SEQUENCE OF PEDIATRIC NEUROLOGY EXAM – 2 YEARS AND UNDER

POSTURE (RESTING)	With the hand held or room camera allow the provider to inspect the infant lying undressed and dudisturbed on the exam table. Hypertonia of the flexors is normal of the elbows, hips, and knees during the first few months of life and decreases markedly during the third month of life. Tone in the neck and extremities increases between 8 –12 months.	Undress the baby down to the diaper.
PASSIVE TONE	Evaluation of passive tone is accomplished by determining the resistance to passive movements of the various joints with the infant awake and not crying. With the hand held or room camera allow the provider to view the passive flapping of the hands and feet to ascertain muscle tone. Scarf sign – with the infant sustained in a semireclining position, the telepresenter takes the infant's hand and pulls the arms across the infant's chest toward the opposite shoulder, allowing the provider to assess the position of the elbow in relationship to the midline. Hypotonia is present if the elbow passes the midline.	
ACTIVE TONE	To allow the provider to assess the infants traction response with the room camera. The telepresenter will sit down facing the infant, placing their thumbs in the infant's palms and fingers around the wrists, and gently pulls the infant from the supine position. In the healthy infant less than 3 months of age, the palmer grasp reflexes becomes operative, the elbows tend to flex, and the flexor muscles of the neck are stimulated to raise the hand so that even in the full-term neonate the extensor and flexor tone are balanced, and the head is maintained briefly in the axis of the trunk. The test is abnormal if the head is pulled passively and drops forward, or if the head is maintained backward. The infant's head may be rotated laterally and extended when the infant is in the resting prone position with abnormal hypertonia.	In toddlers or infants, inequalities of tone to pronation and supination of the wrist, flexion and extension of the elbow, and dorsi and plantar flexion of the ankle.
PRIMITIVE REFLEXES	With the room camera, the telepresenter will assist the provider to assess the following reflexes: **Flexion Reflex** – the THNC will unpleasantly stimulate the dorsum of the infants foot. Dorsiflexion of the great toe and flexion of the ankle, knee and hip should occur. **Moro Reflex** – is elicited by a sudden dropping of the baby's head in relation to its trunk. However, can also be elicited by hitting the infant's pillow with both hands. The infant opens the hands, extends and abducts the upper extremities, and then draws them together. Reflex is present in all newborns and fades between 3 to 5 months of age. Its persistence beyond 6 months of age, or absence or diminution during the first few weeks of life indicates neurologic dysfunction. **Tonic Neck Response** – THNC will rotate the infant's head to the side while maintaining the chest in a flat position. A positive is extension of the arm and leg on the side toward which the face is rotated, and flexion of the limbs on the opposite side. Tonic neck responses can be elicited for a long as 6 to 7 months. **Righting Reflex** – With the infant in the supine position, the THNC turns the head to one side. The healthy infant rotates the shoulder in the same direction, followed by the trunk, and	

	finally the pelvis. If the shoulders, trunk and pelvis rotate simultaneously, and the infant rolls like a log, this is always abnormal. **Palmar and Planter Grasp Reflexes** – Are elicited by pressure on the palm or sole. Generally, the plantar grasp reflex is weaker than the palmar reflex. The palmar grasp reflex becomes weak and inconsistent between 2 to 3 months of age, when it is covered up by voluntary activity. Absence of the reflex before 2 to 3 months of age, persistence beyond that age, or a consistent asymmetry is abnormal. **Vertical Suspension** – The THNC suspends the child with his or her hand under its axillae, allowing the provider to assess the position of the lower extremities. Marked extension or scissoring (legs abnormally cross) is and indication of spasticity. **Landau Reflex** – The THNC lifts the infant with one hand under the truck, face downward. Normally, a reflex extension of the vertebral column occurs, causing the newborn infant to lift the head to slightly below the horizontal, which results in a slightly convex upward curvature of the spine. With hypotonia, the infant's body tends to collapse into an inverted U shape. Buttress Response – The THNC places the infant in the sitting position and displaces the center of gravity with a gentle push on one shoulder. The infant extends the opposite arm and spreads the fingers. The reflex normally appears at approximately 5 months of age. Delay in its appearance and asymmetries are significant. **Parachute Response** – The THNC will suspend the child horizontally about the waist, face down and suddenly project the child toward the floor. Consequently extension of the arms and spreading of the fingers will occur in children between 4 and 9 months of age.	

SEQUENCE OF PEDIATRIC NEUROLOGY EXAM – 2 YEARS AND UP

Gait - For the child that appears grossly "normal," age 4 years and older	Straightaway, instruct the child to walk normally for one end of room to other. Instruct child to: • Walk on tiptoes away from the telepresenter. • Walk on heels toward the telepresenter. • Tandom walking- heel touching toe, as if on tightrope, away then toward the telepresenter. • Run in hallway (may have child retrieve ball).	The approach to an exam with a child will be more playful, whereas the adolescent should be approached as an adult.
Balance / Coordination	Instruct the child to stand with feet together, arms straight extended out in front, eyes closed. Provider will be checking for weakness, swaying and/or rotation of arms.	
Cranial Nerves	The olfactory nerve (I) is checked by asking the child to identify an odor on a piece of cotton with the eyes closed. Eye charts, the pediatric "E" or the Snellen depending on age, are used to evaluate the visual acuity of the optic nerve (II). The oculomotor, trochlear, and abducens nerves (III, IV, and VI) are usually are tested together. Telepresenter will instruct the child or the adolescent to follow an object or the telepresenter's fingers as they move it in all directions. If there is oculomotor nerve involvement, the child will have difficulty looking up, down, or toward the nose. Check for ptosis (drooping) of the eyelid.	Visual acuity is tested in the older child, prior to their initial exam or with each neurology visit if health status is deteriorating, by standard means.
Motor - tone	Muscle tone is examined by manipulating the major joints and determining the degree of resistance. The telepresenter will hold child's extremity with two joints in between telepresenter's hands, evaluate fluid mobility of limbs.	
Motor - strength	Shrug Shoulders Upper arms (elbows out like wings), biceps (make a muscle), triceps (push telepresenter away), wrist flexion / extension against resistance, finger flexion / extension against resistance. Thighs (point knee to ceiling against resistance), kick leg out against resistance, hold ankle up and then down against resistance. Tone – holding extremity with two joints	
Deep tendon reflexes - Must use heavy, rubber hammer, not plastic tomahawk	Deep tendon reflexes are elicited by tapping briskly with a reflex hammer on a bony prominence, such as the radial styloid process or a tendon. This action stretches the muscle slightly and results in a contraction (reflex), which is graded on a scale from one to four. A score of two is normal response; one is slow, and both three and four are abnormally brisk responses. **Brachioradialis** – elicited by striking the styloid process of the radius. The patient's hand should rest on the abdomen or the lap, with the forearm partly pronated. Strike the radius with the reflex hammer, about 1 to 2 inches above the wrist. Watch for flexion and supination of the forearm. **Biceps** – The patient's arm should be partially flexed at the elbow with palm down. Place your thumb or finger firmly on the biceps tendon. Strike with the reflex hammer so that the blow is aimed directly through your digit toward the biceps tendon. Abnormal response suggests involvement of cervical nerves V and VI. **Triceps** – Flex the patient's arm at the elbow, with the palm toward the body, and pull it slightly across the chest. Strike the triceps tendon above the elbow. Use a direct blow from directly behind it. Watch for contraction of the triceps muscle and extension of the elbow. If you have difficulty getting the patient to relax, try supporting the arm at the elbow at a 90 degree angle, with the shoulder perpendicular and the forearm parallel to the body. Abnormal response suggests involvement of cervical nerves VI, VII, and VII. **Knees (patellar tendon reflex)** –With the patient sitting on the exam table,	

	knees flexed and relaxed, briskly tap the patellar tendon just below the patella. A hand on the patient's anterior thigh lets you feel this reflex. If you have difficulty getting the patient to relax, have the patient sit back on the exam table so that the back of the lower leg is resting on the exam table while maintaining a flexed knee. Abnormal response suggests involvement of lumbar nerves II, III, and IV. **Ankles (Achilles Tendon)** – With the patient sitting, dorsiflex the foot at the ankle. Persuade the patient to relax. Strike the Achilles tendon. Watch and feel for planter flexion at the ankle. Reflecting the function of sacral nerves I and II. **Abdominals** – Use a key, the wooden end of a cotton-tipped applicator, or tongue blade to lightly but briskly stroke each side of the abdomen toward the midline, above (T8, T9, T10) and below (T10, T11, T12) the umbilicus. Patient must lay flat, legs hanging off bed. Allow the provider to note the contraction of the abdominal muscles and deviation of the umbilicus toward the stimulaus. **Clonus at ankles** – Clonus is a regular repetitive movement of a joint elicited by a sudden stretching of the muscle and maintaining the stretch. It is most easily demonstrable at the ankle by dorsiflexion of the foot. Clonus represents increased reflex excitability. Several beats of ankle clonus can be demonstrated in some healthy newborns and in some tense older children. A sustained ankle clonus is abnormal at any age. **Babinski** (The Planter Response)– The planter surface of the foot is stimulated with a sharp object, such as the tip of a key, from the heel forward along the lateral border of the sole, crossing over the distal ends of the metatarsals toward the base of the great toe. Immediate dorsiflexion of the great toe and subsequent separation (fanning) of the other toes constitutes a positive response. Stimulation of the outer side of the foot is less objectionable and can be used in children who cannot tolerate the sensation of having their soles stimulated. The response is identical. Care should be taken not to use too much pressure when eliciting the Babinski's reflex, because it can cause a voluntary withdrawal in normal children that may be confused with the pathologic Babinski's response.	
Sensation	With tuning fork: light touch / cold each extremity, trunk front and back. With tuning fork: vibration, distal extremities.	
Hearing	With tuning fork: hold about 2 inches from each ear – ask patient, "Can you hear the buzzing?"	
Ataxia	Patient's Finger-to their nose-to telepresenter's finger, outstretched, full extension of elbow. Toe – to telepresenter's finger, finger held inches above straight leg.	

Pediatric Otolaryngology Presenting

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for a TeleOtolaryngology visit and to outline equipment, procedures, and physical exam requirements for working with an Otolaryngologist via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1 **Otoscope**: device used to look in ears

3.2 **Tinnitus:** subjective noise sensation, often described as ringing, heard in one or both ears

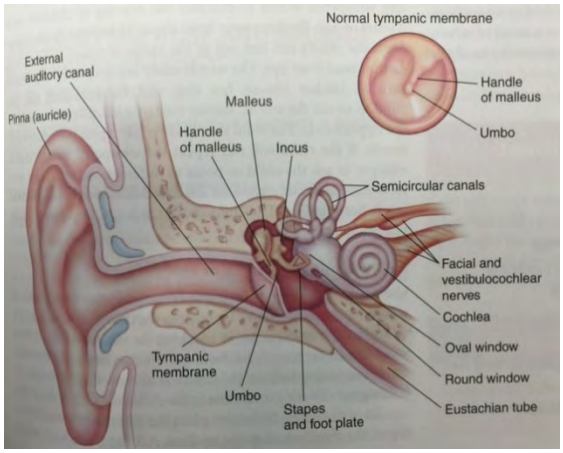
3.3 **Vertigo**: a sensation that a person or objects around the person are moving or spinning; usually stimulated by movement of the head

3.4 **Rhinorrhea:** excessive mucous secretion from the nose.

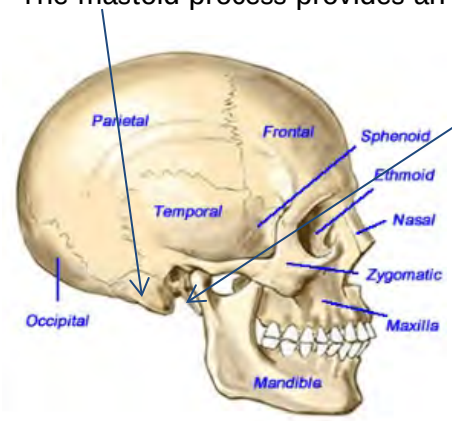
3.5 **Epistaxis**: nose bleed

3.6 **Pinna**: the largely cartilaginous projecting portion of the external ear

3.7 **Tragus**: the prominence in front of the external opening of the outer ear



3.8 **Mastoid Process**: one of the two projections situated behind the ear. The mastoid process provides an attachment for certain muscles of the neck.



3.9 **Styloid Process:** one of two projections situated behind the ear. The temporal styloid process serves as an anchorage for muscles associated with the tongue and pharynx.

3.10 Polycom: refers to the clinical video conferencing device or software. Used interchangeably with Codec

4. PROCEDURE BODY

All clinical staff responsible for the presenting of patients to ENT Services or any provider who may need a component of a pulmonary history or physical exam shall be proficient in providing ENT exam data via TeleHealth technologies and be appropriately trained.

