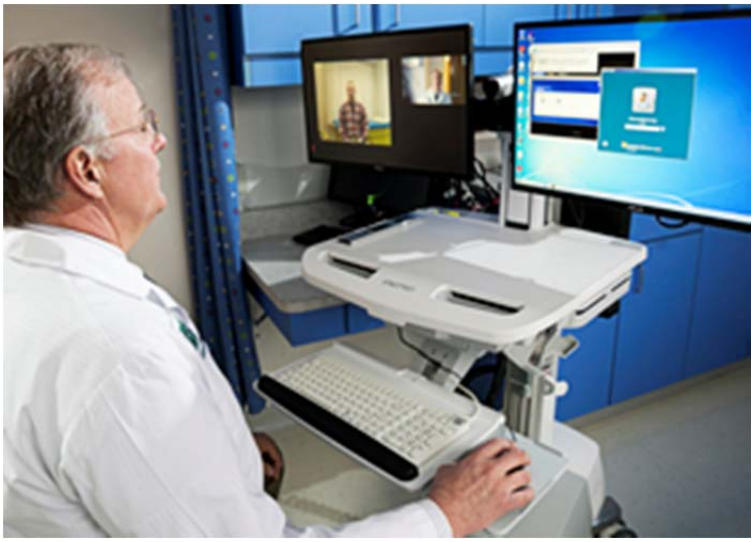
SIU HealthCare

Exceptional Medicine. Partners in Care.

NICU

TeleHealth Resource Manual



Questions?
Please Contact:
Dr. Nina M. Antoniotti, RN, MBA, PhD
Executive Director of TeleHealth & Clinical Outreach
(217)545-3830
Nantoniotti79@siumed.edu

Shantel Brown, RN, BS
TeleHealth Clinical Coordinator
(217)545-3153
Sbrown65@siumed.edu

TeleHealth Help Line: (217)545-8600

SIU HealthCare

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TeleHealth Appointment Contact List

Specialty	Clinician	Appointment	Check In	MA Contact
Audiologist	Berry, Jennifer AuD, CCC-A	217/545-8000	217/545-7070	217/545-7070
	Bussing, Anna AuD, CCC-A	217/545-8000	217/545-7070	217/545-7070
	Edmonds, Jennifer AuD, CCC-A	217/545-8000	217/545-7070	217/545-7070
	Ray, Valerie AuD, CCC-A	217/545-8000	217/545-7070	217/545-7070
	Watts, Kendra AuD, CCC-A	217/545-8000	217/545-7070	217/545-7070
Pediatrics	Faloon, Kathleen MS, CCC-A	217/545-8000	217/545-7124	217/545-7124
	Pokrzywinski, Suzi AuD, CCC-A	217/545-8000	217/545-7124	217/545-7124
	Reidy, Brittney AuD, CCC-A	217/545-8000	217/545-7124	217/545-7124
Deaf Educator	Montgomery, Caroline	217/545-8000	217/545-7124	217/545-7124
Behavioral Health	Bennett, Jeff MD	217/545-8000	217/545-8229	217/545-8229
Oncology	Fank, Patricia PsyD	217/545-8000	217/545-2538	217/545-5408
	Lane, Emily LCSW	217/545-8000	217/545-2538	217/545-5408
	Noggle, Chad PhD	217/545-8000	217/545-2538	217/545-5408
Dermatology	Stone, Stephen MD	217/545-8000	217/545-5465	217/545-0567
Endocrinology	Fratianni, Carmel MD	217/545-8000	217/545-6970	217/545-8157
	Jakoby, Michael MD	217/545-8000	217/545-6970	217/545-8157
	Poola, Rama MD	217/545-8000	217/545-6970	217/545-8157
	Burns, Cheryl RD, CDE	217/545-8000	217/545-6970	217/545-8157
	Lopinski, Sara RD	217/545-8000	217/545-6970	217/545-8157
	Smith, Sherry FNP	217/545-8000	217/545-6970	217/545-8157
	Wright, Lindsey RN, CDE	217/545-8000	217/545-6970	217/545-8157
	Yergler, Cynthia RD, CDE	217/545-8000	217/545-6970	217/545-8157
Hematology-Oncology	Desai, Meghna MD	217/545-8000	217/545-6123	217/545-1129
	Khan, Aziz MD	217/545-8000	217/545-6123	217/545-1129
	Mocharnuk, Robert MD	217/545-8000	217/545-6123	217/545-1129
	Pathak, Swati MD	217/545-8000	217/545-6123	217/545-1129
	Rao, Krishna MD	217/545-8000	217/545-6123	217/545-1129
	Sana, Sherjeel MD	217/545-8000	217/545-6123	217/545-1129
Neurology				
Memory/Alzheimer's	Ala, Thomas MD	217/545-8000	217/545-7202	217/545-7207
	Young, Charlene FNP*	217/545-8000	217/545-7202	217/545-7207
	Womack, Cindy FNP	217/545-8000	217/545-7202	217/545-7207
	Zec, Ronald PhD	217/545-8000	217/545-7202	217/545-7207
Epilepsy	Elsayed, Mona MD**	217/545-8000	217/545-7202	217/545-7207
	Murr, Najib MD	217/545-8000	217/545-7202	217/545-7207

Specialty	Clinician	Appointment	Check In	MA Contact
General Adult	DevelscHoward, Allen MD	217/545-8000	217/545-8110	217/545-8112
	Elble, Rodger MD	217/545-8000	217/545-8110	217/545-8112
	Gilchrist, James MD	217/545-8000	217/545-7202	217/545-7207
	Mueed Sajjad MD	217/545-8000	217/545-7202	217/545-7207
	Murr, Najib MD***	217/545-8000	217/545-7202	217/545-7207
Neuro-Oncology	Rauschkolb, Paula DO****	217/545-8000	217/545-7202	217/545-7207
	Johnson, Michelle NP	217/545-8000	217/545-7202	217/545-7207
Stroke Follow-up				
Vascular Neurology	Siddiqui, Fazeel MD	217/545-8000	217/545-7202	217/545-7207
	Atwood, Nicole NP	217/545-8000	217/545-7202	217/545-7207
Neurosurgery	Amin, Devin MD	217/545-8000	217/545-9451	217/545-9030
	Cozzens, Jeffrey MD	217/545-8000	217/545-9451	217/545-9030
	Espinosa, Jose MD	217/545-8000	217/545-9451	217/545-9030
Second Opinion	See website	-	-	-
Otolaryngology (ENT)	Bass, Richard MD	217/545-8000	217/545-7609	217/545-7097
	Bauer, Carol MD	217/545-8000	217/545-7609	217/545-7590
	Crosby, Dana MD	217/545-8000	217/545-7609	217/545-7590
	Ettema, Sandra MD	217/545-8000	217/545-7861	217/545-7722
	Rybak, Leonard MD, PhD	217/545-8000	217/545-7861	217/545-7725
Pediatrics				
Cardiology	Agoudemos, Melissa MD	217/545-8000	217/545-7485	217/545-1345
	Nicolas, Ramzi MD	217/545-8000	217/545-7485	217/545-1345
	Souki, Ramzi MD	217/545-8000	217/545-7485	217/545-1345
Critical Care	Basnet, Sangita MD	888/544-6464		
	Caprirolo, Giovanna MD	888/544-6464		
	Denev, Kanstantin MD	888/544-6464		
	Majcina, Ryan MD	888/544-6464		
Dev Behavior/Psych	Aylward, Glen PhD	217/545-8000	217/545-7494	217/545-7388
	Hickey, Anna PhD	217/545-8000	217/545-7494	217/545-7388
	Patterson, Janet MD	217/545-8000	217/545-7494	217/545-7388
Gastroenterology	Cox, Sybil RD, RDN, CDE	217/545-8000	217/545-7485	217/545-1345
	Mogren, Christopher FNP-BC	217/545-8000	217/545-7485	217/545-1345
	Mziray-Andrew, Charmaine MD	217/545-8000	217/545-7485	217/545-1345
	Porayette, Prashanth MD	217/545-8000	217/545-7485	217/545-1345
Primary Care	Batterman, Craig MD	217/545-8000	217/545-7485	217/545-7455
	Bennett, Gregory MD	217/545-8000	217/545-7485	217/545-1045
	Bhamidipati, Prasanta MD	217/545-8000	217/545-7485	217/545-7457
	Dela Cruz, Marthe MD	217/545-8000	217/545-7485	217/545-9227
	Mathews, Amelia MD	217/545-8000	217/545-7485	217/545-7457
	Milbrandt, Tracy MD	217/545-8000	217/545-7485	217/545-7456
	Miner, Michelle MD	217/545-8000	217/545-7485	217/545-7457
	Unal, Sheref MD	217/545-8000	217/545-7485	217/545-7455

Specialty	Clinician	Appointment	Check In	MA Contact
	Vohra, Sameer MD	217/545-8000	217/545-7485	217/545-7455
Emergency & Hospitalist	Carlson, Douglas MD	888/544-6464		
Hospitalist	Kink, Lynn MD	888/544-6464		
	Lack, Jody MD	888/544-6464		
	Lower, Tracy MD	888/544-6464		
	Majcina, Sarah MD	888/544-6464		
	Patel, Neil MD	888/544-6464		
Genetics	Groepper, Daniel CGC	888/544-6464		
Hemato/Oncology	Brandt, Gregory MD	217/545-8000	217/545-8000	217/545-8000
	Morgan, Justine FNP-BC	217/545-8000	217/545-8000	217/545-8000
	Niebrugge, Daniel MD	217/545-8000	217/545-8000	217/545-8000
Infectious Disease	Chaudhary, Subhash MD	217/545-8000	217/545-7485	217/545-7468
	Rodriguez, Marcela MD	217/545-8000	217/545-7485	217/545-7468
Neonatology	Batton, Beau MD	888/544-6464		
	Darling, Ginger MD	888/544-6464		
	Jean-Louis, Magali MD	888/544-6464		
	Leadbetter, Kristen MD	888/544-6464		
	Majjiga, Venkata MD	888/544-6464		
	Nimavat, Dharmendra MD	888/544-6464		
	Vargas, Laura MD	888/544-6464		
Neurology	Patel, Nitin MD	217/545-8000	217/545-7485	217/545-7114
	Wildrick, Diane FNP-BC	217/545-8000	217/545-7485	217/545-7114
Pulmonology	Johnson, Mark MD	217/545-8000	217/545-1830	217/545-4889
	Shafi, Anwar MD	217/545-8000	217/545-7372	217/545-1192
Pulmonary	Bakir, Haitham MD	217/545-8000	217/545-2402	217/545-7002
	Butnariu, Daniel MD	217/545-8000	217/545-2402	217/545-7002
	Eagleton, Lanie MD	217/545-8000	217/545-2402	217/545-7002
	Henkle, Joseph MD	217/545-8000	217/545-2402	217/545-7002
	Kapitan, Kent MD	217/545-8000	217/545-2402	217/545-7002
	Siddique, Muhammad MD	217/545-8000	217/545-2402	217/545-7002
	Song, Mingchen MD	217/545-8000	217/545-2402	217/545-7002
	Sreedhar, Rajagopal MD	217/545-8000	217/545-2402	217/545-7002
	White, Peter MD	217/545-8000	217/545-2402	217/545-7002
	Zaza, Tareq MD	217/545-8000	217/545-2402	217/545-7002
Reproductive Endo	Loret de Mola, Riccardo MD	217/545-8000	217/545-5117	217/545-3111
	Greenacre, Lisa NP	217/545-8000	217/545-5117	217/545-3111
Surgery				
General/Breast	Rea, David MD	217/545-8000	217/545-1322	217/545-1322
General/Endoscopic	Mellinger, John MD	217/545-8000	217/545-7861	217/545-7583
General/Colorectal	Poola, Prasad MD	217/545-8000	217/545-2538	217/545-1148
	Rakinic, Jan MD	217/545-8000	217/545-2538	217/545-1148
General/Oncology	Ganai, Sabha MD	217/545-8000	217/545-1322	217/545-1322
General/Transplant	Garfinkel, Marc MD	217/545-8000	217/545-7861	217/545-7725

Specialty	Clinician	Appointment	Check In	MA Contact
	Rea, David MD	217/545-8000	217/545-7861	217/545-7725
General/Trauma	Reid, Adam MD	217/545-8000	217/545-7861	217/545-7159
	Wall, Jarrod MB, BCh, PhD	217/545-8000	217/545-7861	217/545-7159
Plastic Surgery	Berry, Nada	217/545-8000	217/545-6314	217/545-7023
	Huettner, Franziska MD	217/545-8000	217/545-6314	217/545-7023
	Neumeister, Michael MD	217/545-8000	217/545-6314	217/545-7023
	Sommer, Nicole MD	217/545-8000	217/545-6314	217/545-7023
Vascular	Desai, Sapan MD, PhD, MBA	217/545-8000	217/545-5555	217/545-1383
	Hodgson, Kim MD	217/545-8000	217/545-5555	217/545-1383
	Hood, Douglas MD	217/545-8000	217/545-5555	217/545-1383
	Pan, James MD	217/545-8000	217/545-5555	217/545-1383
Transplant Nephro	West, Bradford MD	217/545-8000	-	-
Trauma	Sutyak, John MD	217/545-8000	217/545-7861	217/545-7159
Urology	Beck, Stephen MD	217/545-8000	217/545-2538	217/545-1148
	Bednarchik, Cynthia FNP-BC	217/545-8000	217/545-7150	217/545-7252
	El-Zawhry, Ahmed MD, MSC	217/545-8000	217/545-7150	217/545-7793
	Grampsas, Samuel MD	217/545-8000	217/545-7150	217/545-7252
	Kohler, Tobias MD, MPH	217/545-8000	217/545-7150	217/545-7252
	McVary, Kevin MD	217/545-8000	217/545-7150	217/545-7252
	Schwartz, Bradley DO, FACS	217/545-8000	217/545-7150	217/545-7252
	Wilson, Charles MD	217/545-8000	217/545-7150	217/545-7793
Oncology	Alanee, Shaheen MD, MPH	217/545-8000	217/545-2538	217/545-1148
Pediatrics	Mathews, Ranjiv MD	217/545-8000	217/545-7150	217/545-7272

Additional Notes:

Neurology

**-415 N 9th location Tuesday afternoon and all day Thursday

****-415 N 9th location Friday

*****-415 N 9th location Monday

******-415 N 9th location Wednesday

Pediatrics

Alternate MA Contact for Pediatric Primary Care: 217/545-7796

Alternate MA Contact for Pediatric Neurolgy: 217/545-8018

Pulmonology

Alternate Check in for Pulmonology: 217/545-7157

SIU HealthCare

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TeleHealth Clinician Fax

Specialty	Clinician	Fax
Audiologist	Berry, Jennifer AuD, CCC-A	217/545-0253
	Bussing, Anna AuD, CCC-A	217/545-0253
	Edmonds, Jennifer AuD, CCC-A	217/545-0253
	Ray, Valerie AuD, CCC-A	217/545-0253
	Watts, Kendra AuD, CCC-A	217/545-0253
Pediatrics	Faloon, Kathleen MS, CCC-A	217/545-9716
	Pokrzywinski, Suzi AuD, CCC-A	217/545-9716
	Reidy, Brittney AuD, CCC-A	217/545-9716
Deaf Educator	Montgomery, Caroline	217/545-9716
Behavioral Health	Bennett, Jeff MD	217/545-
Oncology	Fank, Patricia PsyD	217/545-0548
	Lane, Emily LCSW	217/545-0548
	Noggle, Chad PhD	217/545-0548
Dermatology	Stone, Stephen MD	217/545-7438
Endocrinology	Fratianni, Carmel MD	217/545-9125
	Jakoby, Michael MD	217/545-9125
	Poola, Rama MD	217/545-9125
	Burns, Cheryl RD, CDE	217/545-9125
	Lopinski, Sara RD	217/545-9125
	Smith, Sherry FNP	217/545-9125
	Wright, Lindsey RN, CDE	217/545-9125
	Yergler, Cynthia RD, CDE	217/545-9125
Hematology-Oncology	Desai, Meghna MD	217/545-1411
	Khan, Aziz MD	217/545-1411
	Mocharnuk, Robert MD	217/545-1411
	Pathak, Swati MD	217/545-1411
	Rao, Krishna MD	217/545-1411
	Sana, Sherjeel MD	217/545-1411
Neurology		
Memory/Alzheimer's	Ala, Thomas MD	217/545-4282
	Young, Charlene FNP*	217/545-4282 & 545-8115 Thur
	Womack, Cindy FNP	217/545-4282
	Zec, Ronald PhD	217/545-4282
Epilepsy	Elsayed, Mona MD**	217-545-4282
	Murr, Najib MD	217/545-4282

