271,574	14,095,678
February 2020	13,886,140	13,186,280
March 2020	12,141,181	14,095,678
April 2020	6,887,085	13,640,980
May 2020	10,687,793	14,095,678
June 2020	13,443,103	13,640,980
July 2020	14,939,822	11,862,737
August 2020	13,989,077	11,533,455
September 2020	14,652,230	10,715,581
October 2020	14,539,677	12,487,777
November 2020	12,978,658	11,166,411
December 2020	15,139,508	11,863,789
January 2021	13,060,873	13,778,625
February 2021	12,879,445	11,639,016

Gross Accounts Receivables in Athena total \$38.2M, down from \$39.1M at the end of January. Gross Legacy AR is at \$1,9M, Totally reserved for as Uncollectable.

Salaries and Wages for hospital operations were up from January but within budget.

	Salaries & Wages	Cost Per Day
January 2020	2,169,008	69,968
February 2020	2,144,412	73,945
March 2020	2,306,958	74,418
April 2020	1,999,126	66,638
May 2020	2,082,141	67,166
June 2020	2,130,598	71,020
July 2020	2,244,335	72,398
August 2020	2,263,144	73,005
September 2020	2,142,762	71,425
October 2020	2,227,959	71,870
November 2020	2,161,607	72,054
December 2020	2,596,191	83,748
January 2021	2,096,158	67,618
February 2021	2,104,702	75,168

February 2021 Financial Results: Revenues trended higher than budget in February

Direct costs were higher than budget due to pharmacy charges trending 150k higher per month, Labcorp testing of 200-400k per month, and G&A costs were 340k lower than budget.