4.1. Otolaryngology Referral Process:

a. In order to schedule a TeleOtolaryngology consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

a. Clean and prepare exam table for patient

b. Turn on lights appropriate to provide lighting for patient's face and affected area(s). Obtain an exam light if necessary

c. Prepare technology to include: digital still camera, otoscope, hand held video camera, digital stethoscope and Polycom **one hour prior** to the TeleHealth visit.
   - **Make a test call at this time if system has not been used recently or desired**

d. Delete all picture from the memory care in the camera if pictures are stored

e. Review and have readily available pertinent patient information for the exam

4.3. Pre-Assessment Physical

a. When escorting patient from the waiting area to the TeleHealth room, obtain height and weight if applicable ask patient if they brought any required forms provided by clinician office via mail prior to appointment and obtain height and weight if applicable

b. Inquire as to whether or not the patient has ever "seen the doctor on a television screen for an appointment" before

c. If the patient answers "**No**":
   - Explain TeleHealth
   - How it works – two way audio and video over a secure network
   - That the telepresenter will use cameras to show clear pictures of the patient's condition
   - Emphasize that this is secure and private and that no one else is able to see and hear the visit (just as if this were an in person visit)
   - That the patient has the right to request that a resident or any other person who is in the room on the provider's end to leave
   - That the telepresenter will stay in the room with the patient during the visit to run the equipment and help the provider, but that if the patient desires private time with the provider, they can request for the telepresenter to step out of the room

- The patient should always ask the provider to repeat anything the patient did not hear or understand

d. Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR

e. Complete the ENT Medical History form

f. Verify medications (include dose and frequency), update if necessary. Also verify allergies, update if necessary.

g. Have the patient remove clothing, jewelry, and make-up as necessary to obtain adequate view. Offer the patient a gown if necessary

h. Frame the patient

i. Take pictures of the affected area(s) according to the SIU Photography Protocol and upload to the SIU File Transfer system

j. **Fax** any patient information **not** documented in the EHR to the provider's office staff prior to the start of the appointment

k. Call the provider's office to inform them that the patient is ready and ask them the staff to check the patient in to the provider's schedule

l. Wait with the patient for the provider to call on the video system.

4.4. Assisting Provider with Physical Exam

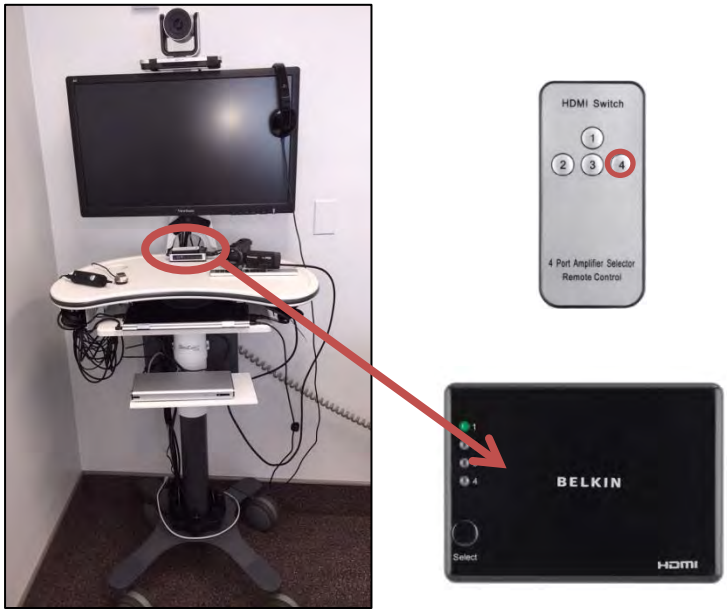
a. Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

b. Ensure that the patient is always framed appropriately so the provider can see all aspects of the patient interaction.

c. While the provider is talking to the patient and taking a history, make sure that the hand-held video camera is convenient and available for a live exam

d. When the provider asks for additional assistance with examining and viewing the patient via the hand-held video camera:

- Switch the HD input by using the "HDMI Switch" remote and selecting 4



- Press the camera/play button on the camera

- Narrate the location and position of the image that is being displayed i.e., 'right hand', 'left lower leg', etc.
- Slowly move the video camera over the requested areas and wait for the Otolaryngologist to direct the exam
- When finished with the live exam, set the camera down on the cart and return to telepresenting requirements of input 1 by pressing the 1 or 2 on the HDMI switch remote.

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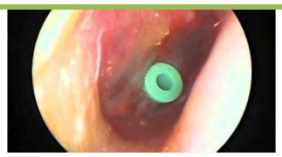
4.2 Physical Exam

4.2.1. Ears

Inspection

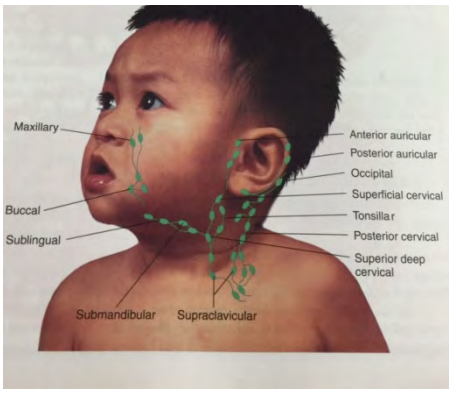
- Observe the relationship of the ears to the rest of the face.
- Pinna: shape and position to the rest of the face.
  - If the external ear is displaced outward and anteriorly, consideration may be given to a diagnosis of mastoiditis, external otitis or cellulitis
- Canal: discharge, swelling, redness, wax, foreign bodies
- Tympanic membrane: color, light reflex, landmarks, bulging or retraction, perforation, scarring, air bubbles, fluid leve
  - If necessary, the caregiver can hold the child on his or her lap. The child's head should be turned to the side and securely braced against the caregiver's shoulder or chest.
  - When viewing the internal ear canal pull the pinna **down** and back for children **under 3** and **up** and back for children **over 3**

Visual of tube placement



- Hearing Assessment
  - Stand approximately 2 feet behind patient and make a sound (with rattle, bell, paper) and have parent observe for reaction to noise
  - Gently occlude and rub the external auditory canal of the non-tested ear.
  - Ask the child to repeat words that would be easily recognized (e.g popsicle, hot dog) while standing approximately 12 inches away from child's ear while also out of visible range to prevent reading lips. Exhale completely prior to testing with whispered voice
  - If the whisper test fails, perform Weber and Rinne tests with a tuning fork

Palpation



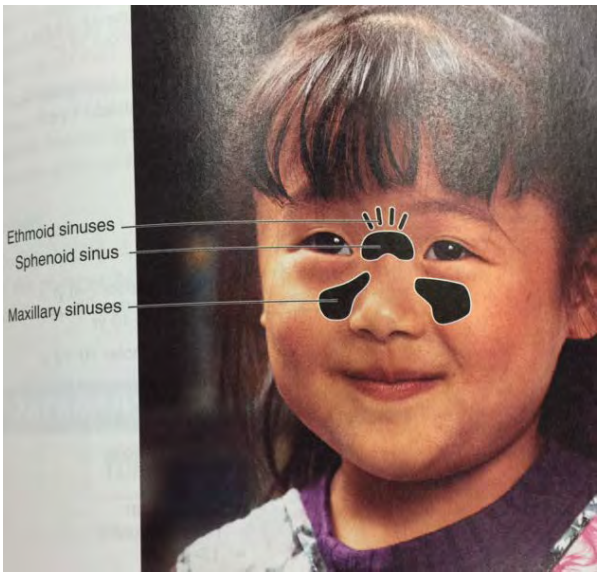
- Tenderness over tragus or on manipulation of the pinna
- Tenderness on tapping of mastoid process
- Size and tenderness of pre, post auricular and occipital nodes
    - Slide fingerpads gently over lymph node chains
    - Firm, clearly defined non-tender, moveable nodes up to 1cm are common in young children

4.2.2. Nose Inspection

a. External: inflammation, deformity, discharge or bleeding

b. Internal: color of mucosa, edema, deviated or perforated septum, polyps, bleeding

c. Observe nasal versus mouth breathing



Palpation

a. Sinus and nasal tenderness

Percussion

a. Sinus and nasal tenderness

4.2.3. Mouth and Throat

Inspection

a. Lips: color, lesions, symmetry Canal: discharge, swelling, redness, wax, foreign bodies 2+

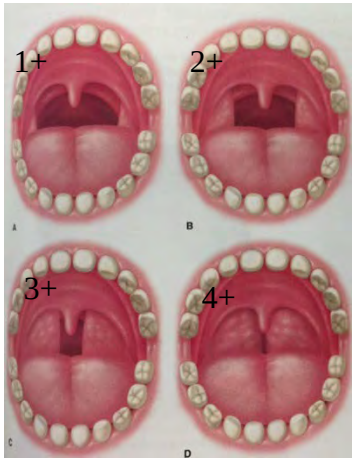
b. Oral cavity: breath odor, color, lesions of buccal mucosa

c. Teeth and gums: redness, swelling, caries, bleeding

d. Tongue: color, texture, lesions, tenderness of floor of mouth 3+ 4+

e. Throat and pharynx: color, exudates, uvula, tonsillar symmetry and enlargement

a. Tonsil size is graded from 1+ to 4+in relation to how much of the airway is obstructed (1+ to 2+ is normal with 3+ being common with infections such as strep)



4.2.4. Neck

Inspection

a. Symmetry

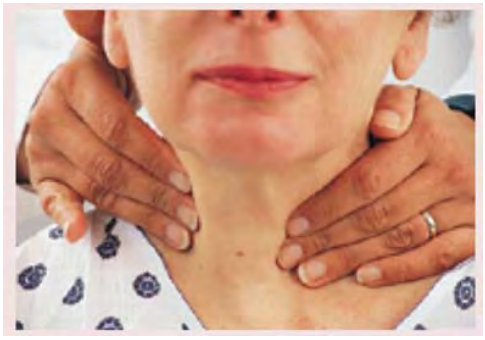
b. Swelling

c. Masses

d. Active range of motion

e. Thyroid enlargement

- **If the provider requests the TeleHealth nurse palpate the thyroid:**



Step 1: Stand behind the patient and ask the patient to slightly flex the neck to relax the muscles.

Step 2: Place the fingertips of both hands on either side of the trachea just below the cricoid cartilage.

Step 3: Ask the patient to sip water as before.

Step 4: Feel the thyroid isthmus rise up under the finger pads. Please note it is often not palpable.

Step 5: Displace the trachea to the right with the fingers of the left hand; with the right- hand fingers, palpate laterally for the right lobe of the thyroid in the space between the displaced trachea and the relaxed sternomastoid muscle. Find the lateral margin.

Step 6: In a similar fashion, follow step 5 to examine the leftlobe.

Step 7: Report surface (lumpy or hard), enlargement (right > left), consistency of the gland, along with any nodules or tenderness.

4.9. Post Physical Exam

a. Reframe the patient so the patient and provider have good positions for their closing discussion.

b. Move out of the direct view of the video system.

c. Once physician has ended the appointment, turn off all equipment used during exam

d. Provide any pamphlets, handouts, or other materials as requested by the Otolaryngologist located in the SIU TeleHealth Patient Materials binder (provided by the SIU TeleHealth Clinical Coordinator)

e. Assist the patient with dressing or any other needs and assist them in exiting the room

4.10. Post Consult Considerations

a. Reinforce any patient teaching.

b. Assist the patient with instructions for using medications

c. Make sure the patient has a follow-up appointment if needed and a business card for the provider

d. Give the patient the SIU TeleHealth Patient Satisfaction Survey and if possible, have them complete this form prior to leaving and return with the TeleHealth Technology Report Form.
   - If not, please ask the patient to complete this survey and return in one of the envelopes provided by SIU TeleHealth.

a. Enter TeleHealth Facility Fee charge in billing system.

b. Fill out TeleHealth Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

c.

5. ADDITIONAL RESOURCES

5.1. References:

London, Marcia L., Ladewig, Patricia W., Ball, Jane W., Bindler, Ruth C., and Cowen, Kay J. (2011). ***Maternal & Child Nursing Care (***3rd ed.). New York: Pearson.

5.2. Additional Questions

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

Psychiatry Presenting

1. Scope

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth.

2. Purpose

2.1. This guideline is a template for obtaining and setting up equipment for a TeleHealth Psychiatry consult. The intent of this guideline is to provide direction to the visit in order to improve efficiencies for the patient, provider, and the TeleHealth Nurse Clinician.

3. Document Body

3.1. Guidelines

a. TeleHealth consults are appropriate as indicated by the referring or consulting providers.
b. The types of patients who may be scheduled for TeleHealth Psychiatry have various mental health symptoms and issues, such as depression, anxiety, behavioral disorders (ADHD), and the like. Generally, they are on prescriptive medications. The decision to see a patient via TeleHealth is reserved to the mental health provider and the patient.