Specialty	Clinician	Fax
General Adult	DevelscHoward, Allen MD	217/545-8115
	Elble, Rodger MD	217/545-8115
	Gilchrist, James MD	217/545-4282
	Mueed Sajjad MD	217/545-4282
	Murr, Najib MD***	217/545-4282
Neuro-Oncology	Rauschkolb, Paula DO****	217/545-4282
	Johnson, Michelle NP	217/545/4282
Stroke Follow-up		
Vascular Neurology	Siddiqui, Fazeel MD	217-545-4282
	Atwood, Nicole NP	217/545-8115
Neurosurgery	Amin, Devin MD	217/545-9719
	Cozzens, Jeffrey MD	217/545-9719
	Espinosa, Jose MD	217/545-9719
Second Opinion	See website	
Otolaryngology (ENT)	Bass, Richard MD	
	Bauer, Carol MD	
	Crosby, Dana MD	
	Ettema, Sandra MD	
	Rybak, Leonard MD, PhD	
Pediatrics		
Cardiology	Agoudemos, Melissa MD	217/545-8105
	Nicolas, Ramzi MD	217/545-8105
	Souki, Ramzi MD	217/545-8105
Critical Care	Basnet, Sangita MD	
	Caprirolo, Giovanna MD	
	Denev, Kanstantin MD	
	Majcina, Ryan MD	
Dev Behavior/Psych	Aylward, Glen PhD	
	Hickey, Anna PhD	
	Patterson, Janet MD	
Gastroenterology	Cox, Sybil RD, RDN, CDE	217/545-9759
	Mogren, Christopher FNP-BC	217/545-9759
	Mziray-Andrew, Charmaine MD	217/545-9759
	Porayette, Prashanth MD	217/545-9759
Primary Care	Batterman, Craig MD	217/545-0130
	Bennett, Gregory MD	217/545-0130
	Bhamidipati, Prasanta MD	217/545-0130
	Dela Cruz, Marthe MD	217/545-0130
	Mathews, Amelia MD	217/545-0130
	Milbrandt, Tracy MD	217/545-0130
	Miner, Michelle MD	217/545-0130
	Unal, Sheref MD	217/545-0130

Specialty	Clinician	Fax
	Vohra, Sameer MD	217/545-0130
Emergency & Hospitalist	Carlson, Douglas MD	
Hospitalist	Kink, Lynn MD	
	Lack, Jody MD	
	Lower, Tracy MD	
	Majcina, Sarah MD	
	Patel, Neil MD	
Genetics	Groepper, Daniel CGC	
Hemato/Oncology	Brandt, Gregory MD	
	Morgan, Justine FNP-BC	
	Niebrugge, Daniel MD	
Infectious Disease	Chaudhary, Subhash MD	217/545-5018
	Rodriguez, Marcela MD	217/545-5018
Neonatology	Batton, Beau MD	
	Darling, Ginger MD	
	Jean-Louis, Magali MD	
	Leadbetter, Kristen MD	
	Majjiga, Venkata MD	
	Nimavat, Dharmendra MD	
	Vargas, Laura MD	
Neurology	Patel, Nitin MD	217/545-5018
	Wildrick, Diane FNP-BC	217/545-5018
Pulmonology	Johnson, Mark MD	217/545-5018
	Shafi, Anwar MD	217/545-5018
Pulmonary	Bakir, Haitham MD	217/545-4734
	Butnariu, Daniel MD	217/545-4734
	Eagleton, Lanie MD	217/545-4734
	Henkle, Joseph MD	217/545-4734
	Kapitan, Kent MD	217/545-4734
	Siddique, Muhammad MD	217/545-4734
	Song, Mingchen MD	217/545-4734
	Sreedhar, Rajagopal MD	217/545-4734
	White, Peter MD	217/545-4734
	Zaza, Tareq MD	217/545-4734
Reproductive Endo	Loret de Mola, Riccardo MD	
	Greenacre, Lisa NP	
Surgery		
General/Breast	Rea, David MD	217/545-7442
General/Endoscopic	Mellinger, John MD	
General/Colorectal	Poola, Prasad MD	217/545-0952
	Rakinic, Jan MD	217/545-0952
General/Oncology	Ganai, Sabha MD	
General/Transplant	Garfinkel, Marc MD	

Specialty	Clinician	Fax
	Rea, David MD	
General/Trauma	Reid, Adam MD	
	Wall, Jarrod MB, BCh, PhD	
	Wohltmann, Christopher MD	
Plastic Surgery	Berry, Nada	
	Huettner, Franziska MD	
	Neumeister, Michael MD	
	Sommer, Nicole MD	
Vascular	Desai, Sapan MD, PhD, MBA	217/545-1366
	Hodgson, Kim MD	217/545-1366
	Hood, Douglas MD	217/545-1366
	Pan, James MD	217/545-1366
Transplant Nephro	West, Bradford MD	
Trauma	Sutyak, John MD	217/545-7795
Urology	Beck, Stephen MD	
	Bednarchik, Cynthia FNP-BC	217/545-7255
	El-Zawhry, Ahmed MD, MSC	217/545-7255
	Grampsas, Samuel MD	217/545-7255
	Kohler, Tobias MD, MPH	217/545-7255
	McVary, Kevin MD	217/545-7255
	Schwartz, Bradley DO, FACS	217/545-7255
	Wilson, Charles MD	217/545-7255
Oncology	Alanee, Shaheen MD, MPH	
Pediatrics	Mathews, Ranjiv MD	

Technology Report Form

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 accessing the Technology Report Form, completing the TeleHealth Technology Report Form, the information that will be needed by the Telepresenter.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. Technology Report Form: the form is used to document visits with the patient and what, if any issues occurred during the visit.

3.2. MHN: indicates **SIU** Medical History Number.

3.3. Audio jitter: when sound being transmitted is of poor quality, echo is present, delay in mouth moving and sound being heard occurs, or sound being transmitted is heard intermittently.

3.4. Video jitter: when image being transmitted is of poor quality, delay in movement appearing on screen or appearing jerky, or image appearing intermittently.

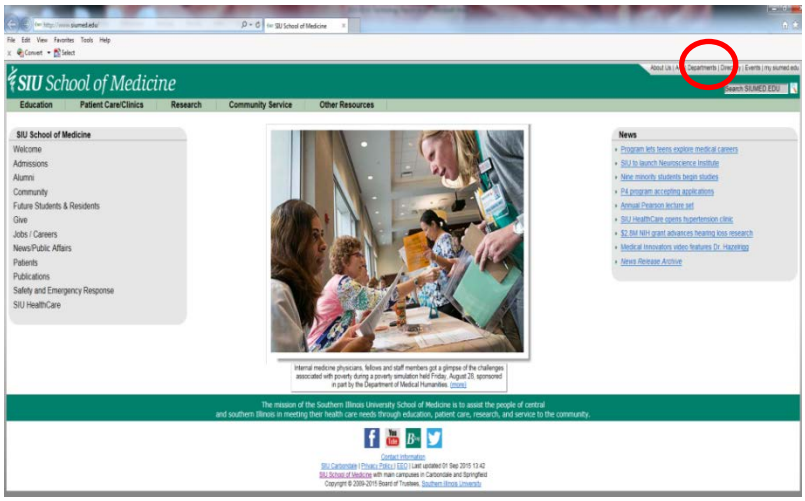
3.5. Frozen picture: the picture does not change or move.

3.6. No Audio: there is a picture on screen but no sound being transmitted

3.7. No Video: there is sound but the screen is blue or black.

4. PROCEDURE BODY

All clinical staff responsible for presenting of patients to all SIU Specialties shall be proficient and appropriately trained in completing the TeleHealth Technology Report Form via TeleHealth technologies.



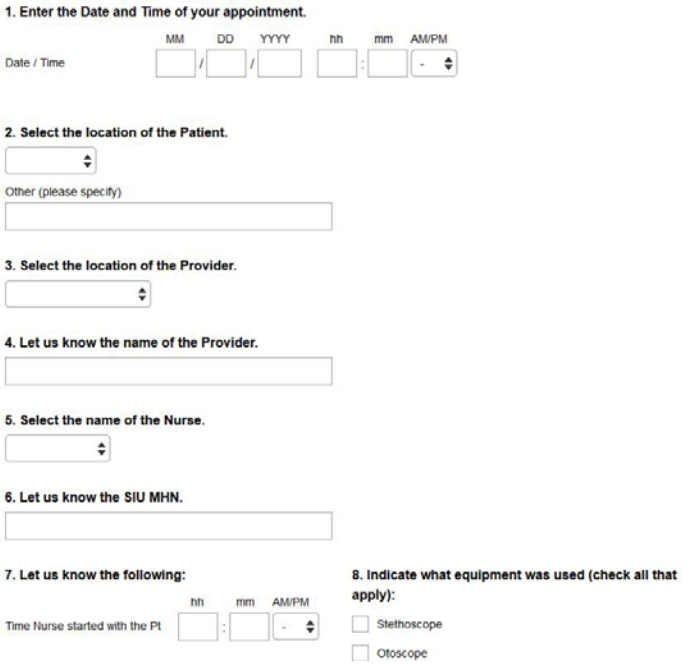
4.1. Accessing Technology Report Form:

a. To access the TeleHealth Technology Report Form, go to www.siumed.edu.

b. Once the SIU School of Medicine home page is on the desktop, click on Departments in the top right corner.

c. Select TeleHealth and Video Services Department.

4.2. Fill in the designated areas as indicated.



a. Date needs to be filled in using a two digit month, two digit day, and four digit year (i.e. mm/dd/yyyy).

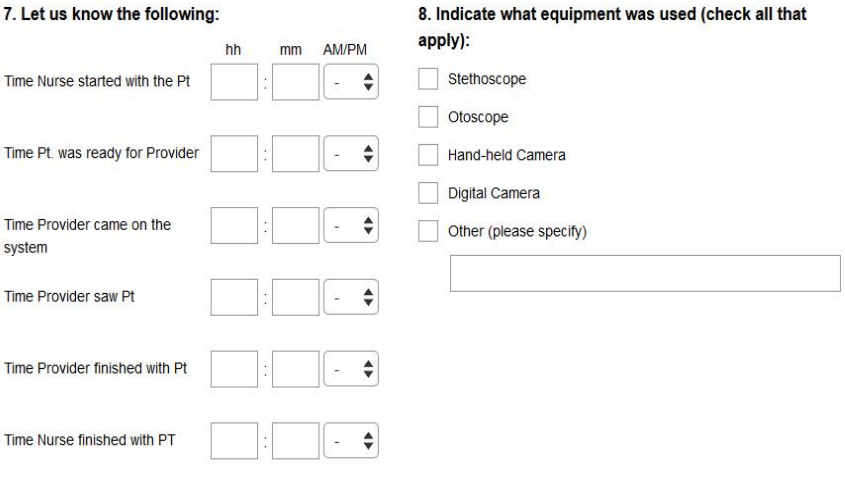
b. All time fields throughout the form need to be expressed in military time (i.e. 2:00pm would be 1400).

c. Patient site: select the patient location.

d. Provider: free text the name of the provider seeing the patient.

e. Nurse: select the TeleHealth nurse from the drop down menu.

f. MHN: type in the **SIU MHN**.



g. Presenter start time is the time the TeleHealth nurse calls the patient back to prep for the consult.

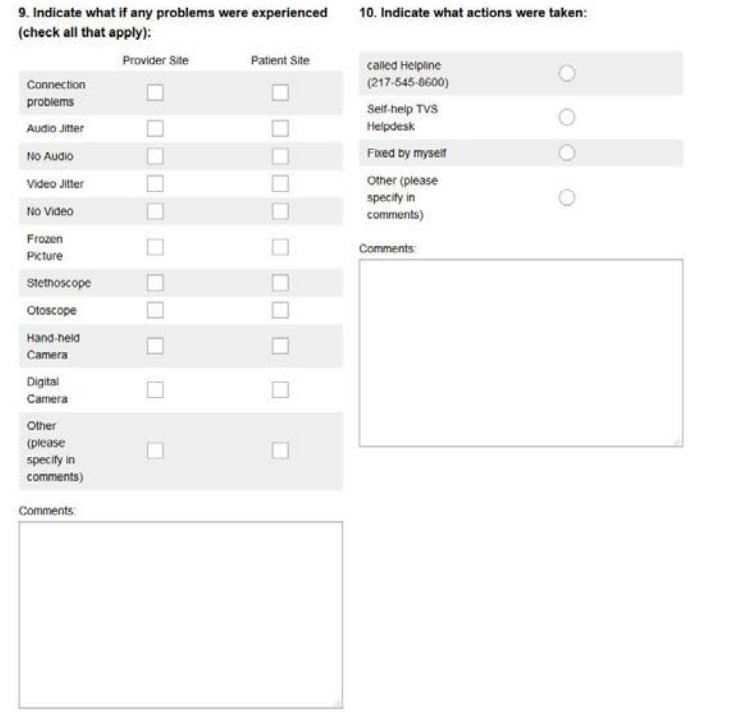
h. Presenter time patient ready: is the time the TeleHealth nurse was finished prepping the patient for the TeleHealth

consult.

i. Time Provider saw Patient: is the time the provider exam of the patient begins

j. Time Provider finished with patient: is the time the provider exam of the patient ends

k. Presenter stop time: is the time the consult ends.



4.3. Equipment Issues

a. Indicate what equipment was used by clicking next to the box in front of the equipment (i.e. stethoscope, otoscope, hand held video camera, digital camera).

b. If no equipment was used, do not check any of the listed items.

c. Technology problems; select “None" if no problems occurred. Otherwise, indicate the problems that occurred by clicking next the box in front of the problem. Multiple boxes may be checked.

d. Indicate if the problems were with the Provider site or Patient site or both.

e. Action Taken; check the box in front of what action was taken to resolve the problems. If no action taken, do not check any box.

f. Comments: any comments can be entered in the "Comments" box.

g. Click on the submit button located at the bottom of the page when finished.

h. If you have problems or questions regarding the form, please call the TeleHealth Help Line at **(217)545-8600**

5. ADDITIONAL RESOURCES

5.1. Additional Questions:

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Appointment Referral Process

1. SCOPE

1.1. This procedure applies to all regional telepresenters working with SIU Health Care providers, SIU Health Care's partner TeleHealth organizations providing care via TeleHealth, and SIU appointment staff.

2. PURPOSE

2.1. To outline the process for TeleHealth patient sites to obtain a referral appointment for a patient via TeleHealth with an SIU provider.

3. PROCEDURE

3.1. This procedure outlines the requirements for referral and registration of a patient receiving care via TeleHealth from an SIU provider, including patient health information, insurance information, NPR, and consent to treat if necessary (new patients only).

3.1.1. TeleHealth patient site requesting an appointment with a specific specialistfor a patient shall call the SIU Call Center at 1-800-342-5748 Monday through Friday from 8:00 am to 4:30pm, and request a TeleHealth appointment with the specialty.

3.1.2. At the time of the referral request, Call Center staff will forward the caller to the appropriate appointment pod in the appropriate division.