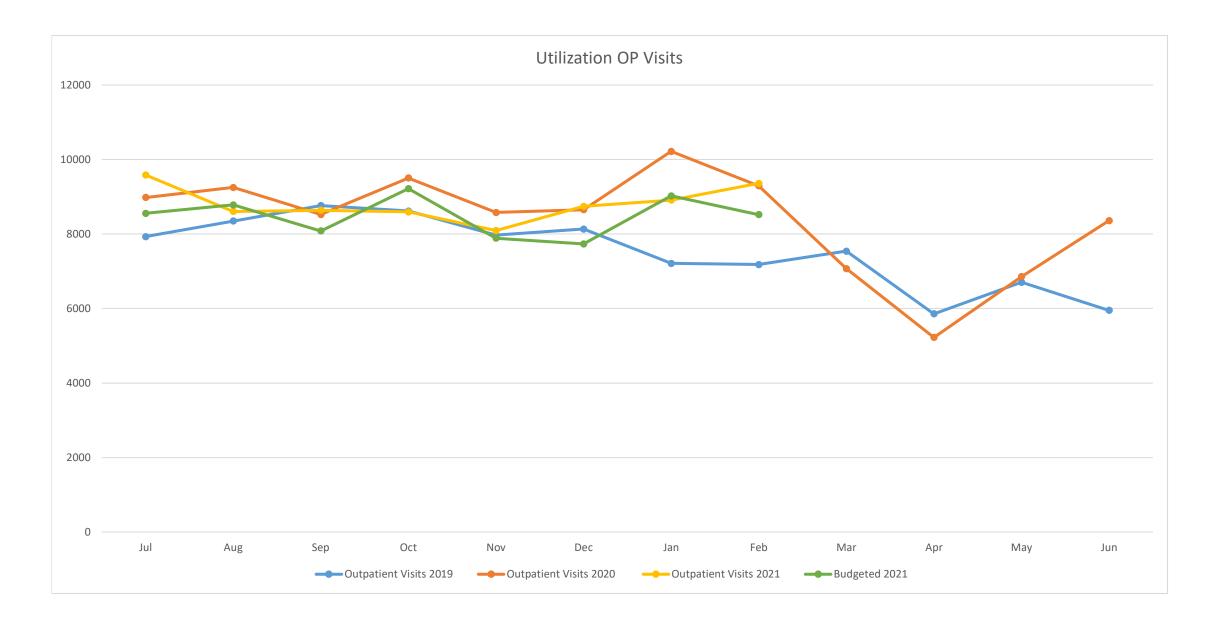
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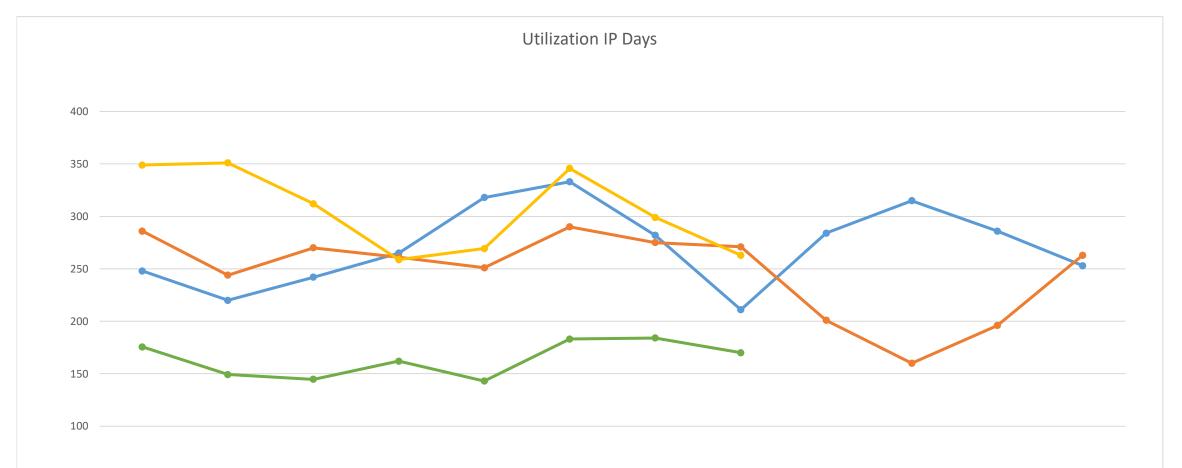
Cash, CDs & LAIF Investments Days Cash on Hand Gross Accounts Receivable Average Daily Revenue Gross Days in AR <i>Key Statistics</i> Acute Census Days	56,272,847 226 46,949,619 481,930 97.42	55,214,586 225 48,287,230 466,595	52,965,190 220 45,195,462	53,539,618 218 39,988,328	50,491,090 153	47,413,188 143	44,556,758 156	42,840,110 150
Gross Accounts Receivable Average Daily Revenue Gross Days in AR <i>Key Statistics</i>	46,949,619 481,930	48,287,230 466,595	45,195,462			143	156	150
Average Daily Revenue Gross Days in AR Key Statistics	481,930	466,595		39 988 378				
Gross Days in AR Key Statistics				55,500,520	38,951,324	41,570,823	39,066,151	38,262,376
Key Statistics	97.42		473,708	472,527	464,702	468,886	462,027	461,791
-		103.49	95.41	84.63	83.82	88.66	84.55	82.86
Acuto Concus Davis								
Acule Census Days	263	275	232	203	210	310	246	198
Swing Bed Census Days	42	44	34	8	20	8	16	28
Observation Days	44	32	46	48	39	28	37	37
Total Inpatient Utilization	349	351	312	259	269	346	299	263
Avg. Daily Inpatient Census	11.3	11.3	10.4	8.3	9.0	11.2	9.6	9.4
Emergency Room Visits	691	639	581	624	516	504	524	480
Emergency Room Visits Per Day	22	21	19	20	17	16	17	15
Operating Room Inpatients	31	26	39	23	27	18	21	12
Operating Room Outpatient Cases	81	74	74	74	79	90	38	68
RHC Clinic Visits	2,670	2,614	2,535	2,730	2,490	2,758	2,954	3,282
NIA Clinic Visits	1,792	1,794	1,918	1,681	1,555	1,642	1,290	1,408
Outpatient Hospital Visits	4,431	3,558	4,139	3,560	3,531	3,837	4,140	4,188
Hospital Operations								
Inpatient Revenue	3,201,903	3,105,168	3,469,234	2,495,776	2,626,028	4,084,113	3,318,446	2,323,227
Outpatient Revenue	10,836,050	10,143,216	10,036,379	10,848,725	9,124,901	10,195,061	8,853,180	9,762,269
Clinic (RHC) Revenue	901,868	740,693	1,146,616	1,195,178	1,227,729	896,334	889,247	793,949
Total Revenue	14,939,822	13,989,076	14,652,230	14,539,679	12,978,658	15,175,508	13,060,873	12,879,445
Revenue Per Day	481,930	451,261	488,408	469,022	432,622	489,533	421,318	459,980.18
% Change (Month over Month)		-6.36%	8.23%	-3.97%	-7.76%	13.15%	-13.93%	9.18%
Salaries	2,244,335	2,263,143	2,142,762	2,227,959	2,161,607	2,596,191	2,096,158	2,104,702
PTO Expenses	221,460	234,078	225,291	249,855	258,672	124,932	370,227	234,842
Total Salaries Expense	2,465,795	2,497,221	2,368,053	2,477,814	2,420,279	2,721,123	2,466,385	2,339,544
Expense Per Day	79,542	80,556	78,935	79,929	80,676	87,778	79,561	83,555
% Change		1.27%	-2.01%	1.26%	0.93%	8.80%	-9.36%	5.02%
Operating Expenses	6,681,333	6,598,376	6,443,189	6,700,067	7,141,845	9,200,728	7,485,656	7,229,565
Operating Expenses Per Day	215,527	212,851	214,773	216,131	238,062	296,798	241,473	233,212
Capital Expenses	118,728	243,872	146,626	47,518	24,398	47,743	1,042,766	27,227
Capital Expenses Per Day	3,830	7,867	4,888	1,533	813	1,540	33,638	972.39
Total Expenses	8,056,147	7,962,211	7,811,638	7,971,619	8,554,701	10,596,071	8,859,968	8,349,803
Total Expenses Per Day	259,876	256,846	260,388	257,149	285,157	341,809	285,805	298,207
Gross Margin	2,200,258	1,770,841	1,569,390	1,411,167	667,943	(182,482)	699,801	225,290
Debt Compliance								
Current Ratio (ca/cl) > 1.50	1.51	1.49	1.47	1.47	1.53	1.52	1.42	1.36
Quick Ratio (Cash * Net AR/cl) > 1.33	1.51	1.38		1.37	1.55	1.32	1.29	1.23
Days Cash on Hand > 75	226	225	220	218	1.41	143	1.25	1.23