3.2. Providers

1. Any SIU Behavioral services provider eligible to see patients in person who has received appropriate training and orientation to the use of Telehealth.

4. Procedure Body

4.1. Pre-Consult Consideration:

a. **New Patients**: All new patients receive a packet of information before the visit either in the mail or when they check in at the clinic. Appointment coordinators take care of getting this information to new patients. This packet includes **Information Review**, **Grievance Process/ Informed Consent/Client Bill of Rights**, **Confidentiality**, **Outpatient Services**, **Outpatient, Emergency & Inpatient Services Information**, **History sheet** , **Child and Adolescent History Form.**
b. Prepare technology, room camera.

c. Review patient Combined Medical Record (CMR) and appointment schedule for prior notes and appointments with TeleHealth provider or referring provider notes.
d. Arrange chairs (two) next to each other in case there are two people at a visit. Present camera settings-one close up of each chair and one view of both chairs together (if there are two people at a visit you can show both people together to show interactions during visit).
e. Observe patient as they walk to exam room for gait, posture, affect, care of clothing, smell (alcohol, body odor), hand tremor. Relate this to mental health provider after visit, after patient has left room or you can mention during visit when appropriate. For example, you might say "I noticed you were a little unsteady when you were walking".
f. Complete vital signs to include: blood pressure, pulse, respirations, and weight. Enter results in the EHR
g. Verify medications, dose and allergies in EHR and update if needed.
h. Instruct patient to fill out PHQ-9 form; enter results in document manager under the behavioral health provider.
i. **Established Patients**: Every 12 months, patients may need to sign an electronic copy of Grievance Process/Informed Consent/Client Bill of Rights and Confidentiality. H.I.M. (Health Information Management) identifies the patients that need these forms, Behavioral Health staff will load consents, under the Behavioral Health provider in document manager prior to TeleHealth consult. The patient will need to sign consents when the provider and patient are connected over the video system prior to the start of the TeleHealth consult.
j. The THN will obtain the needed signature during the patient appointment. Signatures that may be needed are:

    i. **Treatment plan**: Treatment plan will be on the front of the chart, this form is initiated by the mental health provider at the first consult and is to be signed by the patient in the appropriate area on the form. Leave form on front of chart to be filed by medical records.
    ii. **Grievance Process/ Informed Consent**: This is in the paperwork the patient receives as a new patient and every 12 months thereafter. Have the patient sign in appropriate area; give patient yellow copy. Leave original form on front of chart for medical records to file.
    iii. **Confidentiality**: Follow same directions as "initial consent"
    iv. **Medication Consent**: When a patient starts a new medication, consent for that medication needs to be signed by the patient during the TeleHealth consult. Any questions about the medication are to be directed to the prescribing provider. Drug information may be printed from Micromedex (located on the SIU TeleHealth home page) and given to the patient.

4.2. Conducting a TelePsychiatry Consult

1. Ask patient if they prefer that you leave the room for the visit. Do this for every visit, even if the patient has had visits in the past where he/she had you stay in the room. If patient requests that you leave the room, wait outside the TeleHealth exam room during the visit, so that you are available during and after the visit.
2. Once a video connection is established and consent(s) are signed, the TeleHealth Nurse leaves the room for the consult. Patient should be framed with the room camera, showing a wide picture the gives the provider a view of the upper half of body, so that posture and non-verbal communication can be assessed. If another person has accompanied patient to the consult, place chairs together, pan room camera out to show both people allowing provider to assess interactions during visit.
3. Any medications ordered during the visit will be phoned in by the behavioral health provider or mailed to the pharmacy if they have to be written orders.
4. If labs are ordered to be done the day of the visit, behavioral health staff will enter the lab orders in the computer. The TeleHealth nurse will direct patient to the lab reception desk to check in for lab appointment.

4.3. Post Consult Considerations

1. Assist patient with **Release of Information Authorization** forms:

2. If the mental health provider orders the patient to be off work for a period of time, the **Return to Work / Physical Capability Report** will be completed by the provider using form printer. When form is completed the TeleHealth Nurse will print the form from CMR and give to patient.

3. Enter facility fee charge in billing system.

4. Fill out Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

5. Additional Resources

5.1. Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

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Patient Copy: Depression Questionnaire

For:

Over the last two weeks, how often have you been bothered by any of the following problems?	**Not at all**	**Several days**	**More than half the days**	**Nearly every day**
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping too much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself, or that you are a failure, or have let yourself or your family down	0	1	2	3
Trouble concentrating on things, Such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed? Or the opposite, being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Total _____ = _____ + _____ + _____ + _____

If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all ____ Somewhat difficult ____ Very difficult ____ Extremely difficult ____

SIU HealthCare.

Patient Copy: PHQ-9 Depression Scoring

For:

PHQ-9 Scoring Tally Sheet

Patient Name _____ **Date** _____

1. Over the last 2 weeks, how often have you been bothered by any of the following problems? Read each item carefully, and circle your response.	Not at all	Several days	More than half the days	Nearly every day
	0	1	2	3
a. Little interest or pleasure in doing things				
b. Feeling down, depressed, or hopeless				
c. Trouble falling asleep, staying asleep, or sleeping too much				
d. Feeling tired or having little energy				
e. Poor appetite or overeating				
f. Feeling bad about yourself, feeling that you are a failure, or feeling that you have let yourself or your family down				
g. Trouble concentrating on things such as reading the newspaper or watching television				
h. Moving or speaking so slowly that other people could have noticed. Or being so fidgety or restless that you have been moving around a lot more than usual				
i. Thinking that you would be better off dead or that you want to hurt yourself in some way				
Totals				

2. If you checked off any problem on this questionnaire so far, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult
0	1	2	3

SIU HealthCare
Exceptional Medicine. Partners in Care.

Pulmonology Presenting

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for a TelePulmonology visit and to outline equipment, procedures, and physical exam requirements for working with a Pulmonologist via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1 **Rales**: A crackle most often heard on inspiration and tends to be brief and non-continuous and is caused by the passage of air throughout the small airways in the lungs that have become sticky with fluid, mucous, or pus. If the rales are coarser and lower pitched, this may indicate the origin as higher in the respiratory tree.

3.2 High-pitched sounds are called **sibilant**.

3.3 Lower pitched sounds are called **sonorous**.

3.4 **Rhonch**i: Deeper, more pronounced rumbling during expiration and likely to be continuous and less discrete than rales. Rhonchi tend to clear with coughing, whereas, rales do not. Rhonchi are caused by the passage of air through a larger airway obstructed by thick secretions, new growth, or external pressure. The sibilant rhonchi arise from smaller bronchi; the sonorous arise from larger bronchi as in tracheobronchitis.

3.5 **Wheeze**: Is a continuous, high-pitched, musical and/or whistling and is heard throughout inspiration and expiration. If wheezing is heard bilaterally, it may be caused by bronchospasms of asthma or acute and chronic bronchitis.

3.6 **Friction Rub**: Occurs outside of the respiratory tree and has a dry, crackly, grating, low-pitched sound that is heard on inspiration and expiration. If the friction rub is heard over the heart or lungs, it is caused by inflamed, toughened surfaces that rub together. Friction rub over the pericardium suggest pericarditis, whereas, a friction rub over the lungs may indicate pleurisy.

3.7 **Codec**: is the clinical video conferencing system.

3.8 **Edema**: 1+= slight pitting: no visible change in the shape of the leg (skin indents 2mm), 2+= somewhat deeper pitting; no marked change in the shape of the leg (skin indents 4mm), 3+= pitting is deep; leg is full and swollen (skin indents

6mm), 4+= pitting is very deep; leg is very swollen (skin indents 8mm +).

3.9 Aortic valve: is at the second right intercostal space at the sternal border.

3.10 Pulmonic valve: is at the second left intercostal space at the sternal border.

3.11 Secondary aortic: is at the third left intercostal space at the sternal border.

3.12 Tricuspid valve: is at the fifth left intercostal space at the sternal border.

3.13 Point of Maximal Impulse (PMI): is at the apex; fifth left intercostal space at the mid-clavicular line.

3.14 Epigastric area: is at the tip of the sternum.

3.15 Polycom: refers to the clinical video conferencing device or software. Used interchangeably with Codec.

4. PROCEDURE BODY

All clinical staff responsible for the presenting of patients to Pulmonary Services or any provider who may need a component of a pulmonary history or physical exam shall be proficient in providing pulmonary exam data via TeleHealth technologies and be appropriately trained.

4.1. Pulmonology Referral Process:

a. In order to schedule a TelePulmonology consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

a. Clean and prepare exam table for patient

b. Turn on lights appropriate to provide lighting for patient's face and affected area(s). Obtain an exam light if necessary

c. Prepare technology to include: digital still camera, otoscope, hand held video camera, digital stethoscope and Polycom **one hour prior** to the TeleHealth visit.

- **Make a test call at this time if system has not been used recently or desired**

d. Delete all picture from the memory care in the camera if pictures are stored

e. Review and have readily available pertinent patient information for the exam

f. Verify any recent x-rays, CT scans, or any other radiographic images are sent to the clinician. **If possible, send these electronically via Kodak or**

Stentor.

4.3. Pre-Assessment Physical

a. When escorting patient from the waiting area to the TeleHealth room, obtain height and weight if applicable ask patient if they brought any required forms provided by clinician office via mail prior to appointment and obtain height and weight if applicable

b. Inquire as to whether or not the patient has ever "seen the doctor on a television screen for an appointment" before

c. If the patient answers "**No**":
   - Explain TeleHealth
   - How it works – two way audio and video over a secure network
   - That the telepresenter will use cameras to show clear pictures of the patient's condition
   - Emphasize that this is secure and private and that no one else is able to see and hear the visit (just as if this were an in person visit)
   - That the patient has the right to request that a resident or any other person who is in the room on the provider's end to leave
   - That the telepresenter will stay in the room with the patient during the visit to run the equipment and help the provider, but that if the patient desires private time with the provider, they can request for the telepresenter to step out of the room
   - The patient should always ask the provider to repeat anything the patient did not hear or understand

d. Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR

e. Complete the SIU Pulmonary Medical History form

f. Verify medications (include dose and frequency), update if necessary. Also verify allergies, update if necessary.

g. Have the patient remove clothing, jewelry, and make-up as necessary to obtain adequate view. Offer the patient a gown if necessary

h. Frame the patient

i. Take pictures of the affected area(s) according to the SIU Photography Protocol and upload to the SIU File Transfer system

j. **Fax ((217)545-4734)** any patient information **not** documented in the EHR to the provider's office staff prior to the start of the appointment

k. Call the provider's office to inform them that the patient is ready and ask

them the staff to check the patient in to the provider's schedule

l. Wait with the patient for the provider to call on the video system.

4.4. Assisting Provider with Physical Exam

a. Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

b. Ensure that the patient is always framed appropriately so the provider can see all aspects of the patient interaction.

c. While the provider is talking to the patient and taking a history, make sure that the hand-held video camera is convenient and available for a live exam

d. When the provider asks for additional assistance with examining and viewing the patient via the hand-held video camera:

a. Switch the HD input by using the "HDMI Switch" remote and selecting 

- Press the camera/play button on the camera

- Narrate the location and position of the image that is being displayed i.e., 'right hand', 'left lower leg', etc.

- Slowly move the video camera over the requested areas and wait for the Pulmonologist to direct the exam
- When finished with the live exam, set the camera down on the cart and return to telepresenting requirements of input 1 by pressing the 1 or 2 on the HDMI switch remote.

4.4.1 Exercise Oximetry Testing

e. Assess pulse and oxygen levels before, during, and after exercise, with or without oxygen based on the patient's needs.

f. Patient should keep pulse oximeter on during the entire process. The pulse oximeter is applied to a finger while the patient is sitting. Note: Accuracy can be affected by decreased peripheral perfusion, ambient light, I.V. dyes, nail polish, deeply pigmented skin, cold extremities, hypothermia, patients in sickle cell crisis, jaundice, severe anemia, and use of antibiotics such as sulfas.

g. Record the following:

◊ Pulse.

◊ SaO2 while resting/sitting.

◊ After walking 300 or any distance the patient can tolerate.

◊ Immediately after walking when the patient sits down in the TeleHealth exam room.

◊ After one minute of rest.

◊ After five minutes of rest.

h. Record oxygen saturation and pulse under the Enter results in the EHR. Indicate whether the results were at rest or during exercise.

4.5. Spirometry: assessing the number of liters per minute the patient can exhale. For the best results, the patient needs to (use formal spirometry testing if available, if this is not available, use a handheld incentive spirometer) :

a. Stand and exhale the air out of their lungs.

b. Take a deep breath (expanding their rib cage as much as possible and hold it).

c. Seal their lips tightly around disposable mouth piece of the spirometer and exhale as fast and as forcefully as they are able. Similar to the first puff to blow up a balloon.

4.6. Assess for Edema. Take photos with camera ahead of time. Record positive results in PHI transfer system:

Step 1: how far up the leg does it go?