3.1.3. The Division appointment staff will:

a. <u>New Patients to SIU</u>:
   i. Register the patient as a new patient and make an appointment for the patient; or
   ii. Register the patient as a new patient and create a temporary appointment.

b. <u>Established Patients to SIU</u>:
   i. Make an appointment for the patient; or
   ii. Create a temporary appointment

3.1.4. The following information must be available at the time of the referral request:

a. Patient name, address, phone number, and emergency contact;
b. Patient's insurance provider including group and subscriber numbers; and
c. PCP diagnosis.

d. A copy of the last dictation from the PCP and appropriate labs and x-ray reports are also requested prior to the date of the appointment.

3.1.5. Prior to the day of the appointment, a copy of the patient's insurance cards, driver's license (if the patient has one), and a copy of the labs, radiology reports, and the primary care clinician's dictated note regarding the patient's current problem, must be faxed to the respective appointment desk.

3.1.6. If the registration information is not received prior to the day of the appointment, the telepresenter must fax the information on the day of the appointment but prior to the time of the appointment.

3.1.7. If the information is not received prior to the appointment, the patient may not be able to be seen.

3.1.8. The follow-up appointment will be scheduled by the SIU provider office.

4. ADDITIONAL RESOURCES

4.1. Additional Questions:

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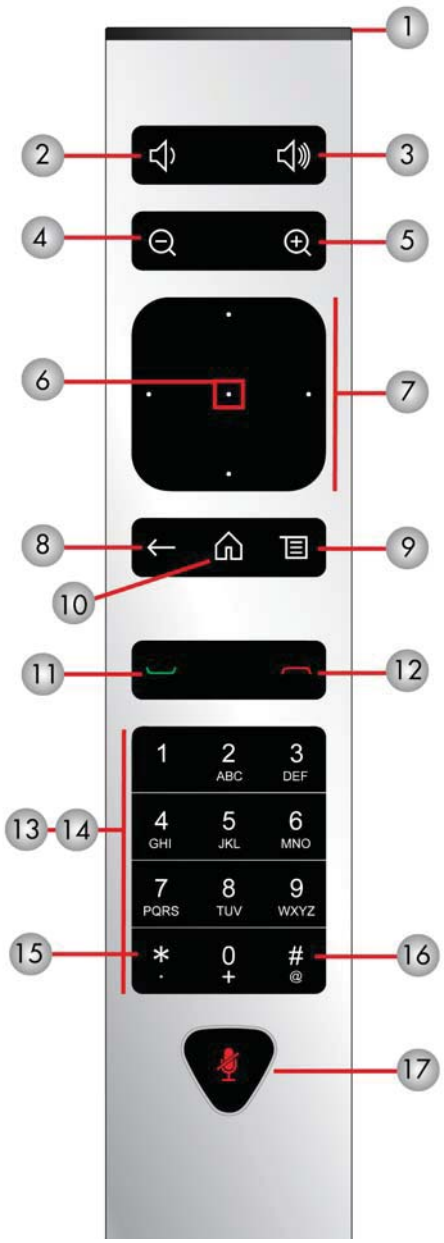
Remote Control Buttons and Descriptions

Descriptions of the remote control parts are shown in the following table and corresponding graphic.

Remote Control Button Descriptions

Number	Description
1	LED IR emitter
2	Decrease speaker volume.
3	Increase speaker volume.
4	Zoom camera out.
5	Zoom camera in.
6	Press center **Select** button to select highlighted menu item.
7	Navigate through menu items using the Up, Down, Left, and Right buttons; pan/tilt the camera.
8	Delete letters or numbers or go back to a previous screen.
9	Display the Menu screen.
10	Return to the Home screen.
11	Place, answer call.
12	End, reject call.
13	Enter letters or numbers.
14	In camera control mode, move the camera to a stored preset or press and hold a number to store a preset.
15	• Generates an asterisk if the cursor is in a text field. • Generates a period if the cursor is in a numeric field.
16	Generates touch (DTMF) tones. Press #, followed by DTMF keys to send
17	Mute or unmute a microphone.

Parts of the Remote Control



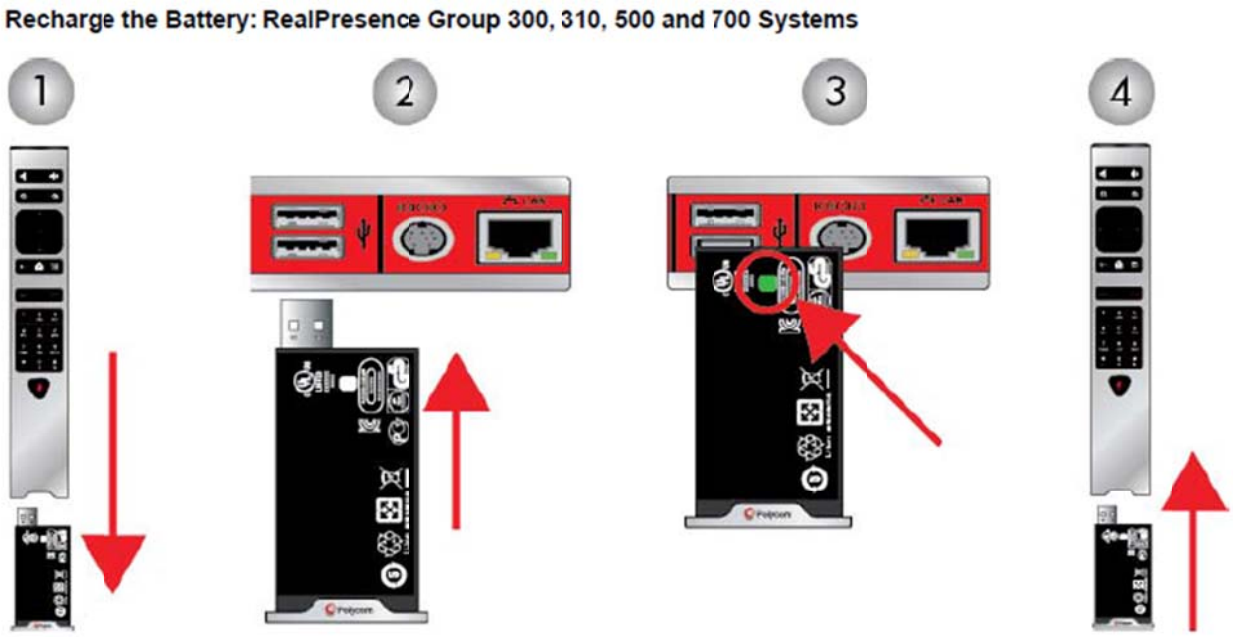
Recharge the Remote Control Battery:

Your system setup sheet shows how to charge the battery in the remote control the first time. When the remote control battery power is at 10% or less, a notification displays on the home screen. Although other notifications might override the low battery notification, the low battery notification returns after the other notifications are dismissed. The low battery notification does not display while the system is in a call.

Use a USB 2.0 port to charge the remote battery. The Polycom Videoconfrence unit has two USB 2.0 ports on the back of each system.

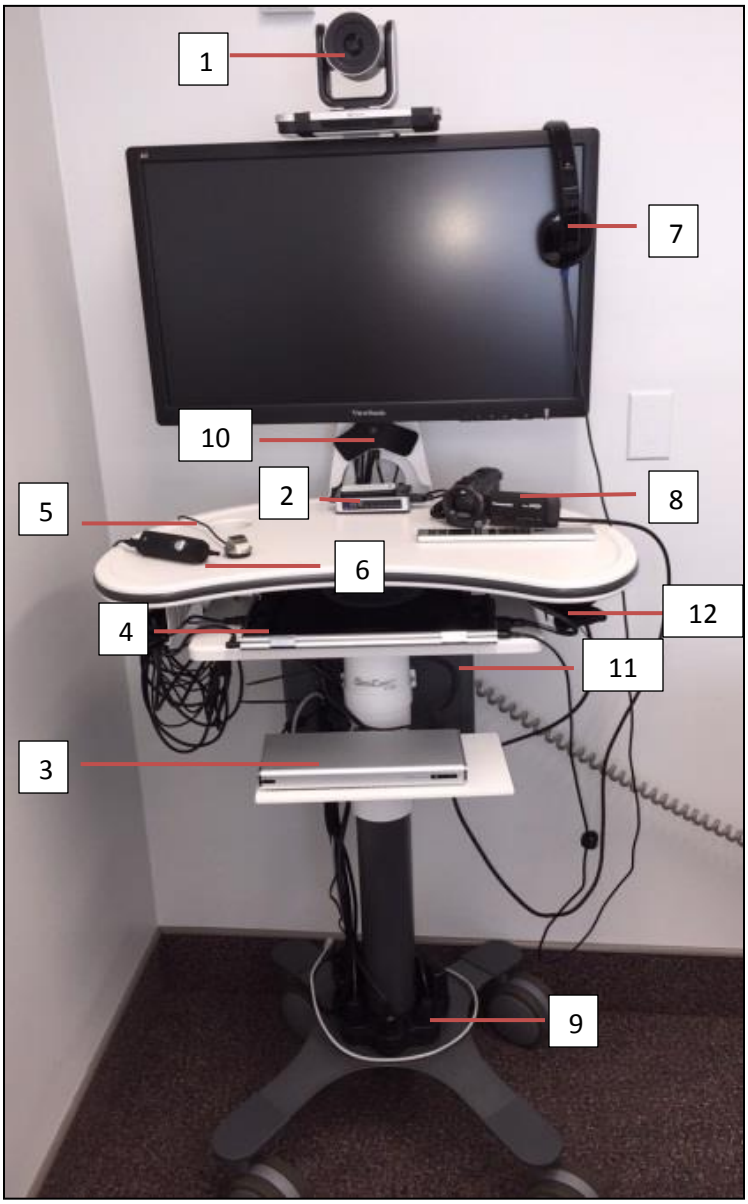
To recharge the remote control battery:

1. Pull the battery out of the end of the remote control.
2. Insert the USB plug of the battery into a USB 2.0 port such as the one on your system.
3. Wait until the status light on the battery turns green before removing it from the port. Recharging the battery might take from 20 minutes to multiple hours.
4. Insert the charged battery into the remote control.



Operating TeleHealth Cart

1)	Patient Camera (sends patient image to provider)
2)	HDMI Switch Box & Remote
3)	Codec
4)	Computer (controls software and peripherals
5)	Stethoscope
6)	Otoscope
7)	Headphones
8)	Video Camera
9)	Power Strip
10)	Speaker
11)	Basket
12)	Height Adjustment lever



1. When using the cart:
    a. Cart should always be plugged in and on
    b. Laptop should always be on (14)
    c. Television can be turned off between visits
2. Use the height adjustment lever to raise and lower the level (12)of the camera in order to help frame the patient and maintain eye contact(lower if in chair, raise for tall exam table)
3. Peripherals (5,6,8) should always be stored in a safe location when the presenter is not using them and locked location when finished with exams for the day

Communicating Over Video

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 communicating over video via TeleHealth audio and video equipment to ensure the video and audio quality is maintained for a TeleHealth visit and to outline equipment and procedures for doing so.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. **Communication**: is the activity of conveying information through verbal and non-verbal ques.

4. POLICY BODY

Communicating over video is simple and brings people closer together when long distances prevent people being in the same room. Communicating over video, although quite easy, is not exactly like being in the same room. Remembering these few tips will help the video conference go much smoother and everyone will feel a sense of presence of the people participating in the conference.

4.1. Always frame yourself to look like a TV broadcaster.

a. Make sure that your face is lit.

b. Speak in a normal tone.

c. People want to see you! Most people are camera shy and it may be difficult, but it is important for all to be able to see you.

4.2. Don't be afraid to use the camera to focus on people who are talking to the group. This will help improve communication and foster interaction.

4.3. Remember that even though others are not in the room with you, they ARE in the room with you. Don't do anything while attending a video-conference that you wouldn't do if others were in the room with you.

4.4. Hearing well is an important part of video conferencing. Make sure to mute your microphone when you are eating lunch, rustling papers, or generally making any sort of noise on your end, unless you are speaking.

a. For highly interactive discussions, turn the microphone "ON", remember to keep

other noise to a minimum.

4.5. Although video conferencing is very visual; it really is about listening.

a. Remember to let the person on the video finish talking before you start.

b. Talking over someone else is not only rude, but will not allow the sound to come through.

c. Most times, the person on video will not hear what you have said when you talk at the same time they are speaking.

d. If two people talk at the same time, good manners are for both parties to stop talking, and if one party will indicate to the other with hand signals, to go ahead and speak.

e. Someone needs to take the lead, which means to stop talking and allow the other person to go first.

4.6. Do not move the microphone after the video system is turned on and several minutes have passed.

a. Do not move the microphone to each speaker as this confuses the system.

b. If during the conference a party cannot hear, speak up by lifting your chin and just speaking slightly louder. No need to yell.

c. If you cannot hear the other side, ask them to speak up or you may turn up the volume.

4.7. When leaving an interactive session, announce to the group that you must leave. This helps the conference go smoother for others at remote sites

5. ADDITIONAL RESOURCES

5.1. Additional Questions:

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Operational Procedure

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 obtaining and setting up TeleHealth equipment, videoconference system, and cameras for any TeleHealth visit and to provide direction to the visit in order to improve efficiencies for the patient, provider and TeleHealth nurse.

3. DEFINITIONS & EXPLANATIONS OF TERMS

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

3.2. TeleHealth Consult: is used interchangeably with TeleHealth visit. It refers to any TeleHealth appointment.

3.3. Combined Medical Record (CMR): refers to the online electronic medical record.

3.4. Speaking with extra volume (over modulating) causes distortion at the other site.

4. PROCEDURE BODY

To serve as a guide for obtaining and setting up TeleHealth equipment, videoconference system, and cameras for any TeleHealth visit. The intent of this guideline is to provide direction to the visit in order to improve efficiencies for the patient, provider and TeleHealth nurse.

4.1. Preparing for a TeleHealth Consult:

a. Review patient records.

b. Prepare any forms needed for the TeleHealth visit (i.e. Sleep Disorder Questionnaire, Pain Questionnaire, Health History forms, etc).

c. Technology Report Form: complete as much of the information as possible before the visit.

4.2. Preparing the room for a TeleHealth consult:

a. log in to the laptop using "telehealth" as the password

b. Position: position the chair(s) or the exam table for optimum viewing.

c. Light: If exam lighting is needed, turn on the Halogen lamp or exam lamp about 30 minutes prior to visit to fill the room with light. If exam room has windows, close the blinds.

d. Background: the background behind the patient should be clear of pictures, objects, shelves, etc. to minimize distractions for the provider. Video blue is the optimum background.

e. Noise: Turn bell down on phone, after the patient and provider are connected for visit.

f. Interruptions: Put sign up "TeleHealth Visit in Progress" outside the door.

4.3. Preparation and set-up of videoconference system:

a. At the first of every month (prior to any TeleHealth appointments), reboot the video codec/Polycom by turning off device, waiting 10 seconds and turn back on.

- To turn device off
  - Touch power sensor on the front of the system (not the television) until the light indicator changes color
    - Blue: On
    - Flashing Amber: shutting down

b. Turn on TV.

c. Check volume level on TV using the volume control on the TV. Volume should be mid-level. Volume may be adjusted as needed during the consult.

d. Check the volume on the Polycom by using the Polycom remote. Volume on the Polycom should be mid-level. Never turn the Polycom volume up more than 2/3 as the audio will distort. If more volume is needed during the consult, turn up the TV.

e. The TV screen should show the Polycom menu.

f. If the TV stays black, press "MENU" on the Polycom remote. The menu should appear.

g. If the screen is still black, check to see that the Polycom Codec is turned on. A green light is lit on the front when the codec is on.

h. A picture of the room should appear in the video display window.