	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020	January 2020	February 2021
Total Net Patient Revenue	8,881,591	8,369,217	8,239,709	8,111,234	7,809,788	9,018,246	8,185,457	7,454,855
Cost of Services								
Salaries & Wages	2,244,335	2,263,143	2,142,762	2,227,958	2,161,607	2,596,191	2,096,158	2,104,702
Benefits	1,285,813	1,444,212	1,418,815	1,486,044	1,593,889	1,473,236	1,676,074	1,403,697
Professional Fees	1,729,883	1,641,804	1,519,996	1,734,533	1,988,193	2,046,081	2,153,241	1,928,594
Pharmacy	176,452	304,490	373,754	268,114	229,276	403,646	333,834	343,360
Medical Supplies	373,322	237,452	307,119	362,431	571,269	284,134	198,902	445,225
Hospice Operations	-	-	-	-	-	-	-	
Athena EHR System	85,401	86,356	129,219	145,890	103,674	89,294	70,400	68,680
Other Direct Costs	592,164	492,312	420,847	475,097	493,937	608,146	457,047	485,307
Bad Debt	193,962	128,607	161,285	-	-	1,700,000	500,000	450,000
Total Direct Costs	6,681,333	6,598,376	6,473,796	6,700,067	7,141,845	9,200,728	7,485,656	7,229,565
Gross Margin	2,200,258	1,770,841	1,765,913	1,411,167	667,943	(182,482)	699,801	225,290
Gross Margin %	24.77%	21.16%	21.43%	17.40%	8.55%	-2.02%	8.55%	3.02%
General and Administrative Overhead								
Salaries & Wages	341,944	326,215	323,043	340,706	348,981	335,953	331,284	299,846
Benefits	280,576	230,351	242,620	273,351	315,018	235,101	253,272	225,528
Professional Fees	182,344	187,479	170,202	172,012	230,120	263,864	324,397	150,882
Depreciation and Amortization	348,949	350,898	350,981	351,061	351,070	351,786	332,743	333,225
Other Administrative Costs	196,201	195,246	152,383	134,422	167,667	208,639	132,616	110,757
Total General and Administrative Overhead	1,350,014	1,290,188	1,239,230	1,271,552	1,412,856	1,395,343	1,374,312	1,120,238
Net Margin	850,244	480,653	526,683	139,614	(744,913)	(1,577,825)	(674,511)	(894,948)
Net Margin %	9.57%	5.74%	6.39%	1.72%	-9.54%	-17.50%	-8.24%	-12.00%
Financing Expense	121,150	119,676	114,676	134,694	146,215	115,920	111,327	113,408
Financing Income	56,337	56,337	56,337	56,337	1,076,210	56,337	56,337	56,337
Investment Income	49,812	29,010	34,393	52,775	23,405	31,044	29,189	20,452
Miscellaneous Income	91,226	52,266	51,822	35,727	284,821	88,180	28,264	147,902
Net Surplus	926,469	498,589	554,560	149,759	493,308	(1,518,184)	(672,048)	(783,665)