Step 2: Severity of edema, (1-4+) pitting.

Step 3: record in PHI transfer system if edema present.

4.7. Assess for clubbing of the fingernails.

a. Record positive results in SIU TeleHealth PHI transfer system.

- When assessing for clubbing, check the angle of the nail base. Normal nail bases are generally flat or slightly curved. The "clubbed" nail base appears raised and rounded take photos with the video camera if abnormality is noted.

4.8. Lungs: with the patient's posterior side to the room camera, place limited pressure on the digital stethoscope :

Step 1: Position patient so the posterior side is to the room camera.

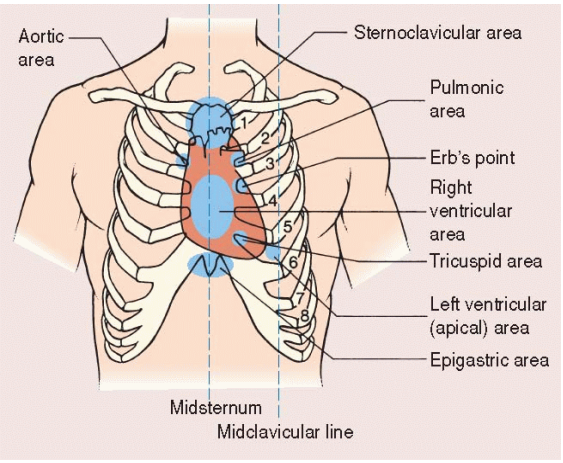
Step 2: Place limited pressure with the digital stethoscope at the six posterior lung fields for two complete inspirations and expirations.

Step 3: Begin with the upper lobes of the lung, moving the diaphragm of the stethoscope in a ladder-like pattern, from one side to the other. This will allow the provider to identify patterns of breath sounds and compare symmetric areas of the lungs.

Step 4: Position patient with anterior side facing the room camera. Use the digital stethoscope to auscultate two anterior lung fields.

Heart: with the patient's anterior side to the room camera, apply limited pressure to the digital stethoscope to auscultate:

- Aortic valve
- Pulmonic valve
- Secondary aortic
- Tricuspid valve
- Point of Maximal Impulse (PMI)
- Epigastric area



Watch the provider for cues to move to the next landmark.

4.9. Post Physical Exam

a. Reframe the patient so the patient and provider have good positions for their closing discussion.

b. Move out of the direct view of the video system.

c. Once physician has ended the appointment, turn off all equipment used during exam

d. Provide any pamphlets, handouts, or other materials as requested by the pulmonologist located in the SIU TeleHealth Patient Materials binder (provided

by the SIU TeleHealth Clinical Coordinator)

e. Assist the patient with dressing or any other needs and assist them in exiting the room

4.10. Post Consult Considerations

a. Reinforce any patient teaching.

b. Assist the patient with instructions for using medications

c. Make sure the patient has a follow-up appointment if needed and a business card for the provider

d. Give the patient the SIU TeleHealth Patient Satisfaction Survey and if possible, have them complete this form prior to leaving and return with the TeleHealth Technology Report Form.
   - If not, please ask the patient to complete this survey and return in one of the envelopes provided by SIU TeleHealth.

a. Enter TeleHealth Facility Fee charge in billing system.

b. Fill out TeleHealth Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

5. ADDITIONAL RESOURCES

5.1. References:

Bickley, L.S. and Szilagyi, P.G. (2007). *Bates' guide to physical examination and history taking* (9th ed.). Philadelphia: Lippincott Williams & Wilkins.

5.2. Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

FOR ALL PULMONARY/SLEEP PATIENTS

SIU HealthCare
Division of Pulmonary & Critical Care Medicine
Medical History

Name_____ DOB_____

Date_____SIU#_____

1. Do you have a **primary care** physician? ***If so, please give FIRST & LAST name, ADDRESS and phone number of the doctor.***

2. Were you referred by a physician? ***If so, please give FIRST & LAST name, ADDRESS and phone number.***

3. Does anyone in your family have heart or lung disease? **YES** **NO**
   Relationship_____
   Problem _____

4. Did your trouble with your lungs begin in childhood? **YES** **NO**
   If so, describe _____
   _____

5. Did you miss school because of lung problems? **YES** **NO**
   If so, how often _____

6. Smoking history: never smoked_____
   age started _____ age stopped _____ amount smoked_____

7. List occupations

8. List hobbies

9. List your traveling outside of the midwest

10. Do you have hayfever (e.g. itchy eyes, nose and runny nose)? **YES** **NO**
    If so, what time of the year _____

Name_____ DOB_____ SIU#_____

11. Do you have allergies? If so, list allergies. **YES** **NO**

12. Have you had any of the following?

	YES	NO	IF SO, WHEN	RESULTS
ALLERGY SKIN TESTS	____	____	_____	_____
PULMONARY FUNCTION	____	____	_____	_____
CHEST X-RAY	____	____	_____	_____
TB SKIN TEST	____	____	_____	_____

13. Do you?

	YES	NO	IF SO, WHEN	AMOUNT AND/OR COLOR
HAVE A COUGH	____	____	_____	_____
PRODUCE MUCUS	____	____	_____	_____
COUGH UP BLOOD	____	____	_____	_____
HAVE CHEST PAIN	____	____	_____	_____
HAVE SHORTNESS OF BREATH	____	____	_____	_____
HAVE ANKLES THAT SWELL	____	____	_____	_____

14. Have you had any other health problems?

15. List your surgeries

16. List current medications, time of the last dose, amount of (ex: 50mg) and how taken? **(OR bring in a complete list or the actual bottles of medication)**

17. Describe your current problem

SIU HEALTHCARE

Division of Pulmonary & Critical Care Medicine

Patient: _____ DOB: _____

Date: _____ SIU#: _____

PLEASE CIRCLE IF YOU CURRENTLY HAVE OR HAVE HAD ANY OF THE FOLLOWING:

Constitutional:

- Fever/chills/night sweats
- Fatigue or Malaise
- Decreased appetite
- Change in weight

HEENT:

- Blurred or double vision
- Cataracts / Glaucoma
- Eye trauma/Glasses / Contact lenses
- Hearing loss or ringing of ears
- Recurrent nose bleeds or sinus congestion
- Hoarseness or sore throat
- Dentures / Mouth ulcers

Cardiovascular:

- Chest pain / Angina
- Palpitations / Irregular heart beat
- Difficulty breathing while lying flat
- Swelling of legs / feet

Gastrointestinal:

- Heartburn
- Adnominal pain
- Nausea / Vomiting
- Diarrhea or constipation
- Hepatitis / Jaundice
- Ulcers / Gallstones

Respiratory:

- Shortness of breath or wheezing
- Coughing blood or mucus
- Exposed to or had Tuberculosis
- Blood Clots in lungs

Musculoskeletal:

- Joint pain / Stiffness / Redness or swelling
- Muscle aches / Soreness / Weakness
- Bone Fractures

Genitourinary:

- Difficulty or painful urination
- Blood in urine or kidney stones
- Frequent urination or incontinence

Neurological:

- Headaches, dizziness or fainting
- Seizures or stroke
- Numbness or paralysis of extremity
- Tremor
- Memory loss

Skin:

- Rashes, Itching or skin problems
- Changes in nails or hair

Endocrine:

- Thyroid problems
- Diabetes
- Excessive thirst, sweating or hunger
- Heat / Cold intolerance

Psychiatric:

- Depression
- Anxiety
- Mood Changes
- Sleep difficulty

Allergic / Immunologic:

- Allergies or Hay fever
- Hives
- Positive skin test
- Allergic reaction requiring medical treatment

Hematologic:

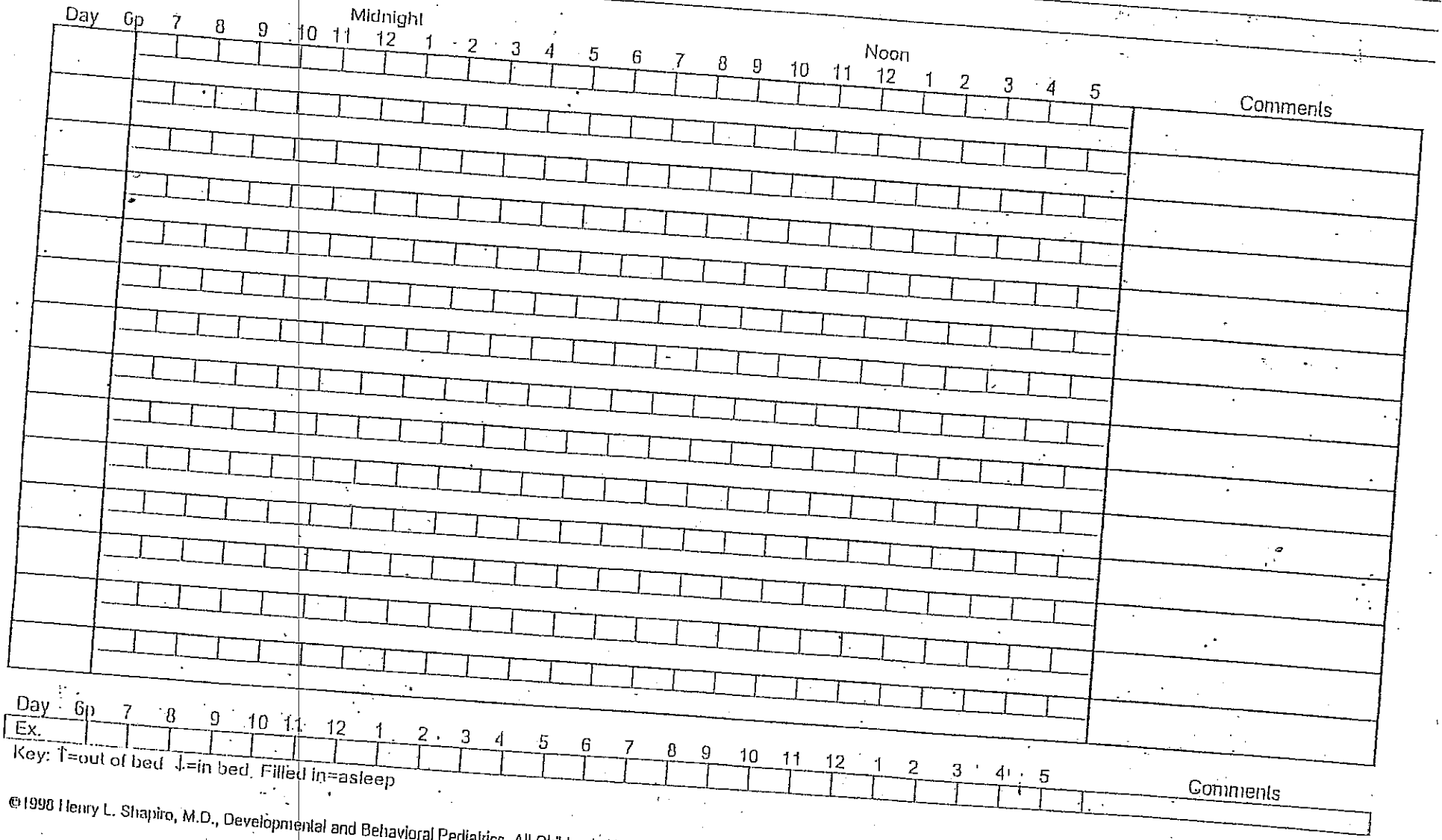
- Easy bruising or bleeding
- Blood transfusion
- Blood clots
- Swelling of lymph nodes or glands

Sleep Log

Name: DOB: / /

Date started: / / Doctor:

List Medications: Comments: Unit #:



Day 6p 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 Comments

Ex.

Key: T=out of bed ⊥=in bed. Filled in=asleep

Sleep Diary

Name: _____
Week: _____ to _____

	Example	Mon	Tue	Wed	Thu	Fri	Sat	Sun
1. Yesterday, I napped from ___ to ___ (Note the times of all naps)	1:50 to 2:30 pm							
2. Yesterday, I took ___ mg of medication and/or ___ oz ___ of alcohol as sleep aid	Ambien 5 mg							
3. Last night, I went to bed and turned the lights off at ___ o'clock	11:15							
4. After turning the lights off, I fell asleep in ___ minutes	40 min							
5. My sleep was interrupted ___ times (Specify number of nighttime awakenings)	3							
6. My sleep was interrupted for ___ minutes (Specify duration of each awakening)	10 5 45							
7. This morning, I woke up at ___ o'clock (Note time of last awakening)	6:15							
8. This morning, I got out of bed at ___ o'clock (Specify the time)	6:40							
9. When I got up this morning I felt ___ (1 = Exhausted 5 = Refreshed)	2							
10. Overall, my sleep last night was ___ (1 = Very Restless 5 = Very Sound)	3							

Resting and Walking (Resting and Exertional) Pulse Oximetry

1. Place the pulse ox on patient's finger while they are seated and turn the power on
2. Wait a minute or two for a stable oxygen reading to register on the screen
3. Proceed to walk patient through the halls watching the screen on the pulse ox throughout
4. In order to qualify for oxygen, the pulse ox must drop to 88% or less
5. Have the patient return to the exam room and sit down
6. Leave the oximeter powered on for a couple minutes while patient is sitting down – this is often when their level will drop to its lowest reading
7. Turn the oximeter off and remove from patient's finger
8. Pulmonary pts – print the report for the MD
9. If sats drop to 88% or below, patient must be walked with oxygen to determine the liter flow they require (this report must also be printed in the Pulmonary Division)

TIPS walking on stairs, bending over, tying shoes, singing will all cause a drop in oxygen saturation levels

5/9/13 ccrn

Surgery Presenting

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth.