4.4. Use of room camera remote control: (Please refer to document the Remote guide)

a. Locate the Polycom codec (room camera) remote.

b. To adjust camera(s), press the navigation buttons on the remote to move the

camera up, down, left, or right.

c. Use the zoom buttons on the camera to zoom in or pan out. Press the "+" button and the camera will zoom in. To pan out, use the "-".

d. To adjust the volume you hear from far the far site, use the volume buttons located at the top of the remote.

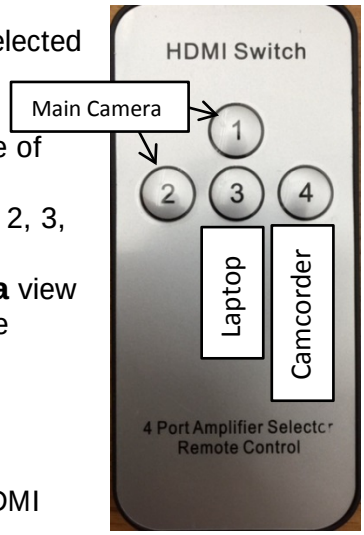
e. To mute the microphone, press the black triangular button located under the number pad on the remote. The button may have a red microphone with a slash through it.
- The red mute indicator light is on when the system is muted
- Muting the microphone **does not** mute audio coming from any device connected to the content audio inputs

f. When the remote control battery power is at 10% or less, a notification displays on the home screen. This will require the removable battery to be recharged.

4.5. Connection of peripheral cameras to videoconference system:

a. Auxiliary camera sources are attached to a USB cord or HDMI extension cable.

b. Camera sources attaching directly to the Polycom are selected by the use of the "HDMI Switch" remote control.



c. To access a peripheral that is connected through the use of the laptop and USB cords:
- Utilizing the "HDMI Switch" remote, select either 1, 2, 3, or 4
  - **1 or 2** will return you to the **main camera** view
  - **3** will allow you to share the content on the laptop **(otoscope)**
  - **4** will allow you share the content on the **handheld camera** (otoscope)

d. To stop using peripherals simply press 1 or 2 on the "HDMI Switch" remote

4.6. Starting the consult:

a. The patient will check in to Reception following standard clinic procedures and will wait in the waiting room until called by the TeleHealth nurse.

b. Introduce yourself to the patient if it is the first visit and escort the patient to the exam room.

c. Explain the TeleHealth consult to the patient if it is the first visit. Give the patient an opportunity to ask questions about the videoconferencing system and any aspect of the visit.

Step 1: Orient the patient to the videoconference system.

Step 2: displayed on the full screen while the full screen picture of the patient that is displayed to the clinician is on a small inset window on their screen.

Step 3: Explain the functioning of the audio in videoconferencing. Only one site can speak at a time. Any sound made while a provider is speaking may cause temporary break up of sound. Tell the patient if any part of the conversation breaks up or is missed, the provider can be asked to repeat or clarify after he or she is done with their statement.

Step 4: Explain the delay in audio signal and how this affects communication.

Step 5: Ask the patient to let the TeleHealth nurse know if they are having a hard time hearing the provider. The volume can be adjusted.

Step 6: Explain that privacy is very important and that no one else is viewing the visit. The visit is not videotaped. If the patient would like to discuss something with the provider in private, s(he) should feel free to ask the TeleHealth nurse to step outside the room.

Step 7: If the patient is hesitant to talk, encourage them to look at the TV and pretend the provider is in the room.

Step 8: Encourage the patient to speak in a normal tone of voice.

Step 9: If the patient has been hesitant to ask questions during the visit, or you know they have a question they have not asked, encourage them to do so when the visit is concluding.

Step 10: If the patient or other participants are making noise while the provider is speaking and sound is breaking up, remind them to be quiet.

d. Frame the patient in the center of the screen so that the face and shoulders are visible, with a small space above the head.

e. During the interview, orientation process, note any questions or concerns the patient may have.

g. At the conclusion of the consult/visit: give the patient evaluation forms with a postage paid, self-addressed envelope if it is their first TeleHealth consult/visit, or if they are using a new type of technology.

h. Complete the TeleHealth Technology Report Form. Route to SIU campus TeleHealthOffice

i. If technology problems are experienced before or during a TeleHealth consult/visit that require immediate assistance anytime between 0800 and 1630:

Step 1: call SIU Telehealth: 217-545-8600

Step 2: If technology problems occur that have been resolved or do not interrupt the visit, complete the Self-Help desk technology report for each problem.

5. ADDITIONAL RESOURCES

5.1. Additional Questions:

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Thinklabs One
Digital Stethoscope

Quick Reference Guide

Congratulations. You now own a state of the art auscultation instrument made with advanced technology and fine materials. Thinklabs One is designed for the most discerning users who seek the highest quality.

This Quick Reference is your initial guide to using your Thinklabs One. The best designed products are easy to use, with more advanced features hidden below the surface, available to those who require them. Use this Guide to familiarize yourself with the basic functions and then go to our website to explore One in more depth, according to your needs.

Go to http://thinklabsone.com/manual for detailed User's Manual
http://thinklabsone.com/support for Customer Support

ⓘ Tips for Optimal Use

Instructions - There's a lot more to learn - see http://thinklabsone.com/manual

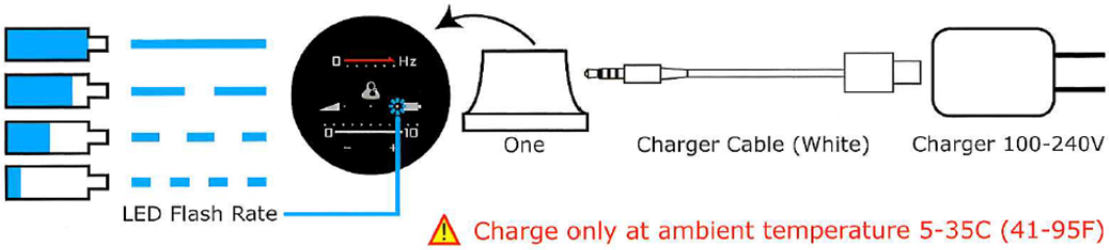
Sound Levels - Do not set your stethoscope volume louder than necessary. Adjust volume so that heart and lung sounds are clear and comfortable to hear. Protect your hearing!

Diaphragm Pressure and Skin Contact - Making skin contact will provide you with the best sound quality. If you do listen through clothing, avoid listening through thick garments.

Headphone Fit - Make sure your headphones are as sealed as possible against outside noise to enhance your listening. Use Thinklabs headphones or other high quality headphones.

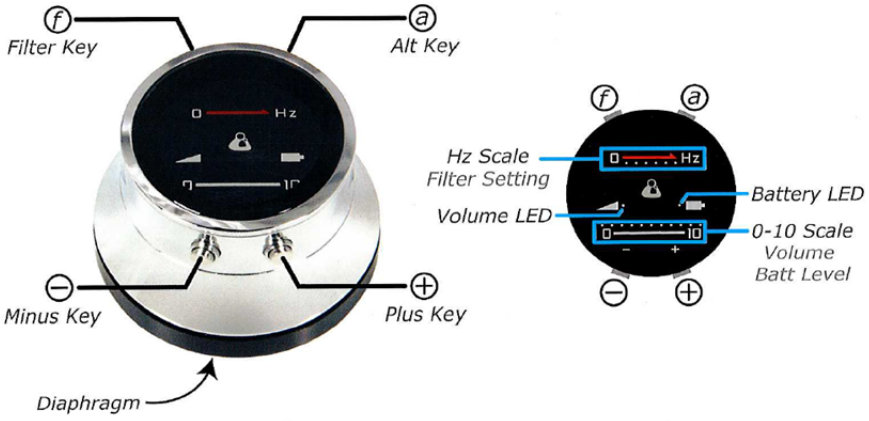
Cleaning - Use alcohol or other cleaning agents, but do not allow liquids inside **One**.

I. Charger Connection

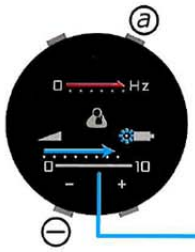


⚠ Charge only at ambient temperature 5-35C (41-95F)

Controls & Display



1. Power On / Off



Power On - Hold ANY Key until power turns on.

Power Off - Push & Hold ⓐ and ⊖ simultaneously for 2 seconds, then release.

Auto Shutoff - Your **One** will shut off automatically after preset auto shutoff time.

Battery Level flashes at Power Off

2. Volume Control & Display

Click ⊖ or ⊕ to adjust Volume Level.
Hold keys to step quickly up or down.

⚠ To reduce risk of tinnitus or hearing loss, listen at moderate volume levels.

3. Filter Selection & Display

ⓘ
- Filters selectively amplify low,medium or high-pitched sounds, to select for low-pitched heart sounds, mid-range murmurs or high-pitched lung sounds. **One** has multiple filters for greater control over sound than stethoscopes limited to the choice between Bell or Diaphragm.
- Pitch (i.e. frequency) is measured in Hertz (Hz) and displayed graphically on a low-to-high Hz Scale, which shows relative frequency range - filters that amplify low-pitched sounds show LEDs towards the left, filters for higher pitched sounds show LEDs towards the right.
- See http://thinklabsone.com/filters for further explanations and details.

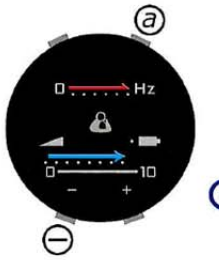
Hz Scale shows pitch range of filter selection

Select Filter - a. Hold ⓕ Key for ~2 seconds.
b. Release Key when LEDs change.
c. Repeat to cycle through filters.

Set two "Favorite Filters" - select 1st filter, select 2nd filter, then alternate easily between the two selections:

1. Select 1st Favorite - Steps a through c above.
2. Click (do not hold) ⓕ Key.
3. Select 2nd Favorite - Steps a through c again.
4. Click (do not hold) ⓕ Key to alternate between Favorites.
5. To use any other filter, simpy do Steps a through c anytime and the Favorite you're currently using will be changed.

4. Battery Level Check



To Check Battery Level:
1. Push any key to Power On.
2. Push & Hold ⓐ and ⊖ simultaneously for 2 seconds.
3. Battery Level flashes across 0-10 Scale when **One** powers off.

ⓘ Typical battery life in use ~ 240 minutes active listening.
Standby/Power Off time > 4 weeks.

5. Setting Auto Shutoff Time

Start with **One** in the Power Off condition.
1. Turn Power On.
2. Click ⓐ Key once for each minute of the desired auto shutoff time.
   For example, click ⓐ Key 3 times for a 3 minute shutoff time.
3. Push and HOLD ⓐ Key until One shuts off (~10 seconds).

ⓘ
- Factory Default = 2 minute auto shutoff time.
- Allowable range is one to ten minutes (1 - 10 clicks).
- To DISABLE Auto Shutoff (unit stays on), do 12 Clicks in step 2 above.

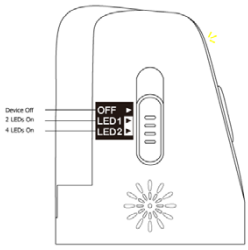
Preparing and Using USB Otoscope

USB Otoscope Instructions:

FireflyPro is the software that is used for the USB Otoscope

1) Using the HDMI remote, select 

2) Turn the Otoscope on using the switch towards the rear of the device. (Turn the switch to off when finished with scope)



3) Open the FireflyPro software by double clicking the icon 

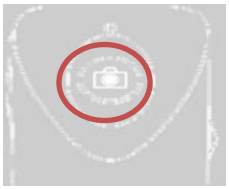
4) When using the device, it is recommended that you hold the device with the transparent cover forward with your thumb on the equipment leaving the index finger free to rotate and adjust the focus wheel.

5) Using controls on otoscope (Refer to Scope Image and Tool bar)

a. **Focus**: based on relative distance of the observed object, the focus wheel can be turned left for higher magnification. If larger field of view is needed, the focus wheel can be turned to the right.
   - To focus, begin with focus wheel in the default position (arrow on **50**)

b. **Brightness**: If brightness needs adjusted, the knob on the rear left side of the scope can be turned to increase or decrease brightness.

c. **Capturing Image**: To capture an image, press and release the capture button. A shutter sound will be made as confirmation of image capture.



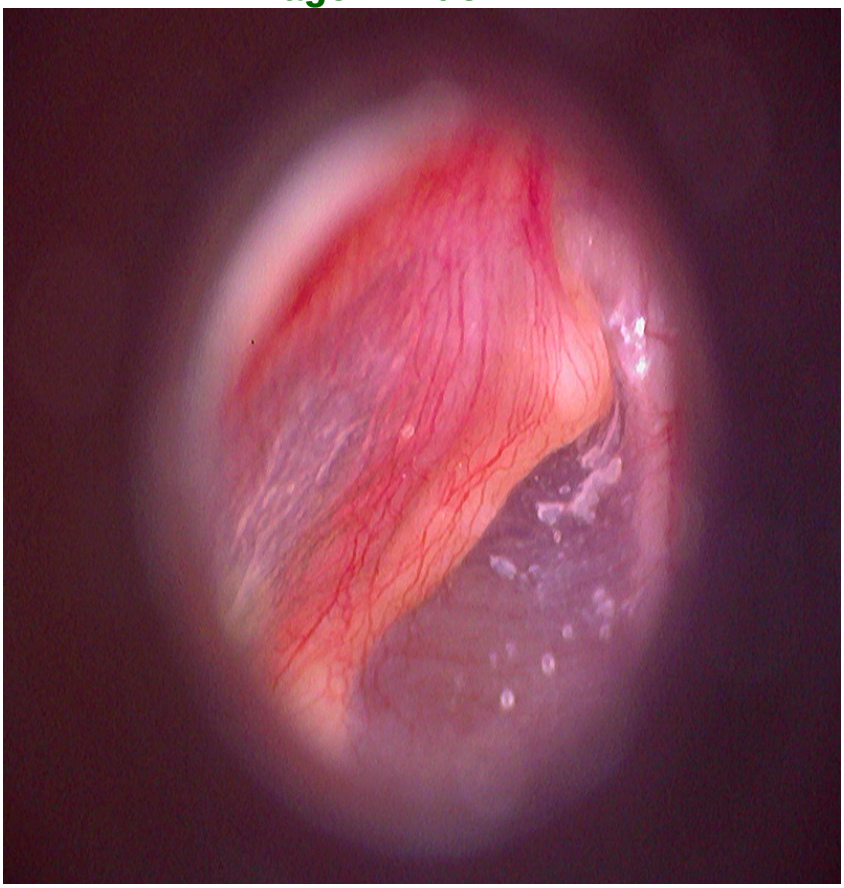
6) Plug specula into round, concave guide. Ensure tight fit before use. Pull specula to remove.

7) When finished, turn off scope, close software and clean if needed.