	February 2021
Assets	
Current Assets	
Cash and Liquid Capital	1,878,671
Short Term Investments	39,049,288
PMA Partnership	574,941
Accounts Receivable, Net of Allowance	25,897,062
Other Receivables	1,945,023
Inventory	2,988,388
Prepaid Expenses	1,519,711
Total Current Assets	73,853,084
Assets Limited as to Use	
Internally Designated for Capital Acquisitions	1,193,799
Short Term - Restricted	628,945
Limited Use Assets	,
LAIF - DC Pension Board Restricted	1,001,080
DB Pension	18,895,468
PEPRA - Deferred Outflows	8,320
PEPRA Pension	79,568
Total Limited Use Assets	19,984,436
Revenue Bonds Held by a Trustee	2,754,024
Total Assets Limited as to Use	24,561,204
Long Term Assets	27,301,204
Long Term Investment	1,761,791
Fixed Assets, Net of Depreciation	75,486,632
Total Long Term Assets	77,248,423
Total Assets	175,662,711
	1/5,002,/11
Liabilities	
Current Liabilities	4 527 774
Current Maturities of Long-Term Debt	1,537,774
Accounts Payable	6,323,721
Accrued Payroll and Related	10,488,372
Accrued Interest and Sales Tax	364,524
Notes Payable	8,927,628
Unearned Revenue	21,314,925
Due to 3rd Party Payors	2,341,874
Due to Specific Purpose Funds	(25,098)
Other Deferred Credits - Pension	3,045,352
Total Current Liabilities	54,319,072
Long Term Liabilities	
Long Term Debt	37,634,947
Bond Premium	429,098
Accreted Interest	14,244,849
Other Non-Current Liability - Pension	39,799,580
Total Long Term Liabilities	92,108,474
Suspense Liabilities	(7,224,840)
Uncategorized Liabilities	435,628
Total Liabilities	139,638,334
Fund Balance	
Fund Balance	36,159,122
	648,920
Temporarily Restricted	010,520
Temporarily Restricted Net Income	
	(783,665) 36,024,377

	Budget 2/28/2021	Actual 2/28/2021	Budget Expense as a 2 % of Revenue 2/28/2021	Actual Expense as a % of Revenue 2/28/2021
		· · ·		
Total Net Patient Revenue	6,401,459	7,454,855		
Cost of Services				
Salaries & Wages	2,157,534	2,104,702	33.70%	28.23%
Benefits	1,362,051	1,403,697	21.28%	18.83%
Professional Fees	1,496,661	1,928,594	23.38%	25.87%
Pharmacy	181,520	343,360	2.84%	4.61%
Medical Supplies	332,351	445,225	5.19%	5.97%
Hospice Operations	41,565	-	0.65%	0.00%
Athena EHR System	113,946	68,680	1.78%	0.92%
Other Direct Costs	182,442	485,307	2.85%	6.51%
Bad Debt		450,000	0.00%	6.04%
Total Direct Costs	5,868,069	7,229,565	91.67%	96.98%
Gross Margin	533,390	225,290		
Gross Margin %	8.33%	3.02%		
General and Administrative Overhead				
Salaries & Wages	447,004	299,846	6.98%	4.02%
Benefits	345,579	225,528	5.40%	3.03%
Professional Fees	235,452	150,882	3.68%	2.02%
Depreciation and Amortization	368,950	333,225	5.76%	4.47%
Other Administrative Costs	63,278	110,757	0.99%	1.49%
Total General and Administrative Overhead	1,460,264	1,120,238	22.81%	15.03%
Net Margin	(926,874)	(894,948)		
Net Margin %	-14.48%	-12.00%		
Einancing Expanse	217,793	113,408	3.40%	1.52%
Financing Expense	217,795	115,408	5.40%	1.52%
Financing Income	186,890	56,337	2.92%	0.76%
Investment Income	40,468	20,452	0.63%	0.27%
Miscellaneous Income	25,753	147,902	0.40%	1.98%
Net Surplus	(891,556)	(783,665)		







Management Discussion and Analysis

Revenue continues to be robust given strong inpatient days and outpatient visits

- Inpatient days in Feb were 263 compared to budgeted of 170

- Outpatient visits in Feb were 9358 compared to 8519 budgeted for the month

- Salaries are in line with budget

- Professional fees is higher due to COVID testing from Labcorp

- Gross margins were consistent with historical performance and lower due to lessor number of days in february and corresponding lower revenue

- Strain on AR continues with cleaning up of old AR and providing more bad and doubtful reserves

- Cash is trending lower due pending collections from medicare

- AR days trending lower with increased collection efforts and new Rev Cycle Director in place