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for a TeleSurgery visit and to outline equipment, procedures, and physical exam requirements for working with a Surgeon via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. **Polycom**: refers to the clinical video conferencing device or software. Used interchangeably with Codec.

4. PROCEDURE BODY

All clinical staff responsible for presenting of patients to Surgery Services or any provider who may need a component of surgery physical exam shall be proficient and appropriately trained in providing pre and post op exam data via TeleHealth technologies.

4.1. Surgery Referral Process:

☐ In order to schedule a TeleSurgery consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

☐ Clean and prepare exam table for patient

☐ Turn on lights appropriate to provide lighting for patient's face and affected area(s). Obtain an exam light if necessary

☐ Prepare technology to include: digital still camera, otoscope, hand held camera, digital stethoscope and Polycom **one hour prior** to the TeleHealth visit.

- ☐ Make a test call at this time if system has **not been used recently or desired**

☐ Delete all picture from the memory care in the camera if pictures are stored

☐ Review and have readily available pertinent patient information for the exam (diagnoses, labs, testing, scans, etc.)

4.3. Patient Preparation

☐ When escorting patient from the waiting area to the TeleHealth room, ask patient if they brought any required forms provided by clinician office via mail prior to appointment and obtain height and weight if applicable

☐ Inquire as to whether or not the patient has ever "seen the doctor on a television screen for an appointment" before

☐ If the patient answers "**No**":

- Explain TeleHealth
- How it works – two way audio and video over a secure network
- That the telepresenter will use cameras to show clear pictures of the patient's condition
- Emphasize that this is secure and private and that no one else is able to see and hear the visit (just as if this were an in person visit)
- That the patient has the right to request that a resident or any other person who is in the room on the provider's end to leave
- That the telepresenter will stay in the room with the patient during the visit to run the equipment and help the provider, but that if the patient desires private time with the provider, they can request for the telepresenter to step out of the room
- The patient should always ask the provider to repeat anything the patient did not hear or understand

☐ Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR

☐ Complete a Health History form.

☐ Verify medications (include dose and frequency), update if necessary. Also verify allergies, update if necessary.

☐ Have the patient remove clothing, jewelry, and make-up as necessary to obtain adequate view. Offer the patient a gown if necessary

☐ Frame the patient

☐ Take pictures of the affected area(s) according to the SIU Photography Protocol and upload to the SIU File Transfer system

☐ **Fax ((217)545-7305)** any patient information **not** documented in the EHR to the provider's office staff prior to the start of the appointment

☐ Call the provider's office to inform them that the patient is ready and ask them the staff to check the patient in to the provider's schedule

☐ Wait with the patient for the provider to call on the video system.

4.4. Assisting Provider with Physical Exam (**refer to cardiology and pulmonology)

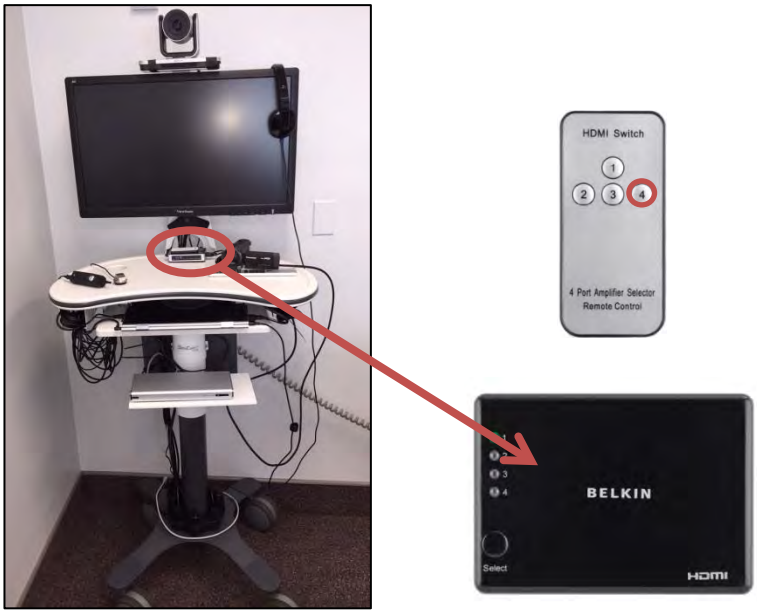
☐ Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

☐ Ensure that the patient is always framed appropriately so the provider can see all aspects of the patient interaction.

☐While the provider is talking to the patient and taking a history, make sure that the hand-held video camera is convenient and available for a live exam

☐When the provider asks for additional assistance with examining and viewing the patient via the hand-held video camera:

- Switch the HD input by using the "HDMI Switch" remote and selecting ④



- Press the camera/play button on the camera

- Narrate the location and position of the image that is being displayed i.e., 'right hand', 'left lower leg', etc.
- Slowly move the video camera over the requested areas and wait for the Surgeon to direct the exam
- When finished with the live exam, set the camera down on the cart and return to telepresenting requirements of input 1 by pressing the 1 or 2 on the HDMI Switch remote.

4.5. Post Physical Exam

☐ Reframe the patient so the patient and provider have good positions for their closing discussion.

☐ Move out of the direct view of the video system.

☐ Once physician has ended the appointment, turn off all equipment used during exam

☐ Provide any pamphlets, handouts, or other materials as requested by the surgeon located in the SIU TeleHealth Patient Materials binder (provided by the SIU TeleHealth Clinical Coordinator)

☐ Assist the patient with dressing or any other needs and assist them in exiting the room

4.6. Post Consult Considerations

☐ Provide patient with pre-op instructions.

☐ Reinforce any patient teaching.

☐ Assist the patient with instructions for using medications and making sure that medication schedules are filled out as needed

☐ Make sure the patient has a follow-up appointment if needed and a business card for the provider

☐ Give the patient the SIU TeleHealth Patient Satisfaction Survey and if possible, have them complete this form prior to leaving and return with the TeleHealth Technology Report Form.

- If not, please ask the patient to complete this survey and return in one of the envelopes provided by SIU TeleHealth.

☐ Enter TeleHealth Facility Fee charge in billing system.

☐ Fill out TeleHealth Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

5. ADDITIONAL RESOURCES

5.1. Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

Urology Presenting

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth.

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for a TeleUrology visit and to outline equipment, procedures, and physical exam requirements for working with a Urologist via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. **Polycom**: refers to the clinical video conferencing device or software. Used interchangeably with Codec.

4. PROCEDURE BODY

All clinical staff responsible for presenting of patients to Urology Services or any provider who may need a component of a urology exam shall be proficient and appropriately trained in providing a urology exam data via TeleHealth technologies.

4.1. Urology Referral Process:

- ☐ In order to schedule a TeleUrology consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

- ☐ A urinary analysis and urine culture will need to be performed prior to the appointment. Instruct the patient to arrive with a full bladder.
- ☐ Clean and prepare exam table for patient
- ☐ Turn on lights appropriate to provide lighting for patient's face and affected area(s). Obtain an exam light if necessary
- ☐ Prepare technology to include: digital still camera, otoscope, hand held camera, digital stethoscope and Polycom **one hour prior** to the TeleHealth visit.
  - ☐ Make a test call at this time if system has **not been used recently or desired**
- ☐ Delete all picture from the memory care in the camera if pictures are stored
- ☐ Review and have readily available pertinent patient information for the exam
  - ☐ If an ultrasound is required for urology exam, this should be completed and reviewed by clinician prior to the TeleHealth appointment

4.3. Patient Preparation

☐When escorting patient from the waiting area to the TeleHealth room, ask patient if they brought any required forms provided by clinician office via mail prior to appointment and obtain height and weight if applicable

☐Inquire as to whether or not the patient has ever "seen the doctor on a television screen for an appointment" before

☐If the patient answers "**No**":

- Explain TeleHealth
- How it works – two way audio and video over a secure network
- That the telepresenter will use cameras to show clear pictures of the patient's condition
- Emphasize that this is secure and private and that no one else is able to see and hear the visit (just as if this were an in person visit)
- That the patient has the right to request that a resident or any other person who is in the room on the provider's end to leave
- That the telepresenter will stay in the room with the patient during the visit to run the equipment and help the provider, but that if the patient desires private time with the provider, they can request for the telepresenter to step out of the room
- The patient should always ask the provider to repeat anything the patient did not hear or understand

☐Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR

☐Complete the Health History form with focus on GU system.

☐Verify medications (include dose and frequency), update if necessary. Also verify allergies, update if necessary.

☐Have the patient remove clothing, jewelry, and make-up as necessary to obtain adequate view. Offer the patient a gown if necessary

☐Frame the patient

☐Take pictures of the affected area(s) according to the SIU Photography Protocol and upload to the SIU File Transfer system

☐**Fax** any patient information **not** documented in the EHR to the provider's office staff prior to the start of the appointment

☐Call the provider's office to inform them that the patient is ready and ask them the staff to check the patient in to the provider's schedule

☐Wait with the patient for the provider to call on the video system.

4.4. Assisting Provider with Physical Exam

☐Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

☐Ensure that the patient is always framed appropriately so the provider can see all aspects of the patient interaction.

☐While the provider is talking to the patient and taking a history, make sure that the hand-held video camera is convenient and available for a live exam

☐When the provider asks for additional assistance with examining and viewing the patient via the hand-held video camera:

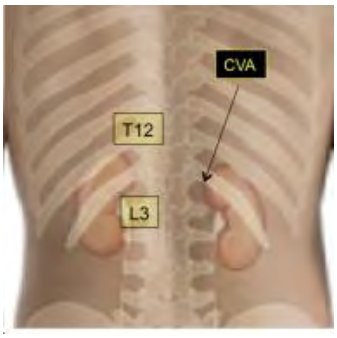
- Switch the input by using the “HDMI Switch” remote and selecting (4)

- Press the camera/play button on the camera

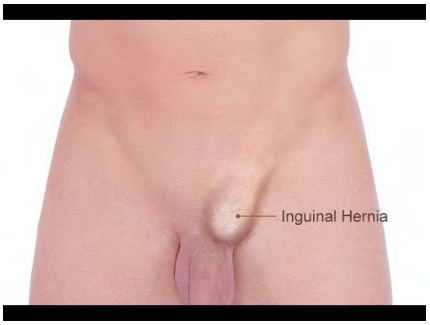
- Narrate the location and position of the image that is being displayed i.e., ‘right hand’, ‘left lower leg’, etc.
- Slowly move the video camera over the requested areas and wait for the Urologist to direct the exam
- When finished with the live exam, set the camera down on the cart

and return to telepresenting requirements of input 1 by pressing the 1 or 2 on the HDMI switch remote.

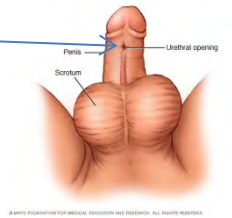
4.4.1. Physical Exam: a urology physical exam usually focuses on the costovertebral angle (pictured), abdomen, rectum, groin, and genitals. In women with urinary symptoms, pelvic examination is usually done. Be prepared for catheterization of patient.