*****IT IS IMPORTANT TO ALWAYS LOGOUT OF SOFTWARE AND NOT MINIMIZE ON YOUR TOOLBAR*****

****ONLY CLEAN WITH DRY CLOTH WEEKLY! NO LIQUIDS****

Image Window



Additional Questions:

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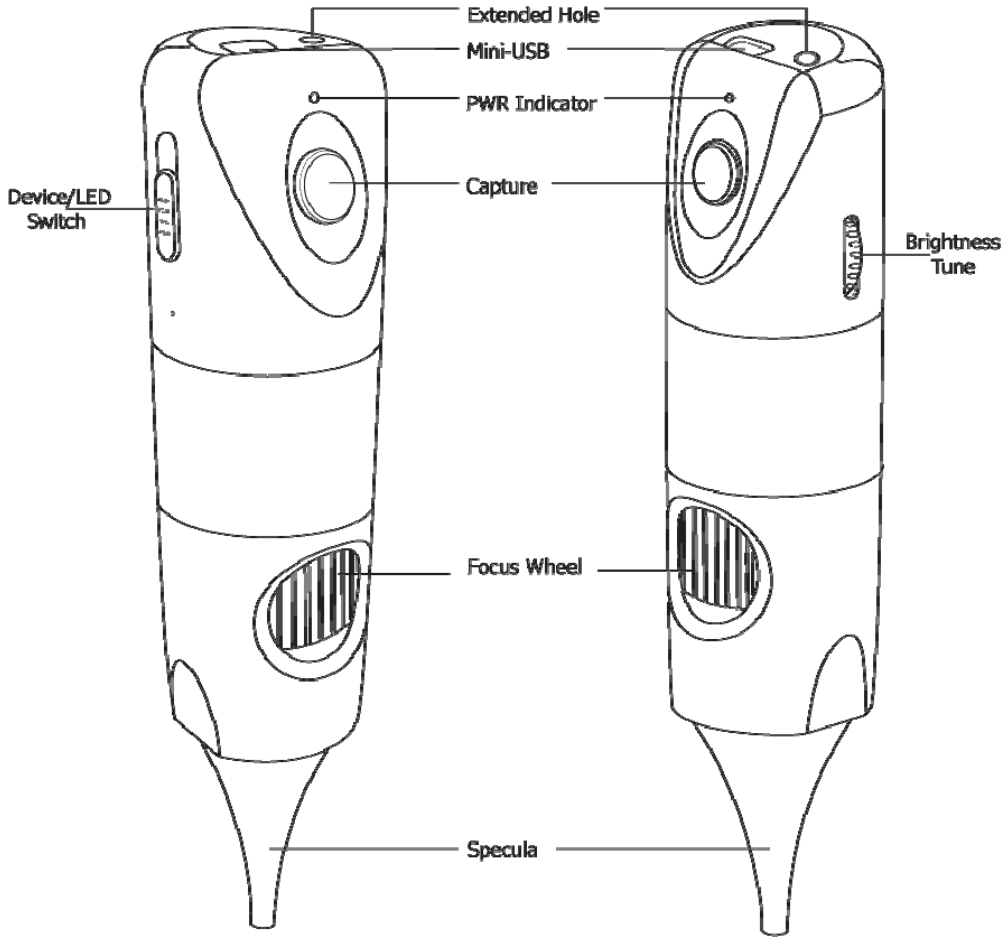
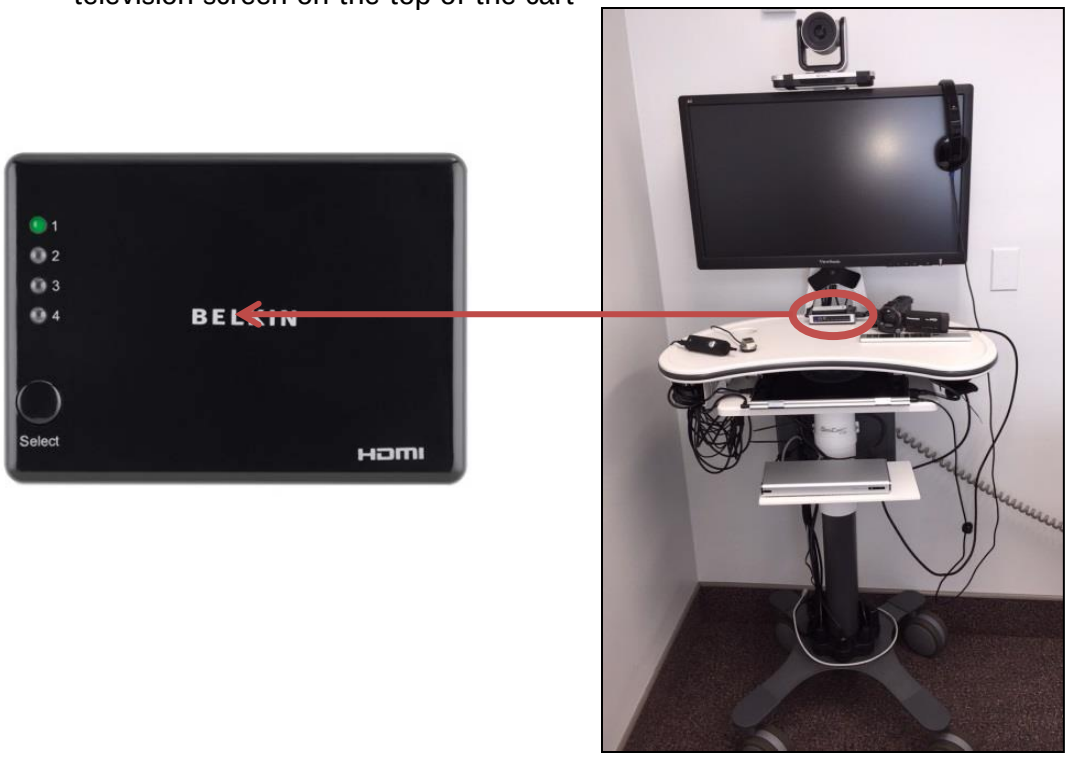
NOMENCLATURE



Preparing and Using HDMI Handheld Video camera

HDMI Handheld Video camera instructions:

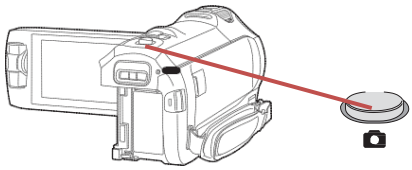
1) Make sure the device is connected to the HDMI input box located under the television screen on the top of the cart



2) Turn device on

3) To use the device, switch the input by using the "HDMI Switch" remote and selecting 4

4) When in picture mode, press the camera button half way for auto focus. Once focused, press the button fully



5) If images are to be downloaded, remove the memory card from the SD card slot located on the bottom of the device and send to provider.

6) Delete images when done and place memory card back in camera.

7) To charge the battery, connect the DC cable to the DC input terminal located on the opposite side of the camera screen. The other end of this cable will connect to USB hub located behind the television screen. The battery capacity indication is located in the upper right corner of the video camera screen. If there is less than 3 minutes remaining, the battery will have one cell and will turn red.

Additional Questions:

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Maintaining Technical Integrity

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 ensure the video and audio quality is maintained for a TeleHealth visit and to outline equipment and procedures for doing so.

3. DEFINITIONS & EXPLANATIONS OF TERMS

3.1. TeleHealth Nurse (THN): is the clinical presenter of the patient at the remote patient site and has a direct patient-provider relationship.

3.2. Information Systems Technician (IS): is a non-clinical staff member whose primary responsibility is to maintain the integrity of the video network, hardware and respond to Helpline calls.

3.3. Interactive TeleHealth Consult: is a real time, two-way interaction with audio and video, between a patient and consulting provider.

3.4. SIU TeleHealth runs on the proprietary IS network of dedicated bandwidth of 100Mbps.The hardware and software are all HIPAA compliant as well as the human systems responsible for operation and maintenance of the network.

4. POLICY BODY

The policy is to ensure that video and audio quality is maintained at a level sufficient for clinical care during interactive TeleHealth consultations.

4.1. Responsibilities

a. The TeleHealth nurse is responsible for ensuring the integrity of the quality of audio and video during a clinical consultation between a provider and a patient.

b. The TeleHealth Director ensures adequate training in equipment use, communication techniques, and interactive styles successful for communicating clinic information over TeleHealth technologies for providers and the TeleHealth nurses.

c. The TeleHealth nurse ensures adequate communication during a clinical consult via TeleHealth technologies between the patient and the consulting provider.

d. The IS department is responsible for maintaining the integrity of the video network including the network and all hardware.

4.2. The role of the TeleHealth nurse in maintaining technical integrity:

a. Demonstrates sufficient clinical competency in the proper use of videoconferencing equipment and in trouble shooting problems during a consultation.
b. Instruct patients how to communicate via TeleHealth technologies prior to consultation.
c. Observes communication between the consulting provider and patient during the consultation with the exception of Psychiatry consults or for those in which the patient requests the TeleHealth nurse leaves the room.
d. In the instance the nurse is asked to leave the room during a consult:

Step 1: The nurse will ensure all equipment is working properly before leaving.

Step 2: The nurse will stay for a brief introductory period to ensure two-way communication with the provider.

Step 3: The nurse will inform the patient where s/he will be in the event that technical difficulties occur.

e. If the TeleHealth nurse determines that the provider and the patient did not have proper two-way communication due to technical difficulties or speaking at the same time, the nurse will ask the patient or provider to repeat any necessary information.
f. If the quality of the audio or video is insufficient enough to recreate the interaction experienced in- person is acceptable to either the patient, provider, the patient's family or the consulting provider; the TeleHealth nurse may request the consultation be stopped and rescheduled in person or TeleHealth.

4.3. Technical Failure Reporting:

a. At the time the TeleHealth nurse discovers a technology problem before a consultation begins and before the patient is in the room, s/he will complete all on-site problem solving procedures.
b. If the TeleHealth nurse cannot resolve the technical problem, s/he will call the Helpline (217)545-8600.
c. The technology problems will be worked on prior to the patient being placed in the room to ensure privacy.
d. If the patient had already been placed in the room, the TeleHealth nurse will move the camera off the patient and onto a position in the room where the TeleHealth nurse can be viewed but where all electronically transferred patient data cannot be viewed before calling the Helpline.
e. The TeleHealth nurse will then inform the patient that s/he needs to involve technical staff to determine the source of the problem. The patient will be given

the option of waiting in the exam room or in the waiting area.

f. The Helpline will follow internal procedures for identifying the source of the problem and getting the right technician for solving the problem as quickly as possible.
g. The Helpline technician will call the TeleHealth nurse to inform them who the technician is and that the technician may view the patient site remotely until the technology problem is resolved.
h. The technician will resolve the problem and will inform the TeleHealth nurse through videoconferencing system that the problem is resolved.
i. The technician will announce to the TeleHealth nurse that they are dropping out of the call and will not participate unless the TeleHealth nurse calls with further problems.
j. All technology problems will be documented by the TeleHealth nurse on the TeleHealth Technology Report Form which is forwarded to the TeleHealth Director
k. All technology failures are tracked and analyzed by the Administrative team for causes to help minimize or eliminate repeat technical problems during consultations.
l. All technology failures are tracked and analyzed by the Administrative team for causes to help minimize or eliminate repeat technical problems during consultations

5. ADDITIONAL RESOURCES

5.1. Additional Questions:

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Patient Security

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. DEFINITIONS & EXPLANATIONS OF TERMS

2.1. TeleHealth Nurse (THN): is the clinical presenter of the patient at the remote patient site and has a direct patient-provider relationship.

2.2. Information Systems Technician (IS): is a non-clinical staff member whose primary responsibility is to maintain the integrity of the video network, hardware and respond to Helpline calls.

2.3. Interactive TeleHealth Consult: is a real time, two-way interaction with audio and video, between a patient and consulting provider.

2.4. SIU TeleHealth runs on the proprietary IS network of dedicated bandwidth of 100Mbps.The hardware and software are all HIPAA compliant as well as the human systems responsible for operation and maintenance of the network.

3. POLICY BODY

The SIU respects and will protect every patient's right to have all information they share with health care professionals kept confidential.

Patient information, regardless of its media, i.e. written, verbal, or stored in paper, photograph, video, or electronic format may be used for a variety of legitimate purposes; for example, patient care, quality review, education, research, public health, legal, and reimbursement. Regardless of its use, patients must be assured the information they share with health care professionals will remain confidential. Without assurance, patients may withhold critical information which could affect the quality and outcome of care, as well as the reliability of the information.

3.1. Conduct

a. TeleHealth and all inclusive activities associated with TeleHealth are a part of SIU and are governed by the policies and procedures of SIU with regards to privacy, confidentiality, security, and Health Insurance Portability and Accountability Act compliance.

b. No separate policies or procedures are necessary to govern TeleHealth activities. c.

Specific procedures may apply to regulated patient populations such as those receiving substance abuse and mental health services.

d. Employees observing other employees violating patient privacy during TeleHealth consultations in collaboration with SIU HealthCare should report the

incident to their manager.

e. All alleged violations of the TeleHealth Security Policy will be investigated by managers and/or appropriate personnel.

f. Employees found in violation of this policy are subject to disciplinary actions up to and including, immediate termination.

3.2. Procedure

a. The nurse educates the patient to allow for private time with the patient and clinician if the patient so chooses.

b. The provider must announce if anyone else is in the room and ask permission. If the patient does not want anyone in the room, the provider must excuse the staff member from the consult.

c. If the patient had already been placed in the room, the TeleHealth nurse will move the camera off the patient and onto a position in the room where the TeleHealth nurse can be viewed but where all electronically transferred patient data cannot be viewed prior to calling the Helpline.

d. The TeleHealth nurse will then inform the patient that s/he needs to involve technical staff to determine the source of the problem. The patient will be given the option of waiting in the exam room, waiting area or to reschedule.

4. ADDITIONAL RESOURCES

4.1. Additional Questions:

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Framing the Patient

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 framing the TeleHealth patient on the TeleHealth videoconference system and cameras for any TeleHealth visit in order to improve efficiencies for the patient, provider and TeleHealth nurse as well as provide an optimal view of the clinical condition.

3. DEFINITIONS & EXPLANATIONS OF TERMS

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

3.2. TeleHealth Consult: is used interchangeably with TeleHealth visit. It refers to any TeleHealth appointment.

3.3. Zoom: a function that allows for a closer view of the subject

3.4. Focal Distance: focal length is an indicator of the distance from the subject and determines how magnified or "zoomed in" the distant image is(i.e. if images of something are all framed the same a differences can arise because the focal length is getting longer (zooming in) as the camera moves further away from the subject.

3.5. Contrast: the ability to distinguish between differences in intensity of an image

3.6. Perpendicular Angle: the relationship between two lines which meet at a right angle or at 90°

3.7. Gaze Angle: the difference between where an individual is looking at the screen and the position of the camera

4. PROCEDURE BODY

To serve as a guide for setting up TeleHealth equipment, videoconference system, cameras and patient for any TeleHealth visit. The intent of this guideline is to provide direction order to improve efficiencies for the patient, provider and TeleHealth nurse and ensure transmission of the best image possible.

4.1. Telepresenter Role: A good Telepresenter is key to a successful TeleHealth program and plays a critical and active role in the exam. The effective Telepresenter will:

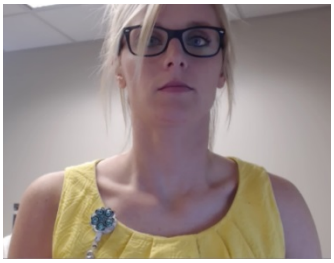
- Accurately report
  - Observations of the subject
  - Impressions about the camera's view and if the image is being transmitted accurately reflects patient condition

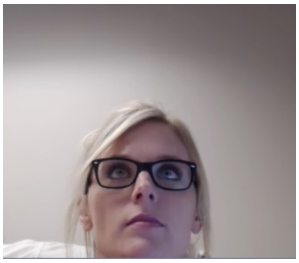
- Evaluate and properly adjust the height, angle and distance of the codec and cameras from the subject
- Appropriately adjust camera position and zoom
- Create optimal lighting conditions
- Appropriately position and reposition patient for exam
- Will be able to accurately reposition the camera
- These adjustments must occur in a fluid manner that is responsive to the examination needs and activity of the patient (i.e. identifying congenital anomalies which can be small and subtle will require optimal positioning whereas movement, tone, and reflex must occur when the subject is in a relaxed state)

4.2. Codec Image Display:

- The ideal patient image will be as close as comfortable with the head and shoulders centered. The codec permits different displays for the Telepresenter and remotely located physician as well as the same display
- When attempting to properly frame the patient's head and shoulders, start with the zoom out and with the nose of the patient in the center of the screen. Zoom in as much as possible while maintaining clarity and without "cutting off" the top of the patient's head or not having the shoulders in the image.
    - The goal of this image is to mimic as closely as possible an in person visit

- If the image is not centered or natural parts of the image are cut off on the screen, this can the distraction for the person at the remote location.





