

Telehealth Nephrology Presenting

1. SCOPE

- 1.1. MCHS Telepresenters
- 1.2. Facilities and departments included in the scope listed above are further defined in the [Scope Definition Resource Guide](#) if not specifically outlined above.

2. DEFINITIONS & EXPLANATIONS OF TERMS

2.1. Abbreviations

- LPN – Licensed Practical Nurse
- MA – Medical Assistant
- MCHS – Marshfield Clinic Health System
- RN – Registered Nurse

2.2. Definitions

- Aortic valve: is at the second right intercostal space at the sternal border
- Codec: refers to video conferencing system.
- Edema assessment: 1+= slight pitting; no visible change in the shape of the leg (skin indents 2mm), 2+= somewhat deeper pitting; no marked change in the shape of the leg (skin indents 4mm), 3+= pitting is deep; leg is full and swollen (skin indents 6mm), 4+= pitting is very deep; leg is very swollen (skin indents 8mm +)
- Epigastric area: is at the tip of the sternum.
- Friction Rub: Occurs outside of the respiratory tree and has a dry, crackly, grating, low-pitched sound that is heard on inspiration and expiration. If the friction rub is heard over the heart or lungs, it is caused by inflamed, toughened surfaces that rub together. Friction rub over the pericardium suggest pericarditis, whereas, a friction rub over the lungs may indicate pleurisy.
- Jugular Vein Distention (JVD): reflects right arterial pressure, giving providers' important clinical indicator of cardiac function and right heart hemodynamics. JVD is evaluated best from the right internal jugular vein, because the right internal vein has a more direct anatomic channel into the right atrium.
- Orthostatic: refers to standing blood pressure.
- Point of Maximal Impulse (PMI): is at the apex; fifth left intercostal space at the midclavicular line.
- Postural blood pressure: refers to sitting and standing measurements.
- Pulmonic valve: is at the second left intercostal space at the sternal border.

- Rales: A crackle most often heard on inspiration and tends to be brief and non-continuous and is caused by the passage of air throughout the small airways in the lungs that have become sticky with fluid, mucous, or pus. If the rales are coarser and lower pitched, this may indicate the origin as higher in the respiratory tree.
- Rhonchi: Deeper, more pronounced rumbling during expiration and likely to be continuous and less discrete than rales. Rhonchi tend to clear with coughing, whereas, rales do not. Rhonchi are caused by the passage of air through a larger airway obstructed by thick secretions, new growth, or external pressure. The sibilant rhonchi arise from smaller bronchi; the sonorous arise from larger bronchi as in tracheobronchitis.
- Secondary aortic: is at the third left intercostal space at the sternal border.
- Telepresenter: is an RN, LPN or MA who is trained to use technology, such as digital stethoscope, otoscope, examination camera, etc, to facilitate comprehensive exams under provider guidance
- Tricuspid valve: is at the fifth left intercostal space at the sternal border.
- Wheeze: Is a continuous, high-pitched, musical and/or whistling and is heard throughout inspiration and expiration. If wheezing is heard bilaterally, it may be caused by bronchospasms of asthma or acute and chronic bronchitis.

PROCEDURE

3. PROCEDURE BODY

All clinical staff responsible for the presenting of patients to Nephrology Services or any provider who may need a component of a nephrology history and physical exam shall be proficient in providing a nephrology exam via Telehealth technologies and shall be appropriately trained and must work within scope of practice

3.1. Pre-Consult Preparation

a. See [Telehealth Core Presenting](#)

- Vital signs: Be sure to select the appropriate provider and the necessary package that coincides with the visit

- Blood pressure

Postural blood pressure (sitting and standing) should be taken two minutes apart without conversation if requested by provider

- Pulse

- Weight

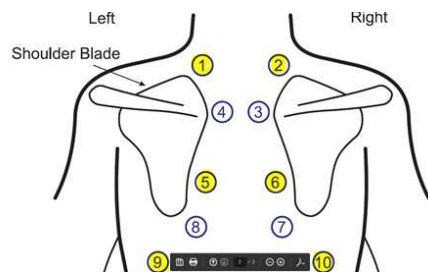
3.2. Pre-Assessment Physical Exam:

- a. Review changes in weight noting the direction and rate of change
- b. Assess skin and mucous membranes for moisture
- c. Assess for problems with urinary output
- d. Record all results in provider worksheet if abnormal

3.2. Provider Directed Physical Exam:

a. **Lung assessment:**

- Position patient so his or her posterior side is to the room camera
- Place limited pressure with the digital stethoscope at the six posterior lung fields for two complete breaths or until prompted by provider to switch landmarks