- **Abdomen**
  - Asses for dullness to percussion in the lower abdomen(this could suggest bladder distention)
  - Palpate bladder to confirm distention and urinary retention.
- **Groin and Genitals**
  - **Males**
    - Exam should be done with patients standing
    - Assess for inguinal hernia or adenopathy
    - Assess for gross asymmetry, swelling, erythema, or discoloration of the testes (may indicate infection, torsion, tumor, or other mass)



    - The penis is examined with and without retracting the foreskin. Assess for:
      - Hypospadias
      - Priapism, ulcers, and discharge



    - If testicular swelling is present, the area should be transilluminated to help determine whether the swelling is cystic or solid

  - **Females**
    - Often times female urology exams will need a pelvic exam performed.
  - Be prepared to obtain urine samples (sterile container, etc.) and provide patient with instructions on obtaining urine properly

Handbook & Policy Library

TELEHEALTH URINARY ANALYSIS, CULTURE AND POST VOID CATH RESIDUAL PROTOCOL

Effective: 06/01/2015

Urology Protocol

*****Collect urine sample and complete or send sample to lab for urinary analysis and urine culture prior to making the check-in call to physician office (this does not include infants)*****

Urine specimen collection

- ☐ Have available:
  - ☐ Castile soap towelettes
  - ☐ Sterile container and lid for urine collection
  - ☐ Urine collection bag to adhere to skin surrounding urethral area **(for infants and small children)**
    - ☐ **do not** collect urine sample from diaper
  - ☐ Urinary catheter and kit in various sizes
  - ☐ Urine dipsticks
  - ☐ Urinalysis tubes

Patient Instruction

- ☐ After giving the patient a label with his or her name on it and a sterile container with a lid:
  - ☐ Instruct patient to clean urethral area with a castile soap towelette
    - ☐ females should cleanse front to back
  - ☐ Void first portion of urine stream directly into the toilet
  - ☐ After first portion of urine has been directly voided into toilet, stop momentarily if possible, begin to urinate directly into collection container
  - ☐ Secure lid when finished

Collection and Transportation

- ☐ All containers used for transportation and collection should be clean and free of any interfering substances
- ☐ Properly label according to your institution guidelines (i.e. time, date, label on container – not lid, collection method)

Special Considerations

- ☐ If patient is a small child or infant that is not potty trained, use a urine collection bag
  - ☐ Remove diaper
  - ☐ Cleanse genital area
  - ☐ Arrange bag around urinary opening
  - ☐ Place diaper back on the child
- ☐ Catheterization may be needed if patient cannot urinate independently

Post Void Residual

- ☐ Post void residual is the amount of urine left in the bladder after using urinating therefore is measured **after** patient voids
  - ☐ Straight cathpost void residual
    - ☐ After patient has attempted to empty bladder completely:
      - ☐ Have supplies for catheterization ready
      - ☐ Have patient lie flat on the exam table
      - ☐ Perform catheterization until all remaining urine has been collected
      - ☐ Measure collected urine volume

Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

Wound Healing

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth.

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for a TeleWound visit and to outline equipment, procedures, and physical exam requirements for working with a Clinician via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. Polycom: refers to the clinical video conferencing device or software. Used interchangeably with Codec.

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3.3. Wound Debridement: The removal of dead, damaged, or infected tissue to improve the healing potential of remaining healthy tissue.

3.4. Biofilm: is essentially an invisible "layer" formed by an extracellular matrix that binds to the wound base, whether dermis, fascia, muscle, tendon, or bone.

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3.18. Serous exudate: Is clear or pale yellow.

3.19. Serosanguinous exudate: is blood tinged serous fluid.

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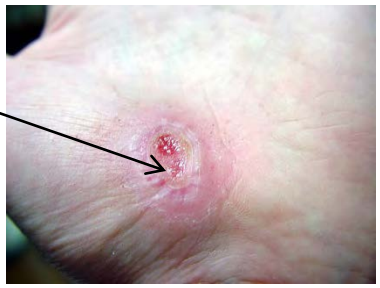

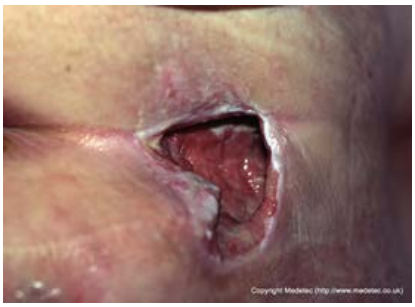

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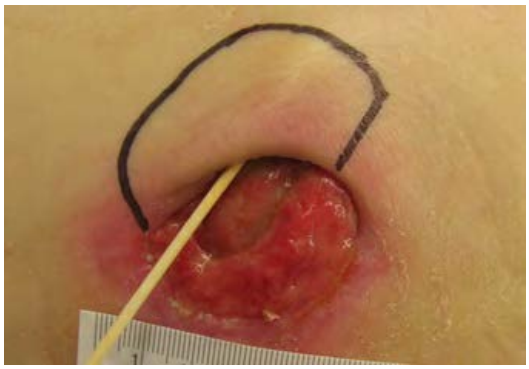
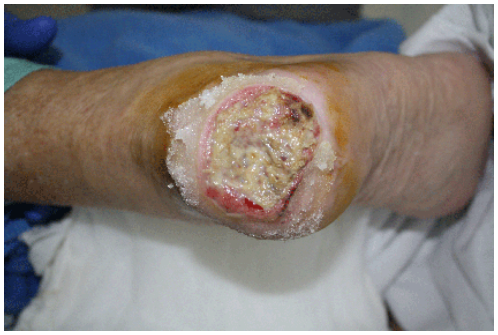
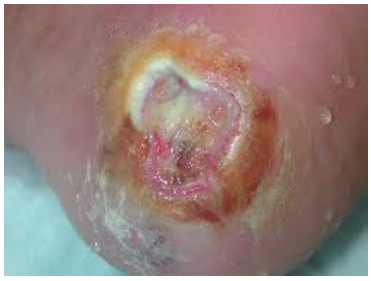


3.31. Fistulas: Connects viscous organs together (for example, rectovaginal fistula), or connect to the skin (for example, enterocutaneous fistula).

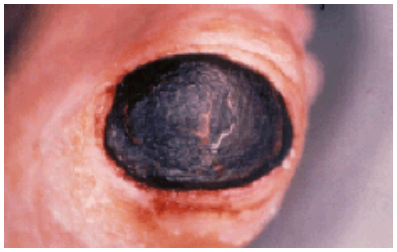
3.32. Maceration: Is a softening of the skin surrounding a wound due to excess drainage or pooling of fluid on intact skin and appears as white, waterlogged area



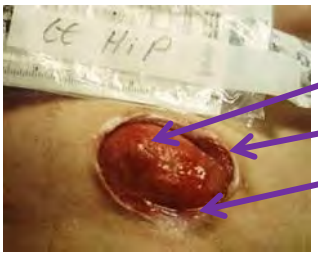
3.33. Slough: necrotic tissue that is moist, stringy, and yellow



3.34. Eschar: In a wound that has become dehydrated, necrotic tissue turns thick, leathery, and black



3.35. Geography of Chronic Wounds:



A+B+C= The Total Wound

- A= The wound bed
- B= The wound edge
- C= Is the surrounding skin

3.36. Partial Thickness wounds: Refers to as damage to the epidermis and part of the dermis. Common examples are abrasions, skin tears, blisters, and skin-graft donor sites.

3.37. Full Thickness wounds: Extend through the epidermis, dermis, and may extend into the subcutaneous tissue, fascia, and muscle.

3.38. Macro Pictures: Taking picture of the whole body part in relation to the wound.

3.39. Micro Pictures: Taking pictures of just the wound.

4. PROCEDURE BODY

All clinical staff responsible for presenting of patients for wound services or any provider who may need a component of a wound exam shall be proficient and appropriately trained in providing wound exam data via TeleHealth technologies.

4.1. Referral Process:

☐ In order to schedule a TeleWound consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

☐ Clean and prepare exam table for patient

☐ Turn on lights appropriate to provide lighting for patient's face and affected area(s). Obtain an exam light if necessary

☐ Prepare technology to include: digital still camera, otoscope, hand held camera, digital stethoscope and Polycom **one hour prior** to the TeleHealth visit.

☐ Make a test call at this time if system has **not been used recently or desired**

☐ Prepare wound supplies (i.e. normal saline, roll gauze, 4x4's, debridement supplies).

☐ Delete all picture from the memory care in the camera if pictures are stored

☐ Review and have readily available pertinent patient information for the exam (diagnosis, labs, testing, scans, etc.)

4.3. Patient Preparation

☐ When escorting patient from the waiting area to the TeleHealth room, ask patient if they brought any required forms provided by clinician office via mail prior to appointment and obtain height and weight if applicable

☐ Inquire as to whether or not the patient has ever "seen the doctor on a television screen for an appointment" before

☐ If the patient answers **"No"**:

- Explain TeleHealth
- How it works – two way audio and video over a secure network
- That the telepresenter will use cameras to show clear pictures of the

patient's condition
- Emphasize that this is secure and private and that no one else is able to see and hear the visit (just as if this were an in person visit)
- That the patient has the right to request that a resident or any other person who is in the room on the provider's end to leave
- That the telepresenter will stay in the room with the patient during the visit to run the equipment and help the provider, but that if the patient desires private time with the provider, they can request for the telepresenter to step out of the room
- The patient should always ask the provider to repeat anything the patient did not hear or understand

☐ Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR

☐ Verify medications (include dose and frequency), update if necessary. Also verify allergies, update if necessary.

☐ Have the patient remove clothing, jewelry, and make-up as necessary to obtain adequate view. Offer the patient a gown if necessary

☐ Don gloves.

☐ Position patient comfortably on the exam table. Be conscious not to overexpose the patient

☐ Frame the patient

☐ Remove wound dressing and packing. Remove the dressing without ripping, tugging, or tearing off a dressing stuck to the wound. Place in disposable infectious waste bag.

☐ Take pictures of the affected area(s) according to the SIU Photography Protocol and upload to the SIU File Transfer system

☐ **Fax** any patient information **not** documented in the EHR to the provider's office staff prior to the start of the appointment

☐ Call the provider's office to inform them that the patient is ready and ask them the staff to check the patient in to the provider's schedule

☐ Wait with the patient for the provider to call on the video system.

4.4. Assisting Provider with Physical Exam

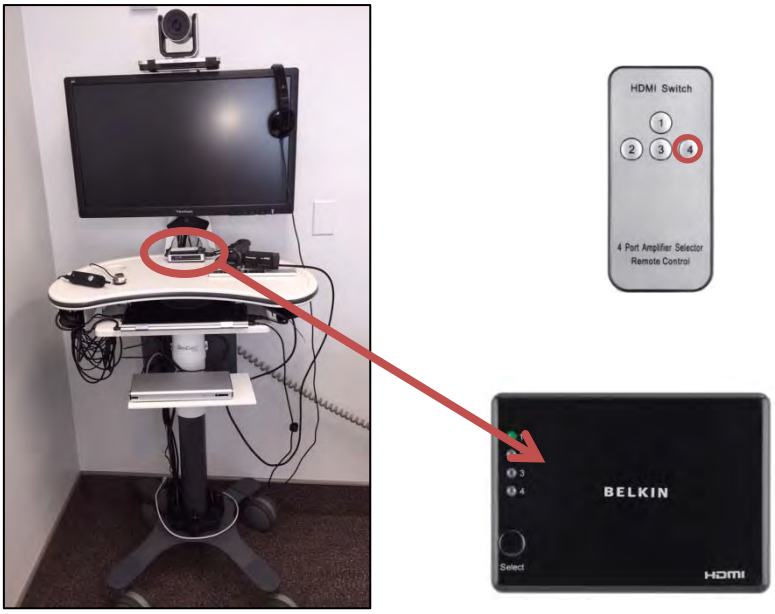
☐ Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

☐ Ensure that the patient is always framed appropriately so the provider can see all aspects of the patient interaction.

☐While the provider is talking to the patient and taking a history, make sure that the hand-held video camera is convenient and available for a live exam

☐When the provider asks for additional assistance with examining and viewing the patient via the hand-held video camera:

- Switch the HD by using the "HDMI Switch" remote and selecting ④



- Press the camera/play button on the camera

- Narrate the location and position of the image that is being displayed i.e., 'right hand', 'left lower leg', etc.
- Slowly move the video camera over the requested areas and wait for the Clinician to direct the exam
- When finished with the live exam, set the camera down on the cart and return to telepresenting requirements of input 1 by pressing the 1 or 2 on the HDMI Switch remote.

4.4.1. Clinical Assessment

☐**PLEASE NOTE:** Pulses must be checked laying down and not in a wheel chair. If not palpable, use Doppler to check pulses. If a Doppler is used, the provider will want to hear the quality of the pulse during the consult.

☐If wound is on the legs, measure the calf four inches below the bottom of the patella. Ankle measurements should also be documented. Measure both legs and ankles for comparison.

☐**PLEASE NOTE: All measurements should be in centimeters**

4.4.2. Cleansing the wound

☐Clean around the wound with a mild soap and water. Pat dry.

☐Clean wound using normal saline and to loosen a dressing that has adhered to the wound.

☐Debride wound of any crusting or callus. Please refer to **Wound Debridement Procedure.**

☐Cleanse the wound bed and the surrounding skin after debridement with normal saline

4.4.3. Wound Measurement: Look carefully at wound edges to determine whether they are distinct, to ensure accurate measuring of wound edges. Toke the following steps:

Step 1: To establish on anatomic landmark; identify the location of the patient's head and always mark the12:00 at the patient's head regardless of the position of the patient. Continue to mark for 3:00, 6:00, and 9:00 accordingly.

Step 2: Measure wound edge to wound edge starting with the 12:00 -6:00 edge, then measuring 3:00-9:00 edge at the longest point.