- Occasionally, having the same image displayed to the Telepresenter can allow him or her to more readily make changes that will enhance the view for the clinician.
- Poor lighting conditions, camera angles or camera focal points can result in an inability of the clinician to accurately observe abnormal skull shape, pigment differences (especially eye color), respiratory effort, eye movement abnormalities, muscle tone abnormalities, and deep tendon reflexes.

4.3. Codec Camera Placement:

- Prior to the exam:
  - It is useful to identify the minimal focal distance for the equipment's cameras by zooming in on an object in the room.
  - Identifying a location so the camera is at a minimal distance away and can allow maximal zoom while maintaining the ability to focus on features.
- The codec camera needs to be placed in a location that allows the patient to directly look at the clinician
  - If the camera is placed too close to the patient or too high above them, they will appears to be looking up rather than directly at the clinician

4.4. Lighting:

- Appropriate lighting will create images that are evenly lit and accurately reproduce colors. Poor use of lighting can cause images to have shadowing, appear to dark or cause bright spots. This type of image will not allow an accurate exam.
- Low angle lighting can be useful to distinguish skin surface characteristics
- A light source in front of the patient can reduce shadows that occur on the face if only overhead lighting is used or if there is a light source behind the patient
- Be sure to not create bright spots on patient with lighting as this can cause poor contrast quality
- Exam tables or chairs that a patient may sit in should not be placed in front of a

window. This can cause backlighting which can cause quality deterioration of patient image transmitted to the clinician

4.5. Background Color and Distraction:

- Any background distractions, such as pictures, equipment, and windows, should be as minimal as possible. Such objects in the background can create distractions for the clinician
- A solid and preferably blue background is ideal for video and image transmission.
    - A solid background will provide the least amount of distraction
    - A blue background is ideal for video and images, as this provides the most adequate and natural contrast of the image

4.5. Image Viewing and Angle Considerations: It may require multiple images from various angles to achieve an optimal and accurate exam and/or diagnoses.

- A feature that is perpendicular to the plane of view is the most accurately seen. These angles should provide the most accurate and true to life image in order for the clinician to appreciate any abnormalities or anomalies.
- The telepresenter may need to position body parts being examined, perpendicular to the camera through repositioning of the equipment and the patient
    - Move and turn the patient as needed to provide an optimal examination

4.6. Considerations for Special Populations:

- For neonatal intensive care examinations, the optimal camera angle may be directly above the isolette and angled down subject. This angle will maximized the amount of the subject perpendicular to the camera
- For congenital anomalies, viewing the subject so the feet extend away from the camera allows better visualization of skull shape, hand shape, and the top of foot to better visualize anomalies such as syndactyly or cephalic deformities
- For a neurologic exam, repositioning the patient so that the face is perpendicular to the camera can help to better detect abnormal facial or eye movement, sucking, and rooting. Making sure the patient's joint angles are perpendicular to the camera can assist in viewing spontaneous movements and reflexes

- For a more accurate examination, a neonate's hands must be held open and flat as often times, they will have hands clenched at rest.
    - Hand proportion can be distorted when it is not placed perpendicular to the camera's viewing angle.

5. ADDITIONAL RESOURCES

5.1. Additional Resources:

T L Wenger, J Gerdes, K Taub, D T Swarr, M A Deardorff and N S Abend (2014)
Telemedicine for genetic and neurologic evaluation in the neonatal intensive care unit
Journal of Perinatology **34**, 234-240 (March 2014) | doi:10.1038/jp.2013.159

5.2. Additional Questions:

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NICU 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 TeleNeonatology visit and to outline equipment, procedures, and physical exam requirements for working with a Neonatologist 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 Neonatology Services or any provider who may need a component of Neonatology physical exam shall be proficient and appropriately trained in providing neonatal exam data via TeleHealth technologies.

4.1. Neonatology Referral Process:

☐ To request a TeleNeonatology consult, call SJH Connect number (888/544-6464) and request the TeleHealth Services of a Neonatologist.

☐ When calling, be ready to give the name of the Telepresenter, the site, and the location at that site (i.e. Nurse Nancy Jones at General Hospital in the NICU) in order to ensure the clinician call the proper polycom system.

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

4.3. Patient Preparation

☐ If present, inquire as to whether or not the caregiver has ever "seen the doctor on a television screen for an appointment" before

☐ If the caregiver 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, length, weight and gestational age.

☐ Also have the following information available:

- Prenatal care
- Birth mothers age, gravidity, parity
- Birth mother's history of drug use (including prescription drugs and alcohol use)
- Birth mother's history of infections
- Birth mother's environmental exposures during pregnancy
- Medical history of birth mother (i.e. eclampsia, diabetes, heart disease, etc.)
- Relevant birth details (i.e. appearance of amniotic fluid, vaginal or cesarean delivery),
- Any other relevant medical information or birth complications contributing to clinical condition
- Any other vital statistic related to the clinical condition (i.e. abdominal girth of infant, etc.).

☐ Enter results in the EHR.

☐ Complete the SIU Neonatal Health History form

☐ Have a list of current medications available (include dose and frequency).

☐ Be prepared to discuss patient feeding schedule, feeding position, amount, method (nipple, nasogastric, etc.), length of time, toleration of feeds, and any feeding complications

☐ Know when the last stool was, as well as the appearance and consistency. Relay any abnormalities if necessary

☐ Remove patient clothing as necessary to obtain adequate view while maintaining body temperature

☐Frame the patient: Using the minimal focal distance and maximal zoom that allows for a clear picture, position the infant entire body (head to toe) in the center of the screen. During this time also note the lighting and background color being sure both of these provide an adequate and optimal view for the clinician. Presenter can control the codec camera; however, the presenter should ask the clinician if he or she would prefer to control the camera in the NICU in order to manipulate what he or she is viewing. Be prepared to assist the clinician by moving and positioning the neonate as necessary to allow an optimal view of the clinical condition. For further guidance on patient framing, please refer to *Table 4: Considerations to Improve Examination* (located at the end of the *NICU Presenting Procedure*) and *Procedure 2015.0110, Framing the Patient*

☐If needed, take pictures of the affected area(s) according to the SIU Photography Protocol

☐**Fax** neonatal assessment form to the provider prior to the start of the appointment

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

4.4. Assisting Provider with Physical Exam

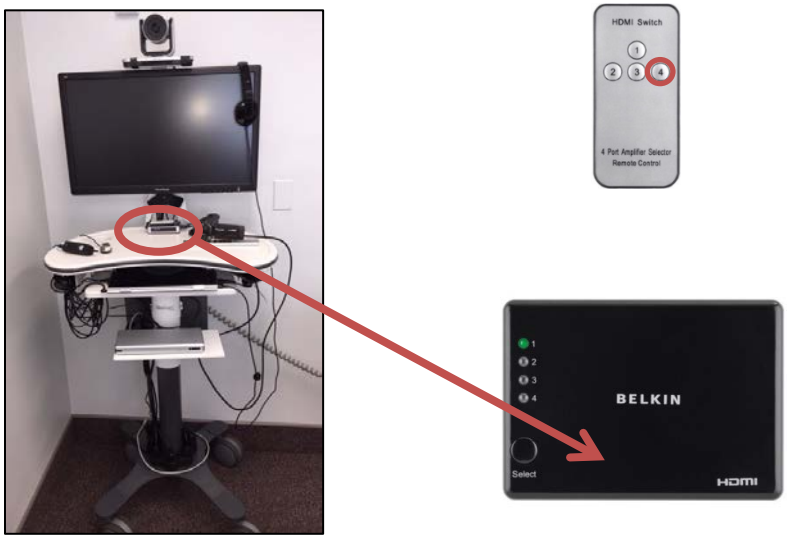
☐Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

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

☐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 to 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 Neonatologist 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

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

☐ Dress the patient and assist with any caregiver needs

4.6. Post Consult Considerations

☐ Allow the caregiver the opportunity to ask questions

☐ Assist the caregiver with instructions regarding the care of their neonate and reinforce or discuss any new information or instructions from the clinician regarding the patient.

☐ If needed, make sure a follow-up TeleHealth exam has been scheduled

☐ Give appropriate contact information to caregiver.

☐ If the caregiver was present during the consultation, give them 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.

☐ Follow organizational procedures for charging a facility fee

☐ 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 Resources:

T L Wenger, J Gerdes, K Taub, D T Swarr, M A Deardorff and N S Abend (2014)
Telemedicine for genetic and neurologic evaluation in the neonatal intensive care unit
Journal of Perinatology **34**, 234-240 (March 2014) | doi:10.1038/jp.2013.159

5.2. Additional Questions:

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Table 4

Considerations to improve examination.

Ease of Telemedicine Assessment	Examination Component	Considerations
Easy to Assess	Eyes	Eye spacing can be obtained if infant opens eyes. Bedside clinician can hold measuring tape up to face to measure palpebral fissures.
	External ear	Flexion/extension of head may cause normal ears to appear low-set. Zoom in to evaluate for ear pits. Bedside clinician should fold back helix to assess for creases.
	Nose	Accurate view of nasal bridge requires side view of face.
	Lips	Zoom in to evaluate for lip pits.
	Neck	Bedside clinician must demonstrate extranuchal skin exam
	Chest	If inter-nipple distance or chest circumference are desired, the telemedicine physician can observe the technique of the bedside physician
	Arms and Legs	Must be extended to accurately assess proportions. Repositioning to have a perpendicular view of joints helps view deep tendon reflex movements, and evaluate for spontaneous movements.
	Hands	Creases, nails, syndactyly, cortical thumbing, palmar reflexes.
	Umbilical stump	Zoom in, particularly if umbilical lines are in place.
	Genitalia	Not difficult except for testicular exam, which is not achievable due to need for tactile exam.
Possible with Optimization	Hair	Hair whorls easier to appreciate in infants with darker hair.
	Skin	Pigmented lesions, rashes, skin flaking and scars were seen easily. Overall skin tone, faint capillary hemangiomas require optimal lighting.
	Spine	Repositioning required so spine is perpendicular to camera.
	Eyes	Iris color, colobomas, proptosis (better appreciated with eyes open and on lateral view), pupil size and reactivity, eye movements.
	Skull shape	Multiple views of head must be obtained, but still difficult since head is not a planar structure
	Chin	Micrognathia is better appreciated on lateral view of face
	Hands	Clinodactyly, palm length:finger length.
	Feet	Soles easily visualized with feet pointed towards camera. Dorsum best visualized with neonate rotated so feet away from camera.
	Muscle Tone	Bedside clinician must help ensure neonate is relaxed when assessing. Appendicular tone can be assessed when clearly increased or decreased since leads to position changes (ie. frog leg positioning) but not achievable with mild changes since requires tactile examination. Axial tone can be assessed by positioning neonate perpendicular to camera for vertical suspension and horizontal suspension.

Dermatology 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 TeleDermatology visit and to outline equipment, procedures, and physical exam requirements for working with a Dermatologist 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 Dermatology Services or any provider who may need a component of dermatology physical exam shall be proficient and appropriately trained in providing dermatological exam data via TeleHealth technologies.

4.1. Dermatology Referral Process:

☐ In order to schedule a TeleDermatology 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

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 SIU Dermatological 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)545-7438)** any patient information **not** documented in the EHR system 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 Dermatologist 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 dermatologist 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 (Allergic Dermatitis form, Atopic Dermatitis form, 5-fluorouracil/imiquimod, Acne, Methotrexate)

☐ 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:

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Handbook & Policy Library

TELEHEALTH REQUIRED DERMATOLOGY EQUIPMENT & SUPPLIES

Effective: 06/01/2015

Materials necessary for SIU TeleHealth Facilities providing TeleDermatology

1. Standard equipment of a primary care outpatient facility doing small procedures. On the same tray with the surgical equipment, two inches of 2x2s, a dozen cotton tipped applicator sticks, small scissors, and mouse tooth forceps will be needed; also, optionally or available needle driver, suture scissors and extra pickups .

2. The shave biopsy tray to include:
    a. small formalin containing specimen bottles for shipment to laboratory
    b. individual use packets of petroleum jelly
    c. disposable curette (3mm, 4mm, and 5mm)
    d. #15 scalpel blades and #10, #11 and #15 scalpels with handles
    e. assorted sizes of Band-Aids
    f. roller gauzes, Coban
    g. aluminum chloride 35%
    h. DTM fungal culture medium (Accuderm, Inc/Ft. Lauderdale, FL 33309) or the ability to perform fungal cultures and KOH examinations for dermatophyte fungi
    i. alcohol prep pads
    j. culture materials for both bacterial and yeast culture
    k. Hibiclens

3. The punch biopsy tray to include:
    a. small formalin containing specimen bottles for shipment to laboratory
    b. individual use packets of petroleum jelly
    c. disposable biopsy punch (3mm,4mm,5mm and 6mm)
    d. assorted sizes of Band-Aids
    e. roller gauzes, Coban
    f. aluminum chloride 35%
    g. DTM fungal culture medium (Accuderm, Inc/Ft. Lauderdale, FL 33309) or the ability to perform fungal cultures and KOH examinations for dermatophyte fungi
    h. alcohol prep pads
    i. culture materials for both bacterial and yeast culture
    j. Hibiclens

Additional Questions:

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TELEHEALTH DERMATOLOGY PHOTOGRAPHY PROTOCOL

Effective: 06/01/2015

Photography Protocol

The TeleHealth nurse will optimize the best possible diagnostic interpretation environment, utilizing a digital still camera to capture a quality image; this is a vital component in assuring the optimal communication of patient clinical data to the Dermatologist for TeleHealth consults. **DO NOT USE THE MACRO SETTING**.

*****Collect images prior to making the check-in call to physician office*****

- ☐ Use blue pad as a background setting if possible.
- ☐ Stay at least 6 to 8 inches from the object to capture.
- ☐ Make sure subject of picture (nose, lesion, toe, etc.) is in the center of the camera field
- ☐ Ensure the larger part of surface is in focus, with larger field of depth.
- ☐ Find a minimum focal length for the camera; do not get inside that focal length.
- ☐ Zoom in until subject is slightly out of focus then slowly pan out just until image is back in focus.

Be sure to not cast a shadow onto subject

☐ <u>Composition</u>

- ☐ Always need to be perpendicular to the surface of the lesion or rash.
- ☐ If there is texture to the lesion or rash, use lighting as your friend. Use a gooseneck lamp to create shadow or use natural lighting, patient positioning, while taking picture from the side.
- ☐ Hairy surfaces can difficult to focus on.
- ☐ Take as many pictures as you need, then delete the pictures that are not clear and in focus.

☐ When presenting dermatology patients, special consideration should be given to

the type of exam needed.

- Acne patients: Dermatologist needs images of face, neck, chest, shoulders, back, and bilateral sides of the face (lift up bangs). If needed take an image with focusing on the nose. Neck images should be taken with the chin up and down and back of neck. Lateral aspects of neck if needed. Provider will need anterior, posterior, top and sides of shoulders.

- **Do not turn** handheld **camera off** after collection image(s). Place on TeleHealth cart on and ready for image sharing with physician.

- <u>To share image(s) with the Dermatologist:</u>
  - When the Dermatologist asks to view affected area, access HMDI 2 output by pressing the switch button on the HDMI box located under the television screen.
  - Verify that image is visualized.
  - Allow physician to direct the pace at which the next image is shown
  - Narrate each image when it is shown (left index finger, right lower extremity, etc.)
  - If the physician would like a different visual of the object, exit the photographs and use the handheld camera to present a live view rather than taking still images.

- <u>When finished sharing image(s)</u>
  - Return to HMDI 1 output by pressing the switch button on the HDMI box
  - Return camera to cart
  - After the exam is complete, delete the images

Additional Questions:

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Infectious Disease (ID) 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 TeleInfectious Disease visit and to outline equipment, procedures, and physical exam requirements for working with an infectious disease specialist via TeleHealth.

3. DEFINITIONS & EXPLANATIONS OF TERMS

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

3.2. **Contact Precautions:** precautions intended to prevent transmission of infectious agents, which are spread by direct or indirect contact with the patient or the patient's environment. Contact Precautions also apply where the presence of excessive wound drainage, fecal incontinence, or other discharges from the body suggest an increased potential for extensive environmental contamination and risk of transmission.