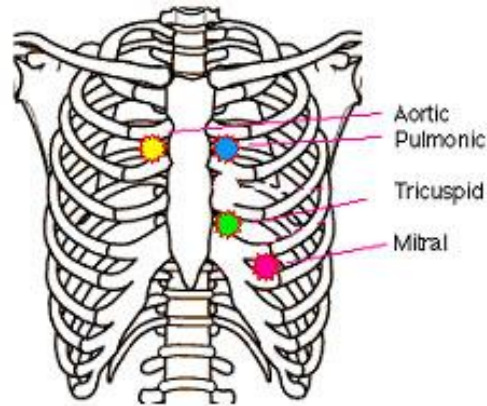
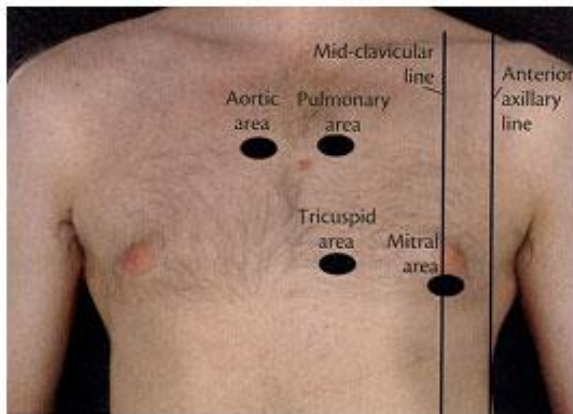
- Begin with upper lobes of lung, moving the diaphragm of the stethoscope in a ladder-like pattern, from one side to the other. This will

allow the provider to identify patterns of breath sounds and compare symmetric areas of the lungs

- Position patient with anterior side facing the room camera. Use the digital stethoscope to auscultate two anterior lung fields or until prompted by provider to switch landmarks

b. Heart Assessment:

- Position patient's anterior side to room camera and apply limited pressure to the digital stethoscope to auscultate in the four landmarks below.
 - Aortic valve
 - Pulmonic valve
 - Tricuspid valve
 - Mitral Valve/Point of Maximal Impulse (PMI)



- Watch the provider for cues to move to the next landmark.
- c. Edema:** With the hand held camera, be prepared to show the provider edema that has been noted in the pre-assessment physical exam.
- Look for swelling of the hands, feet, face, calves, and arms and note:
 - Is it unilateral or bilateral
 - How far up the leg does it go?
 - If present, press on the area with swelling (ankles, mid-calf, etc.) for 10 seconds and release
 - Severity of Edema. (1-4+) pitting
 - Use hand held video camera to present real time assessment of edema
 - Hold hand held video camera at 30 to 45 degree angle to show area with swelling and press on the area with swelling (ankles, mid-calf, etc.) for 10 seconds and release

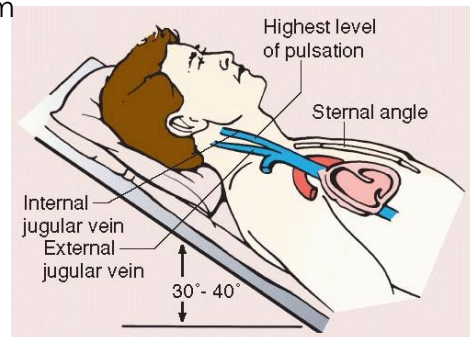
PROCEDURE



- Asses for weeping of fluid due to edema.
 - Patients may get so edematous that they will have a serous type drainage from little/almost pinhole openings in the legs

d. **JVD Assessment:** Display patient with room camera or hand held camera to ensure that the provider can visualize the jugular vein during the exam

- Request patient to lie supine with the head elevated 30-45 degrees. Hyperextension or flexion may stretch or kink the vein
- Apply moderately firm pressure with the palm of your hand over the patient's right upper abdominal quadrant for 30-60 seconds. If jugular venous pressure increases, the vein will appear more prominent



3.3. Post Physical Exam

a. See [Telehealth Core Presenting](#)

3.4. Post Considerations

a. See [Telehealth Core Presenting](#)

PROCEDURE

4. ADDITIONAL RESOURCES

- 4.1. References:
- Jarvis, C. Pocket Companion for Physical Examination & Health Assessment. 6th ed. St. Louis, MO: Elsevier Saunders; 2012.
- 4.2. Supporting documents available:
- [Telehealth Core Presenting](#)

5. DOCUMENT HISTORY

Version No.	Revision Description
1.0	Conversion from Policy Handbook to Document Control. Procedure #2895.1
2.0	Added Telepresenter definition and reviewed~1/15/18 Sharon Dvoran
3.0	Removed Marshfield Clinic Logo, Updated Quick Part in Header, Reformat of Section 2. Updates Per Julianne Elsen.

6. DOCUMENT PROPERTIES

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