Step 3: Measure depth of the wound using a moistened cotton tip applicator, place into the depth of the wound to be measured, grasp the applicator at the level of the skin. While still grasping the applicator, remove from the wound and place next to disposable wound measurement ruler. Measure undermining if present.

4.4.4. Obtain cultures as directed by the provider. Please see **Wound Culture Procedure.**

4.5. Post Physical Exam

☐Reframe the patient so the patient and provider have good positions for their closing discussion.

☐Move out of the direct view of the video system.

☐Once physician has ended the appointment, turn off all equipment used during exam

☐ Provide any pamphlets, handouts, or other materials as requested by the clinician located in the SIU TeleHealth Patient Materials binder (provided by the SIU TeleHealth Clinical Coordinator)

☐ Assist the patient with dressing or any other needs and assist them in exiting the room

4.6. Post Consult Considerations

☐ Reinforce any patient teaching.

☐ Assist the patient with instructions for using medications and making sure that medication schedules are filled out as needed

☐ Make sure the patient has a follow-up appointment if needed and a business card for the provider

☐ Give the patient the SIU TeleHealth Patient Satisfaction Survey and if possible, have them complete this form prior to leaving and return with the TeleHealth Technology Report Form.

- If not, please ask the patient to complete this survey and return in one of the envelopes provided by SIU TeleHealth.

☐ Enter TeleHealth Facility Fee charge in billing system.

☐ Fill out TeleHealth Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

5. ADDITIONAL RESOURCES

5.1. References

Bickley, L. S., and Szilagvi, P.G., *Bates' Pocket* Guide *to* Physical Exominotion and *History* Taking. Ninth Edition. Philadelphia, PA: Lippincott Williams & Wilkins; 2007.

Specimen collection and testing. (2009). In Lippincott's nursing procedures (5th ed., pp.216-219). Retrieved from http://ovidsp.ovid.com

5.2. Additional Questions:

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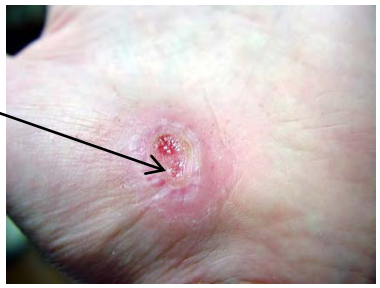

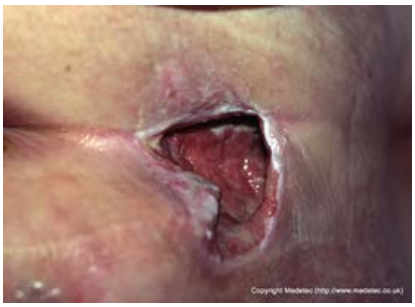

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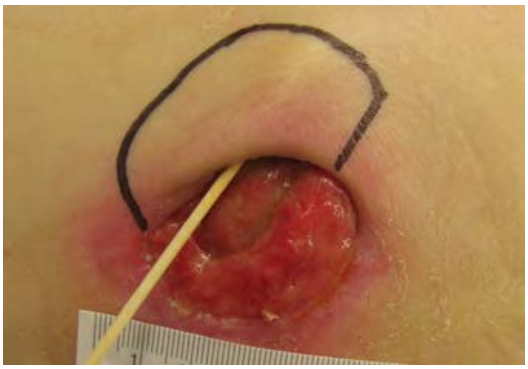
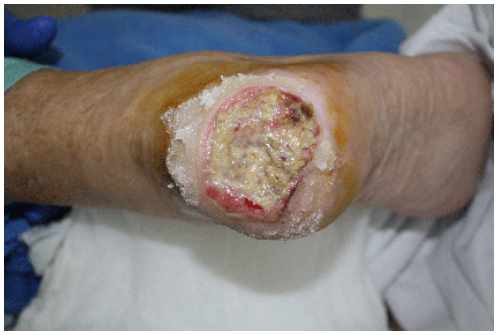
3.29. Fluctuance: Wavy impulse felt in palpitation and produced by vibration of body fluid.

3.30. Sinus tract (tunneling): Is a channel that extends from any part of the wound and may pass away from the wound through subcutaneous tissue and muscle.

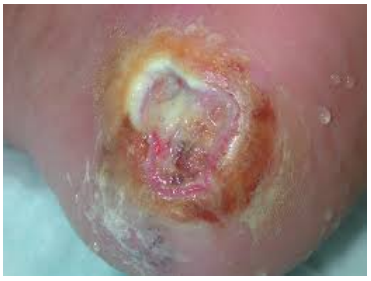


3.31. Fistulas: Connects viscous organs together (for example, rectovaginal fistula), or connect to the skin (for example, enterocutaneous fistula).

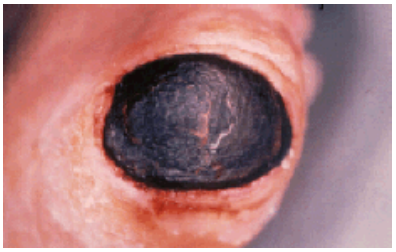
3.32. Maceration: Is a softening of the skin surrounding a wound due to excess drainage or pooling of fluid on intact skin and appears as white, waterlogged area



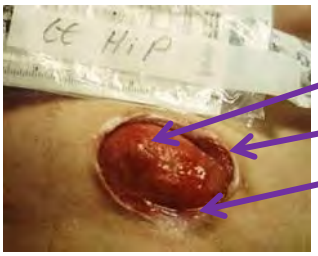
3.33. Slough: necrotic tissue that is moist, stringy, and yellow



3.34. Eschar: In a wound that has become dehydrated, necrotic tissue turns thick, leathery, and black



3.35. Geography of Chronic Wounds:



A+B+C= The Total Wound

- A= The wound bed
- B= The wound edge
- C= Is the surrounding skin

3.36. Partial Thickness wounds: Refers to as damage to the epidermis and part of the dermis. Common examples are abrasions, skin tears, blisters, and skin-graft donor sites.

3.37. Full Thickness wounds: Extend through the epidermis, dermis, and may extend into the subcutaneous tissue, fascia, and muscle.

3.38. Macro Pictures: Taking picture of the whole body part in relation to the wound.

3.39. Micro Pictures: Taking pictures of just the wound.

3.40. Erythema: redness of the skin as a result of a widening of the small blood vessels near its surface

4. PROCEDURE BODY

All clinical staff responsible for presenting of patients for wound services or any provider who may need a component of a wound exam shall be proficient and appropriately trained in providing wound exam data via TeleHealth technologies.

4.1. Referral Process:

☐ In order to schedule a TeleWound consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

☐ Clean and prepare exam table for patient

☐ Turn on lights appropriate to provide lighting for patient's face and affected area(s). Obtain an exam light if necessary

☐ Prepare technology to include: digital still camera, otoscope, hand held camera, digital stethoscope and Polycom **one hour prior** to the TeleHealth visit.

☐ Make a test call at this time if system has **not been used recently or desired**

☐ Prepare wound supplies (i.e. normal saline, roll gauze, 4x4's, debridement supplies).

☐ Delete all picture from the memory care in the camera if pictures are stored

☐ Review and have readily available pertinent patient information for the exam (diagnosis, labs, testing, scans, etc.)

4.3. Patient Preparation

☐ When escorting patient from the waiting area to the TeleHealth room, ask patient if they brought any required forms provided by clinician office via mail prior to appointment and obtain height and weight if applicable

☐ Inquire as to whether or not the patient has ever "seen the doctor on a television screen for an appointment" before

☐ If the patient answers **"No"**:

- Explain TeleHealth
- How it works – two way audio and video over a secure network
- That the telepresenter will use cameras to show clear pictures of the patient's condition
- Emphasize that this is secure and private and that no one else is able to see and hear the visit (just as if this were an in person visit)
- That the patient has the right to request that a resident or any other person who is in the room on the provider's end to leave
- That the telepresenter will stay in the room with the patient during the visit to run the equipment and help the provider, but that if the patient desires private time with the provider, they can request for the telepresenter to step out of the room
- The patient should always ask the provider to repeat anything the patient did not hear or understand

☐ Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR

☐ Verify medications (include dose and frequency), update if necessary. Also verify allergies, update if necessary.

☐ Have the patient remove clothing, jewelry, and make-up as necessary to obtain adequate view. Offer the patient a gown if necessary

☐ Don gloves.

☐ Position patient comfortably on the exam table. Be conscious not to overexpose the patient

☐ Frame the patient

☐ Remove wound dressing and packing. Remove the dressing without ripping, tugging, or tearing off a dressing stuck to the wound. Place in disposable infectious waste bag.

☐ Take pictures of the affected area(s) according to the SIU Photography Protocol and upload to the SIU File Transfer system

☐ **Fax** any patient information **not** documented in the EHR to the provider's office staff prior to the start of the appointment

☐ Call the provider's office to inform them that the patient is ready and ask them the staff to check the patient in to the provider's schedule

☐ Wait with the patient for the provider to call on the video system.

4.4. Assisting Provider with Physical Exam

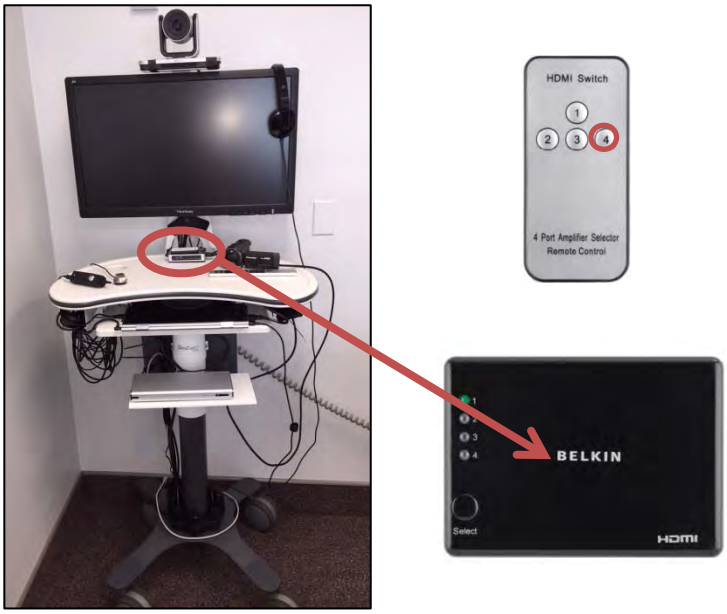
☐ Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

☐Ensure that the patient is always framed appropriately so the provider can see all aspects of the patient interaction.

☐While the provider is talking to the patient and taking a history, make sure that the hand-held video camera is convenient and available for a live exam

☐When the provider asks for additional assistance with examining and viewing the patient via the hand-held video camera:

- Switch the HD input by using the "HDMI Switch" remote and selecting ④



- Press the camera/play button on the camera

- Narrate the location and position of the image that is being displayed i.e., 'right hand', 'left lower leg', etc.
- Slowly move the video camera over the requested areas and wait for the Clinician to direct the exam
- When finished with the live exam, set the camera down on the cart and return to telepresenting requirements of input 1 by pressing the 1 or 2 on the HDMI switch remote.

4.4.1. Clinical Assessment

☐**PLEASE NOTE:** Pulses must be checked laying down and not in a wheel chair. If not palpable, use Doppler to check pulses. If a Doppler is used, the provider will want to hear the quality of the pulse during the consult.

- Note the quality of pulses
- Bruit: only assess if patient had bypass graft; otherwise text N/A for not applicable

☐If wound is on the legs, measure the calf four inches below the bottom of the patella. Ankle measurements should also be documented. Measure both legs and ankles for comparison.

- Right Calf: Fill with measurement in cm
- Right Ankle: Fill with measurement in cm
- Left Calf: Fill with measurement in cm
- Left Ankle: Fill with measurement in cm

☐Claudication: Yes/No.

☐Edema (1+-4+)

☐Paresthesias

☐Burning

☐Skin Temperature: Normal/Cool/Hot.

☐Capillary Refill: Less than 3 seconds/greater than 4 seconds.

☐Skin Color: Normal/Rubor/Dusky/Pale.

☐Advanced Trophic Changes

- Hair: Normal/ Decreased/ Absent.
- Nails: Normal/Thickened/Discolored/Ingrown.

☐Skin Texture: Thin/ Shiny/ Dry/ Normal/ Pigmented/ Stasis dermatitis/ etc.

☐Duration of wound: Fill in with date; may be found in previous note.

☐Duration of Treatment: when treatment began; put a date; may be found in previous note

☐Grade (Wagner classification-foot ulcers)

☐Stage (pressure ulcer stage- NPUAP)

☐Pain: Select level of pain on a scale of 1-10

☐Size: length x width x depth (all in cm).