3.2.1. **Direct Contact Transmission:** occurs when microorganisms are transferred from one infected person to another person without a contaminated intermediate object or person

3.2.2. **Indirect Contact Transmission:** involves the transfer of an infectious agent through a contaminated intermediate object or person

3.3. **Droplet Precautions:** precautions intended to prevent transmission of pathogens spread through close respiratory or mucous membrane contact with respiratory secretions. Respiratory droplets are generated when an infected person coughs, sneezes, or talks

3.4. **Airborne Precautions:** precautions intended to prevent transmission of infectious agents that remain infectious over long distances when suspended in the air. Preventing the spread of pathogens that are transmitted by the airborne route requires the use of special air handling and ventilation systems (e.g., AIIRs, PAPRS, N95) to contain and then safely remove the infectious agent

3.5. Personal Protective Equipment (PPE): equipment worn to minimize exposure to serious workplace injuries and illnesses. PPE may include items such as gloves, safety glasses and shoes, earplugs or muffs, hard hats, respirators, or coveralls, vests and full body suits

4. PROCEDURE BODY

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

4.1. Infectious Disease Referral Process:

- In order to schedule a TeleInfectious Disease consult, follow the SIU HealthCare Appointment Process.

4.2. Pre-Consult Preparation

- BE AWARE OF PATIENT'S PAST MEDICAL HISTORY
  - Specifically know:
    - **Diagnoses**: This is critical to properly protecting not only the Telepresenter but the patient and the public
    - **HIV/AIDS Status**: HIV patients are immunocompromised. Individuals with HIV/AIDS are at a higher risk for influenza-related complications. Healthcare workers should follow universal precautions.
    - **Organ Transplant History**: Transplant patients can be at a higher risk for infections due to immunosuppressant drugs. These drugs are used to help prevent the immune system from rejecting the organ; however, this also weakens their response to fight infections.
    - **Cancer/Chemotherapy**: Patients receiving chemotherapy are at a higher risk for infections due to decreased WBC levels. Chemotherapy attacks rapidly growing cells which includes cells in blood and bone marrow. When a patient becomes leukopenic, neutropenic or pancytopenic their body is more susceptible to infections.
    - **Corticosteroids**: Patients on high doses of corticosteroids are at a higher risk for infections due to the immunosuppressive effects of these drugs. Corticosteroids are typically used to reduce inflammation (an immune system response) and treat certain autoimmune disorders. When a patient's immune system is suppressed, they are more susceptible to infections.
    - **Antibiotic Use**: It is important that the patient take antibiotics how they are prescribed. Misuse or overuse of antibiotics can lead to harmful conditions and create things such as methicillin-resistant staphylococcus aureus (MRSA) or contribute to a patient's development of clostridium difficile (C.diff). A patient can also develop C.diff when taking antibiotics properly. The antibiotic kills both good and bad bacteria creating a breeding ground for C. diff to flourish. Both of these are easily spread and highly contagious when precautions are not properly followed.
    - **Recent Travel**: Some infectious diseases, such as hepatitis, are prevalent in certain geographical areas.

☐ 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

4.3. Patient Preparation

*****It is important for the telepresenter to know patient diagnoses or possible diagnoses and the proper precautions for each*****

☐ 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 **(particularly, note any recent history of fevers or hypothermia AND relay to clinician)**, blood pressure, pulse, respirations, and height and weight. Enter results in the EHR.

☐ Complete the SIU Infectious Disease 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 (Adult:(217)545-9125, Pediatrics (217)545-5018)**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.

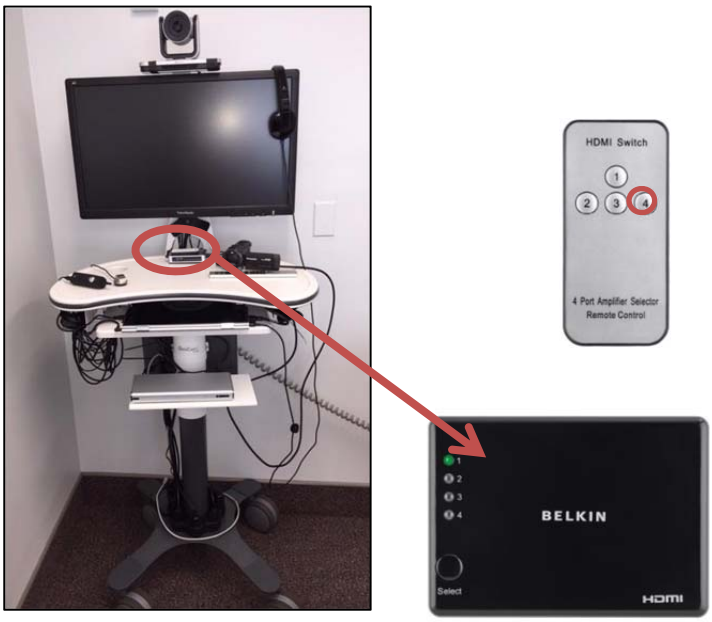
4.4. Assisting Provider with Physical Exam

- 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

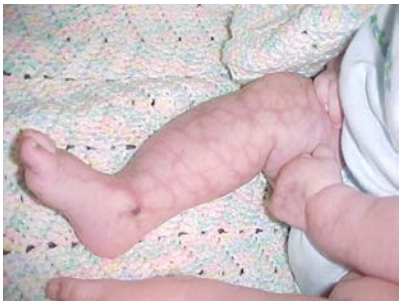


- Press the camera/play button on the camera

- 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.

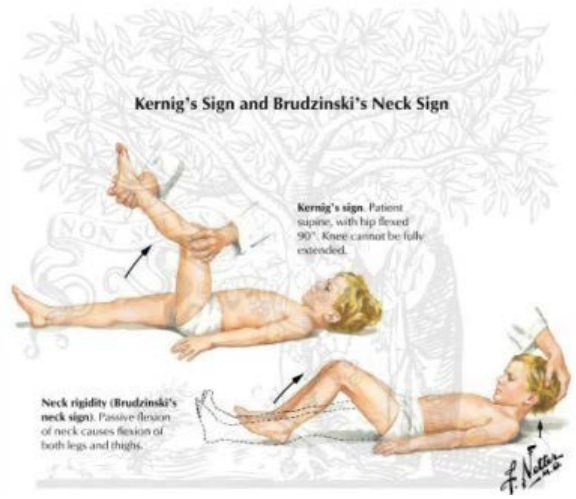
4.4.1. Medical History

- Be prepared to:
  - Complete skin examination, including areas covered by casts or other devices
    - Look for characteristic rashes that may provide a clue for a diagnosis (e.g., purpura fulminans in meningococcemia). Livedo reticularis is an early sign of inadequate circulation and may suggest sepsis. The presence of palpable subcutaneous gas suggests soft tissue infection



  - Examination of all implanted port sites for erythema, tenderness, and fluctuance
    - Implanted port-related blood stream infections should be considered an important source for the development of sepsis in patients with intravenous catheters.
  - Head and neck exam
    - Look for possible causes of sepsis, including sinusitis, otitis, and meningitis

- Early signs of meningitis include fever, headache, stiff neck, positive brudzinski (when supine, hips and knees will flex when neck is flexed with chin to chest) sign or kerning's sign (when supine, leg is unable to straighten when hip is flexed due to stiffness of hamstrings)



- Cardiac exam for murmur or rub
  - This may suggest endocarditis or pericarditis, respectively
- Lung exam for focal or diffuse findings
- Abdominal exam for tenderness, absent or abnormal bowel sounds
  - Careful abdominal exam is important to evaluate for a possible intra- abdominal source.
- Neurologic exam for altered mental status
  - Indicative of systemic inflammatory response and in the presence of documented or suspected infection suggests the presence of sepsis. Alternatively may be a sign of meningitis or encephalitis

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:

Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

American College of Physicians. 2006 Internal Medicine Essentials for Students Philadelphia, PA 19106-1572
https://www.acponline.org/acp_press/essentials/cdim_ch50_wed02.pdf

5.2. Additional Questions:

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Pediatrics 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 TelePediatric visit and to outline equipment, procedures, and physical exam requirements for working with a Pediatrician 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 Pediatric Services or any provider who may need a component of pediatric physical exam shall be proficient and appropriately trained in providing pediatric exam data via TeleHealth technologies.

4.1. Pediatric Referral Process:

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

4.2. Pre-Consult Preparation

☐ ****REMEMBER – CHILDREN ARE <u>NOT</u> JUST SMALL ADULTS****

☐ 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

4.3. Patient Preparation

☐**BE SURE TO INCLUDE AND SHOW INTEREST AND CONCERN **FOR PATIENT'S FAMILY AS WELL THE PATIENT****

☐**ALWAYS** be honest with patient about procedures (a nurse will lose credibility if he or she is dishonest with the patient)

☐During the interview and exam, remember there are many stages of development and these should impact the nature of the appointment (trust, autonomy, etc.)

Table 33-1 Developmental Age Groups

Developmental Stage	Age Group	Characteristics
Infancy	Birth to 12 months	Includes infants or babies up to 1 year of age, all of whom require a high level of care in daily activities.
Toddlerhood	1-2 years	Characterized by increased motor ability and independent behavior.
Preschool	3-5 years	The preschooler refines gross and fine motor ability and language skills and often participates in a preschool learning program.
School age	6-12 years	Begins with entry into a school system and is characterized by growing intellectual skills, physica ability, and independence.
Adolescence	13-18 years	Begins with entry into the teen years. Mature cognitive thought, formation of identity, and influence of peers are important characteristics of adolescence.

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

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

- For newborn through 24 months, weight obtained should be a naked weight.

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

☐If the patient and/or parent of 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

☐If needed, allow patient to sit on parents lap as much as possible performing tasks in order from least to most distressing (ie: ear and throat)

☐Distraction can be a great tool (books, bubbles, etc.)

☐Complete vital signs. This should include: temperature, blood pressure, pulse, respirations, height and weight and head circumference in children through 36 months(in centimeters) . Vital signs will vary depending on age of patient. Enter results in the EHR

Age Group	Resp	Heart Rate	SBP	Weight (kg)	Weight (lb)
Newborn	30 - 60	100 - 180	50 - 70	2 - 3	4.5 - 7
Infant 1-12 months	20 - 50	80 - 160	70 - 100	4 - 10	9 - 22
Toddler 1-3 yrs.	20 - 35	70 - 150	80 - 110	10 - 14	22 - 31
Preschooler 3-5 yrs.	20 - 30	60 - 120	80 - 110	14 - 18	31 - 40
School Age 6-12 yrs.	15 - 30	60 - 110	80 - 120	20 - 42	41 - 92
Adolescent 13+ yrs.	12 - 20	55 - 110	110 - 120	>50	>110

- **Chief Complaint/History of Present Illness** This should be the primary or main reason for the visit. The information should be listed chronologically and should list the initial symptom and then the subsequent symptoms

- For new patients, gather a **comprehensive health history**. This should include:

  - **Perinatal and Neonatal Information:** More emphasis will be placed on this information especially when it pertains to an infant patient. The information in this section might include birth date, hospital, city, weight, and length. The type of delivery, for example, spontaneous and the type of presentation; vertex or breech. Apgar scores, age of mother, length of gestation, exposures to infectious diseases, and medications, drugs, or alcohol including tobacco used during pregnancy should be recorded if pertinent to the case. Information regarding the newborn, might include hypoglycemia, cyanosis, pallor, seizures, jaundice, skin lesions, muscle skeletal deformities, respiratory distress or feeding problems.

  - **Previous Illnesses:** Age, severity, complications, and sequela.
    - ☐ Serious childhood illnesses
    - ☐ Surgical procedures, approximate dates, and complications
    - ☐ Injuries and fractures
    - ☐ Hospitalizations

  - **Nutrition:** Questions should be appropriate for the child's age

(breast or bottle fed, if formula is used which type, vitamin supplementation, appetite, typical diet, etc.).

- **Developmental History:** Record information regarding a child's current developmental status (gross motor, fine motor, social and language skills). When children are of school age also include information regarding academics and physical activities such as sports

- **Psychosocial:** Family composition, members living in the household, home atmosphere (emotional stress, abuse), financial concerns of the household, nature of dwelling, city or well water, possible toxin exposures (lead in older homes, cigarette smoke), animals in the home

- **Habits and Personality:** Sleeping pattern, Issues with regard to behavior (temper tantrums, aggressive behavior, bed wetting, etc.), substance abuse

- **Immunization:** Indicate sources of information, dates immunizations given, and which type of immunization was provided. During cold and flu season (September through March) be sure to include whether patient has received the flu vaccine

- **Medications and Allergies:** Verify medications (include dose, frequency, and indication), update if necessary. Also verify allergies (include reaction), update if necessary

- **Family/Genetic:** Record all known significant diseases in first degree relatives (parents, grandparents, aunts, uncles and siblings). Record all deaths in these first degree relatives. Things that should be included in this would be diabetes, cancer, epilepsy, allergies, hereditary blood disorders, early coronary artery disease, hyperlipidemia, mental retardation, dystrophies, congenital anomalies, degenerative diseases, cystic fibrosis, and celiac disease
- **Review of systems:** Review systems and include positive answers to questions.
    - HEENT (frequent ear or sinus infections, vision or hearing problems, lazy eye, etc.)
    - Respiratory (asthma, recurrent pneumonia, etc.)
    - Cardiac (murmur, HTN, PFO, etc.)
    - GI (frequency, hx of diarrhea, constipation IBS, etc.)
    - GU (nocturia, polyuria, infections, age when potty training, etc.)
    - Neuromuscular (hx of seizures, dizziness, fainting, etc.)
    - Muscular/Skeletal (weakness, gait, broken bones, etc.)
    - Hematologic (easily bruises, anemia, etc.)
    - Recent infectious disease contacts (contact with TB, persons who have traveled out of the country, etc.)

- Growth (general growth pattern)
- Reproductive (**females:** onset of menses, last menses (include duration, frequency), discomfort, discharge)(**males:** swelling or pain in testicles, pain or discharge)(**both:** sexual activity, use of contraception)

☐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

☐If applicable, 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

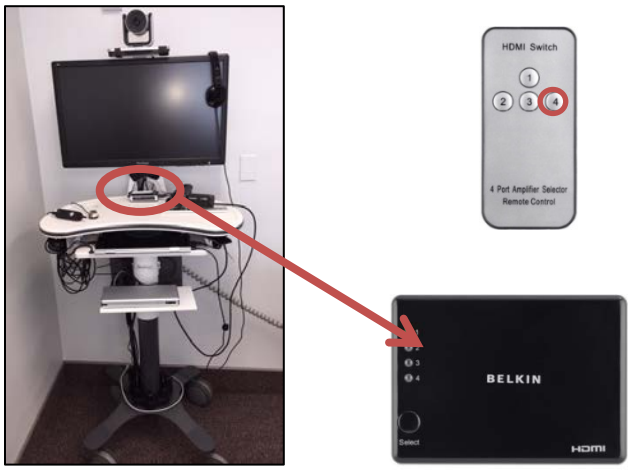
☐Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

☐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 Pediatrician 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. Physical Assessment (for further detail, refer to pulmonary, dermatology, and otolaryngology procedures

General Appearance: Size appropriate for age, respiratory distress or pain, and hydration and general nutrition status.

Head: Normal or abnormal facies and normal or abnormal cephaly. Fontanelle (size if open).

Eyes: Include all positive findings on eye examination and include proptosis, sclera, conjunctivae, amblyopia, strabismus, and photophobia.