☐Wound Bed Before Debridement:

- Red (percent)
- Black (percent)
- Yellow (percent)

☐Granulation (percent and color)

☐Epithelialization (percent)

☐Exposed (percent)

☐Surrounding Skin
- Intact
- Erythema
- Maceration (measurement in cm)

☐Fluctuance (measurement in cm)

☐Rash (measurement in cm)

☐Edema (measurement in cm)

☐Management (cleansed with)

☐Wound Treatment (topical)

☐Periwound skin description

☐Primary Dressing

☐Secondary Dressing

☐Tolerated Treatment

****PLEASE NOTE: All measurements should be in centimeters****

4.4.1. Obtain cultures as directed by the provider. Please see **Wound Culture Procedure.**

5. ADDITIONAL RESOURCES

5.1. Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

Wound Culture Collection

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth.

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for wound culture collection and to outline equipment and procedures requirements for wound culture collection via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. Collection normally involves sampling of inflamed tissues and exudates from the throat, nasopharynx, wounds, eye, ear, or rectum with sterile swabs of cotton or other absorbent material.

3.2. Wound tissue is considered the best specimen for culture from which to identify wound infection.

3.3. **Polycom**: refers to the clinical video conferencing device or software. Used interchangeably with Codec.

4. PROCEDURE BODY

All clinical staff responsible for wound culture collection or any provider who may need a component of a wound culture shall be proficient and appropriately trained in collecting a wound culture via TeleHealth technologies.

Correct collection and handling of specimens helps the laboratory staff identify pathogens accurately with a minimum of contamination from normal bacterial flora.

4.1. Wound Debridement Process:

a. In order to schedule a wound consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

a. Clean and prepare exam table for patient

b. Turn on lights appropriate to provide lighting for the procedure. Obtain an exam light if necessary

c. Prepare supplies and technology as necessary. Technology may include: digital still camera, hand held video camera and Polycom **one hour prior** to wound debridement.

- **If using Polycom, make a test call at this time if system has not been used recently or if desired.**

4.3. The TeleHealth nurse will **collect the appropriate supplies** for wound cultures:

- ☐ Gloves.
- ☐ Forceps, scalpel, and surgical scissors.
- ☐ Alcohol or providone-iodine pads.
- ☐ Sterile swabs.
- ☐ Sterile 10-ml syringe.
- ☐ 21G. needle.
- ☐ Sterile culture tube with transport medium (or commercial collection kit for aerobic culture).
- ☐ Labels.
- ☐ Fresh dressing for the wound.
- ☐ Laboratory request form.
- ☐ Laboratory biohazard bag for transport.

4.4. The TeleHealth nurse will **identify the patient and explain the procedure** for collecting wound cultures.

- ☐ It is the responsibility of the Wound Healing Staff to place the order for culture collection.
- ☐ The nurse will click on Clinical Order Manager and reprint order to obtain lab slip.
- ☐ The TeleHealth nurse will obtain the culture kit. Be sure to double check the expiration on the kit.
- ☐ The TeleHealth nurse will print labels with patient name, MHN, and address.
- ☐ The nurse will label each culture with the following: a patient label, date, site, specimen type, the name of the person collecting the sample, requesting provider, and that it's a wound healing patient. The label also needs to indicate fungus with sensitivity, aerobes with sensitivity, and anaerobes with sensitivity. This should also be indicated on the lab slip.
- ☐ Once the samples are labeled, they need to be sent to lab with the lab slip.

4.5. Collecting a wound specimen:

- ☐ **Please Note:** Tissue sampling is the gold standard for wound cultures.

☐ **Step 1:** Wash hands and Don gloves. With a forceps, remove the dressing to expose the wound. Dispose of the soiled dressings properly.

☐ **Step 2:** Clean the area around the wound and the wound itself with normal saline. Allow the area to dry.

☐ **Step 3:** Aseptically remove a piece of viable wound tissue with a scalpel or scissors.

☐ **Step 4:** Place tissue into specimen tube. There must be a different sample for each test. For example: aerobic with sensitivity, anaerobic with sensitivity, and fungus with sensitivity; the clinician will need to collect three samples. There must be separate tubes for separate sites.

☐ **If unable to collect tissue sample, please proceed to step 5.**

☐ **Step 5:** For a swab culture, use a sterile cotton-tipped swab to collect as much exudate as possible, or insert the swab deeply into the wound, and gently rotate it. Remove the swab from the wound, and immediately place it in the culture tube.

☐ **Step 6:** Label the tube with the name, date, time, and site of specimen collection, specimen type (i.e. exudate, blood, urine), wound healing, name of person collecting the specimen, and requesting provider.

☐ **Step 7:** Send the tube to the laboratory immediately with a completed laboratory request form.

☐ **Step 8:** Apply a new dressing to the wound.

4.6. Special Considerations:

☐ Note any recent antibiotic therapy on the laboratory request form.

☐ Although normally the area around the wound is cleaned to prevent contamination by normal skin flora, don't clean a perineal wound with alcohol as this could irritate sensitive tissues. Also be sure that antiseptic doesn't enter the wound.

4.7. Documentation:

- ☐ Record the date.
- ☐ Time.
- ☐ Specimen type (i.e. exudate, tissue, urine).
- ☐ Site of specimen collection.
- ☐ Any recent antibiotic therapy.
- ☐ Note whether the specimen has an unusual appearance or odor.
- ☐ Order should state fungus with sensitivity, aerobes with sensitivity and anaerobes with sensitivity.

4.8. Post Collection Considerations

- ☐ Reinforce any patient teaching.
- ☐ Assist the patient with instructions for any medications and wound care
- ☐ Make sure the patient has a follow-up appointment if needed
- ☐ Give the patient the SIU TeleHealth Patient Satisfaction Survey and if possible, have them complete this form prior to leaving and return with the TeleHealth Technology Report Form.
  - If not, please ask the patient to complete this survey and return in one of the envelopes provided by SIU TeleHealth.
- ☐ Enter TeleHealth Facility Fee charge in billing system.
- ☐ Fill out TeleHealth Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

5. ADDITIONAL RESOURCES

5.1. References:

Specimen collection and testing. (2009). In Lippincott's nursing procedures (5th ed., pp.216-219). Retrieved from http://ovidsp.ovid.com

5.2. Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

Wound Debridement

1. SCOPE

1.1. System Wide: This procedure applies to all regional telepresenters working with SIU HealthCare providers and SIU HealthCare's partner TeleHealth organizations providing care via TeleHealth.

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to prepare the environment and the patient for wound debridement and to outline equipment and procedures requirements for wound debridement via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. Sharp/ Surgical Debridement: includes the use of a scalpel, forceps, scissors, hydrosurgery devices, or lasers to remove dead tissue. Sharp debridement is considered the "gold standard" by clinicians. Debridement is required to convert the chronic wound bed into an acute wound so that the wound healing cascade can get a fresh start. It can also cause pain so a topical anesthetic is such as lidocaine gels or creams may be required.

3.2. Wound Debridement: the removal of dead, damaged, or infected tissue to improve the healing potential of remaining healthy tissue.

3.3. Biofilm: is essentially an invisible "layer" formed by an extracellular matrix that binds to the wound base, whether dermis, fascia, muscle, tendon, or bone. It may have the appearance of granular and viable tissue

3.4. Acute Wounds: normally precede through an orderly process that results in sustained restoration of anatomic and functional integrity.

3.5. Chronic Wounds: have failed to proceed through an orderly and timely process to produce anatomic and functional integrity, or proceed through the repair process without establishing a sustained anatomic and functional result.

3.6. Actively Infected Wounds: contain surrounding erythema, swelling, induration, tenderness, purulence and malodor.

3.7. Chronically Inflamed Wounds: may have a rim of surrounding erythema, even without other local clinical signs of infection.

3.8. Tissue forceps: helpful in grasping the tissue.

3.9. Scalpels: used to slice off thin layers of tissue.

3.10. Curettes: useful in removing the biofilm that accumulates on top of both fresh and chronic granulation tissue.

3.11. Rongeurs: useful for removing hard-to-reach soft tissue and for debriding or biopsying bone.

3.12. Polycom: refers to the clinical video conferencing device or software. Used interchangeably with Codec.

4. PROCEDURE BODY

All clinical staff responsible for wound debridement or any provider who may need a component of wound debridement shall be proficient and appropriately trained in providing wound debridement services via TeleHealth technologies.

The primary purpose of debridement is to reduce or remove dead and necrotic tissue that serves as a proinflammatory stimulus and a culture medium for bacterial growth. The removal of this tissue is necessary to reduce the biological burden of the wound in order to control and prevent wound infection, especially in deteriorating wounds. Debridement allows the practitioner to visualize the walls and base of a wound more accurately to determine the presence of viable tissue.

4.1. Wound Debridement Process:

a. In order to schedule a wound consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

a. Clean and prepare exam table for patient

b. Turn on lights appropriate to provide lighting for the procedure. Obtain an exam light if necessary

c. Prepare technology as necessary which may include: digital still camera, hand held video camera and Polycom **one hour prior** to wound debridement.

- **If using Polycom, make a test call at this time if system has not been used recently or if desired.**

4.3. The TeleHealth nurse will obtain the **necessary supplies** used in debridement, which will be identified prior to the patient appointment.

a. Basic tools needed- sterile

b. Scalpels #10 and #15

c. Tissue forceps

d. Iris scissors

e. Curettes

f. Rongeurs

4.4. The TeleHealth nurse will **educate the patient** as to the type of debridement that

will take place.

a. The nurse will assess patient understanding of the procedure.

b. The nurse will answer any questions the patient may have.

c. The nurse will pre-medicate patient with topical anesthetic prior to procedure if necessary.

d. The nurse will obtain verbal consent.

4.5. Clinical assessment needs to be done **prior to debridement**. Please refer to TeleHealth Wound Healing Procedure.

4.6. Sharp/Surgical Debridement:

a. **Step 1:** Don Gloves.

b. **Step 2:** Then nurse will cleanse the wound with normal saline prior to debridement.

c. **Step 3:** Remove as much debris from wound surface with saline-moistened gauze prior to sharp debridement.

d. **Step 4:** The nurse must be able to differentiate where and what to cut. Necrotic tissue is removed using a scalpel, scissors, forceps, or curette.

e. **Step 5:** Wounds will be debrided until all nonviable yellow, grey, and black substances have been removed; only red (muscle), white (tendon, bone, fascia), and/or viable yellow (subcutaneous fat) tissues remain.

f. **Step 6:** Wound surface will be debrided with curette or scalpel to remove biofilm.

g. **Step 7:** Wound edges and/or rim should be debrided down to healthy skin with the use of a scalpel or iris scissors.

h. **Step 8:** The nurse will cleanse the wound with normal saline after debridement.

Please Note: The nurse must use caution in patients who have been on a prolonged course of anticoagulant therapy, steroids, or possible allergy to topical anesthetic.**

4.7. Post Debridement Considerations

a. Reinforce any patient teaching.

b. Assist the patient with instructions for any medications and wound care

c. Make sure the patient has a follow-up appointment if needed

d. Give the patient the SIU TeleHealth Patient Satisfaction Survey and if possible, have them complete this form prior to leaving and return with the TeleHealth Technology Report Form.
   - If not, please ask the patient to complete this survey and return in one of the envelopes provided by SIU TeleHealth.

e. Enter TeleHealth Facility Fee charge in billing system.

f. Fill out TeleHealth Technology Report Form (located on the SIU TeleHealth website) and return in provided business reply envelopes.

5. ADDITIONAL RESOURCES

5.1. References:

Bickley, L. S., and Szilagvi, P.G., *Bates' Pocket Guide to Physical Examination and History Taking*. Ninth Edition. Philadelphia, PA: Lippincott Williams & Wilkins; 2007.

5.2. Supporting documents available: http://www.sharpdebridement.com/files/State_by_State_Summary.pdf

5.3. Additional Questions:

Dr. Nina M. Antoniotti, RN, MBA, PhD
(217)545-3830
Executive Director of TeleHealth and Clinical Outreach, SIU HealthCare

Shantel Brown, RN, BS
(217)545-3153
TeleHealth Clinical Coordinator, SIU HealthCare

State by State Summary of Nurses Allowed to Perform Conservative Sharp Debridement

THE FOLLOWING ARE ONLY GENERAL SUMMARIES OF THE PRACTICE ACTS EACH STATE HAS REGARDING CONSERVATIVE SHARP DEBRIDEMENT AND IS MEANT TO BE USED AS A GUIDELINE. THESE MAY CHANGE AT ANY TIME AND THE CLINICIAN IS RESPONSIBLE FOR STAYING CURRENT FOR THE GUIDELINES OF ITS STATE PRACTICE ACT. INFINITUS, LLC CANNOT BE HELD RESPONSIBLE FOR A CLINICIAN'S CHOICE TO PERFORM PROCEDURES OUTSIDE THEIR SCOPE OF PRACTICE.

Follow this link for a list of contact information for each state board:

www.allnursingschools.com/faqs/boards.php

ILLINOIS

RN's can perform SD as long as they have taken a course and had supervised clinical practice. The facility policy and procedures must reflect the RN's capacity to perform this skill.

LPN's may not perform this procedure.