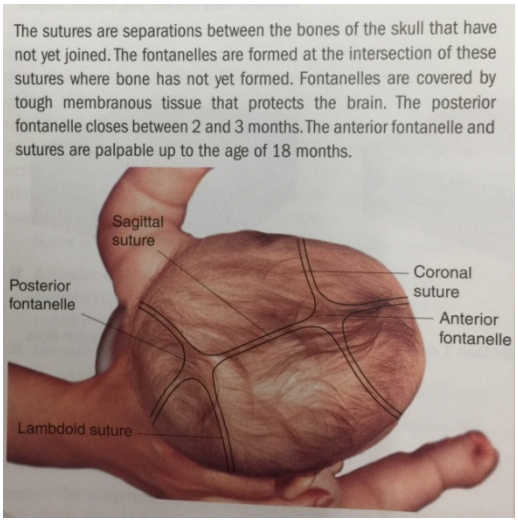
Ears: Hearing, discharge, tympanic membrane appearance.

Nose: Air movement, mucosa, septum, turbinate appearance, teeth-number and caries, gum – color and hypertrophy, epiglottis – appearance, tonsils – size and appearance.

Neck: Flexibility, masses. Thyroid (size).

Lymph node: If abnormal is size or texture record location, consistency, tenderness, size in centimeters.

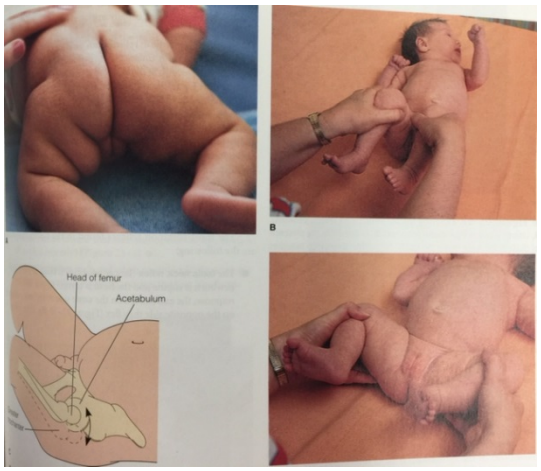
Spine: Scoliosis, mobility, tenderness.



Thorax: Appearance and contour, respiratory rate and effort, regularity of breathing, symmetrical chest movement, character of respirations such as retractions.

Cardiovascular:

- ☐ Inspection, precordial bulge, apical heave, auscultation, rhythm, character and quality of sounds.
- ☐ Palpation: PMI, thrills, heaves.
- ☐ Auscultation: quality and intensity of heart sounds, murmurs, for example, timing, duration, intensity, location, and radiation
- ☐ Pulses: radial and femoral pulses, rate and rhythm.
- ☐ Capillary refill



Abdomen:

- ☐ Inspection, contour, umbilicus, distention, veins, hernia.
- ☐ Percussion: fluid wave, shifting dullness, tympany, liver size (is liver palpable, it can be indicative of underlying cardiac issue) spleen size, CVA tenderness, abnormal masses.
- ☐ Palpation: tenderness, rebound, guarding, masses,and liver (if palpable, it can be indicative of underlying cardiac issue).

Genitalia:

- ☐ Male: circumcised, testes – appearance and size, hydrocele – presence hernia.
- ☐ Female: external genitalia, appearance of vulva, clitoris, hymen.

Breasts: development stage

Skin: texture, color, turgor, temperature, moisture, cyanosis, lesions, scars, ecchymosis, petechiae, hemangiomata, Mongolian spots, nevi

Extremities: Tone, color, warmth, clubbing, cyanosis, mobility, Ortolani and Barlow maneuvers in newborns and infants (pictured to the right), deformities, joint swelling or tenderness

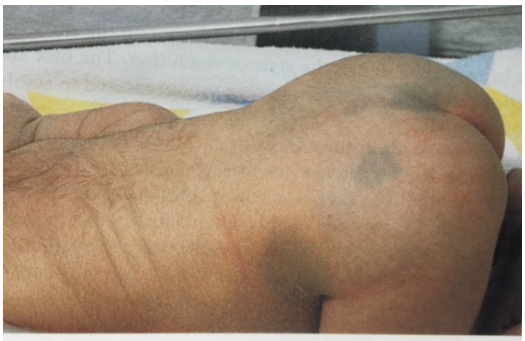


Figure 25–22 Mongolian spots.

Neurologic: (see Neurology sequence)

- ☐ Mental status: affect, level of consciousness, speech.
- ☐ Motor: gait, stances, muscle power, tone, tics, ataxia.
- ☐ Cranial nerves: testing 1-12
- ☐ Deep tendon reflexes: 2+ is average when recording.
  - Record if Babinski present.
  - Infants, for example grasp, suck, moro, rooting, stepping, placing.
- ☐ Abnormal sensory findings.
- ☐ Meningeal signs

Rectal: Fissures, hemorrhoids, prolapse, sphincter tone, stool in ampulla, abnormal masses.

4.6. 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 pediatrician 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

4.7. 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:

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:

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Pediatric Neurology

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 TelePediatric Neurology visit and to outline equipment, procedures, and physical exam requirements for working with a Pediatrician 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 pediatric patients to Neurology Services or any provider who may need a component of a pediatric neurological history or physical exam shall be proficient and appropriately trained and proficient in providing a pediatric neurological exam via TeleHealth technologies.

4.1. Pediatric Neurology Referral Process

☐ In order to schedule a TeleNeurology consult, follow the SIU HealthCare Appointment Referral Procedure.

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: otoscope, hand held camera, digital stethoscope and codec. Prepare standard instruments including: tuning fork, reflex hammer, tape measure (with cm measurement). In addition to the standard instruments and technology the following may be useful: a tennis ball; a few small toys, including a toy car that can be used to assess fine motor coordination; a bell; and some object that attracts the child's attention (e.g., a pinwheel).

☐ 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

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

☐If the patient and/or parent of 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

☐Child's height, weight (with shoes off), blood pressure, and head circumference on all patients 3 years or younger. Head circumference is measured from most prominent point over forehead and posterior occiput. Enter results in the EHR

☐Preform orthostatic blood pressure on patients who are being evaluated for syncope or dizziness.

☐Have patient lay supine, with legs flat for 5 minutes, check blood pressure and pulse; have patient stand, immediately check blood pressure and pulse; have patient continue to stand for one minute and recheck blood pressure and pulse.

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

☐Note the general appearance of the child, in particular the facial configuration and the presence of any dysmorphic features. Skin lesions such as hyperpigmentation (cafe' au lait spots), angiomas, or areas of depigmentation are clues to the presence of phakomatoses. The condition of the teeth provides information about prenatal defects. Note the location of the hair whorl and the appearance of the palmar creases. Abnormalities of whorl patterns can indicate the presence of cerebral malformations. Assess the scalp hair, eyebrows, and nails. Compare the size of the thumb nails and their convexity might disclose a growth disturbance, a frequent accompaniment to a hemiparesis. Presence of an unusual body odor may offer a clue to a metabolic disorder. Record any pertinent information in provider worksheet.

4.3. Assisting Provider with Physical Exam on children 2 years and older

- Because 75% of cortical development is complete by 2 years of age, the neurological exam of a child older than 2 years is similar to that of an adult. The THNC may utilize the hand held camera or the room camera during this portion of the physical exam. When utilizing the room camera, frame the patient and the caregiver.
  - Gait: Instruct the child / adolescent to walk normally from one end of room to other. Provider may request the patient walk on tiptoes away from the THNC and walk on heels back toward the THNC. Tandom walking, instruct the child / adolescent to walk as if they were on a tightrope, with the heel of one foot touching the toes of the other foot. Run, may have child retrieve a ball.
  - Balance / Coordination: Instruct the child to stand with feet together, arms extended straight out in front, with eyes closed. Provider will be assessing for weakness, swaying and / or rotation of arms.
  - Cranial Nerves: To allow the provider to assess the oculomotor nerve, the THNC will instruct the child / adolescent to follow an object or the THNC finger as they move it in all directions. If the patient has difficulty looking up, down or toward the nose there may by oculomotor nerve involvement.
  - Motor / Tone: Muscle tone is examined by manipulating the major joints and determining the degree of resistance. The THNC will hold child / adolescent extremity with two joints in between THNC hands, evaluate fluid mobility (smoothness of the motion).
  - Motor / Strength: Provider may instruct patient to shrug shoulders; bend upper arms with elbows out (like wings); make a muscle with bicep; push THNC away with arms, testing the strength of the triceps; wrist flexion / extension against resistance; finger flexion / extension against resistance.
  - Tendon Reflexes: The THNC will elicit by tapping briskly with a heavy, rubber reflex hammer (not plastic) 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. Refer to attachment.
  - Sensation: The THNC will test for perception of sensation (temperature, touch, and vibration) on corresponding sides of the body with a tuning fork by light touch / cold sensation on each extremity; trunk front and back; vibration on distal extremities.
  - Hearing: Rap the tuning fork against palm and hold about 2 inches from child / adolescent's ear and ask the patient, "Can you hear the buzzing?" Make sure the provider can see the patient's response.
  - Ataxia: Provider will instruct the child / adolescent to touch their finger to their nose and then touch the same finger to THNC finger. THNC will have finger positioned to allow patient's upper extremity to be fully outstretched, with elbow fully extended. Child / adolescent toe to THNC finger, with finger held inches above straight leg.

4.4. Assisting Provider with Physical Exam on children 2 years and younger

- In younger or cognitively challenged children the neurologic examine is a "catch as you can" procedure, considerable amount of information revealed by the child's play activities, including the child's dominant handedness and the

presence of cerebellar deficits, a hemiparesis, and possibly a visual field defect. Note the general appearance of the child, in particular the facial configuration and the presence of any dysmorphic features. Skin lesions such as hyperpigmentation (cafe' au lait spots), angiomas, or areas of depigmentation are clues to the presence of phakomatoses. The condition of the teeth provides information about prenatal defects. Note the location of the hair whorl and the appearance of the palmar creases. Abnormalities of whorl patterns can indicate the presence of cerebral malformations.

☐**Posture (Resting):** With the hand held or room camera, allow the provider to inspect the infant lying undressed and undisturbed 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.

☐**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 semi-reclining position, the THNC 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 THNC 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.

☐**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.

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 pediatrician 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 LS, Szilagvi PG. *Bates' Pocket Guide to Physical Examination and History Taking*. Ninth Edition. Philadelphia, PA: Lippincott Williams & Wilkins; 2007.

5.2. Additional Questions:

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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

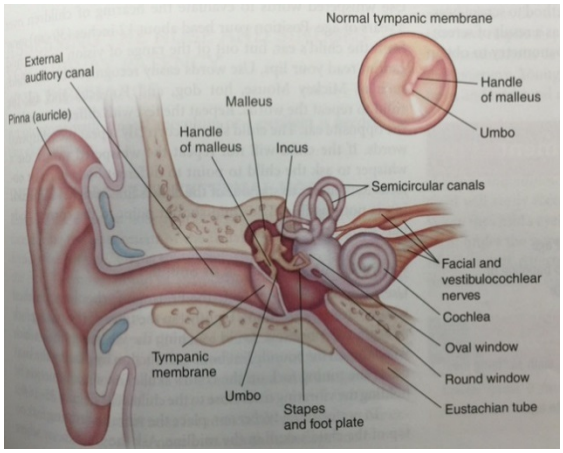
3.3 **Vertigo**: a sensation that a person or objects around the person are moving or spinning; usually stimulated by movement of the head

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

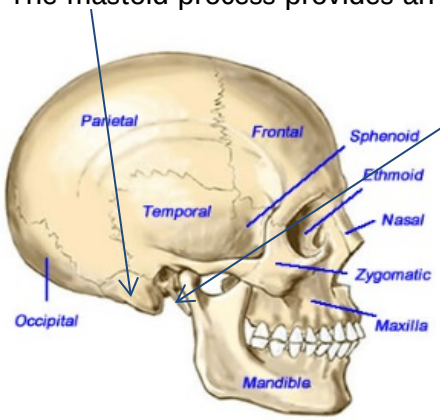
3.5 **Epistaxis**: nose bleed

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

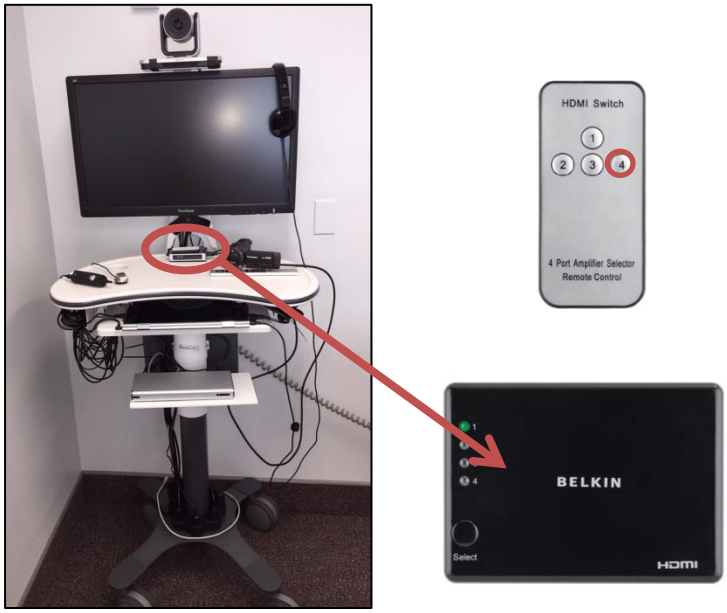
a. Be prepared to assist the provider with the physical exam. . The provider will direct the nurse in the room.

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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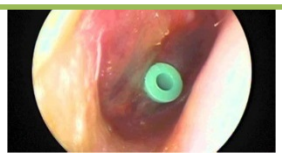
4.2 Physical Exam

4.2.1. Ears

Inspection

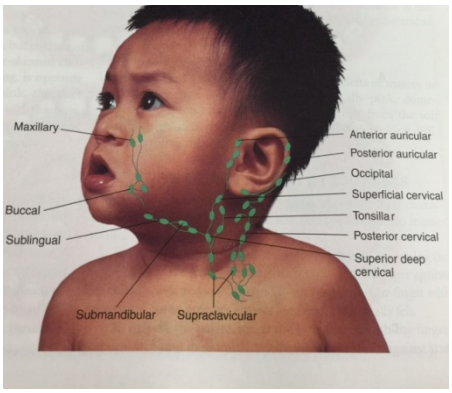
- Observe the relationship of the ears to the rest of the face.
- Pinna: shape and position to the rest of the face.
  - If the external ear is displaced outward and anteriorly, consideration may be given to a diagnosis of mastoiditis, external otitis or cellulitis
- Canal: discharge, swelling, redness, 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



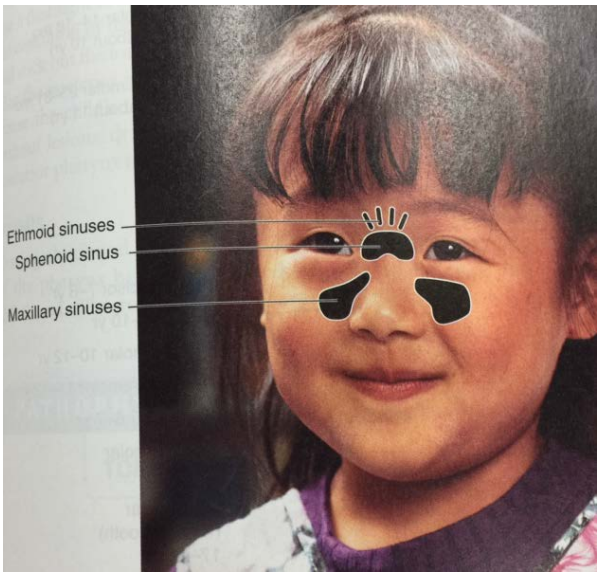
- Tenderness over tragus or on manipulation of the pinna
- Tenderness on tapping of mastoid process
- Size and tenderness of pre, post auricular and occipital nodes
  - Slide fingerpads gently over lymph node chains
  - Firm, clearly defined non-tender, moveable nodes up to 1cm are common in young children

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

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

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