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UG-STAT

Ultrasound-Guidance Skills and Tasks Assessment Tool
for pleural diagnosis, thoracentesis and chest tube
insertion*

*Clinical research/validated assessment tool with instructions, quiz and quiz answers applicable to an international audience of health care providers. Designed and developed by Dr. Matthew Salamonsen and team, Brisbane, Australia See: Salamonsen M, McGrath D, Steiler G, et al. Chest 2013

Ultrasound-Guided Thoracentesis Skills and Tasks Assessment Tool (UGSTAT)

Name: _____ Position _____

Assessor Name: _____ Date _____

Prior thoracic US experience: Educational Course Yes No # US performed to date: ____

Instructions

Ensure all equipment is available including US machine, probes and US gel.

Please **read instructions in red** below. **You may repeat instructions and assist with location of the US controls when asked, but Do NOT give any extra prompting or ask additional questions.** If a participant **requires prompting, score zero** for that assessment point.

Educational Item	Score
1. "Please tell me what the following controls on the US machine do: - name each control" (1 point each, target 10 points) <input type="checkbox"/> On/Off <input type="checkbox"/> Depth <input type="checkbox"/> Focus <input type="checkbox"/> Time-gain-Compensation (TGC) <input type="checkbox"/> Freeze <input type="checkbox"/> Overall gain <input type="checkbox"/> Harmonics <input type="checkbox"/> Dynamic range <input type="checkbox"/> Frequency control <input type="checkbox"/> Image capture	Score ____/10
2. "Tell me the name of each of these probes" point to linear and convex probe. (3 points each, target 6 points) <input type="checkbox"/> Linear <input type="checkbox"/> Curved	Score ____/6
3. "What would you do to prepare the US machine for the exam? What probe would you use? How would you position the patient?" (3 points each, target 12 points) <input type="checkbox"/> Patient data <input type="checkbox"/> Presettings <input type="checkbox"/> Probe <input type="checkbox"/> Patient position	Score ____/12
4. "Now start the US exam. You may ask for the location of specific US controls. Describe what you are doing." Uses correct probe grip, orientation and handling. (3 points each, target 6 points) <input type="checkbox"/> Grip <input type="checkbox"/> Orientation and handling	Score ____/6
5. Able to optimize sonographic image. You can assist if required but score zero if assistance is given. (3 points each, target 9 points) <input type="checkbox"/> Depth <input type="checkbox"/> Focus <input type="checkbox"/> Time-Gain-Compensation	Score ____/9
6. "Please show me the liver/spleen (dependent on side), lung, and superior margin of rib" (4 points each, target 12 points). <input type="checkbox"/> Liver or Spleen inferior to effusion <input type="checkbox"/> Lung superior to effusion <input type="checkbox"/> Rib margin	Score ____/12
7. "Show me the area on the chest wall corresponding to the maximal depth of effusion" (target 4 points) <input type="checkbox"/> Identifies site on chest wall corresponding to maximal depth of effusion	Score ____/4
8. "Now measure the distance from skin to effusion and skin to a suitable needle depth" (target 3 points) <input type="checkbox"/> Accurately measures distance to effusion and suitable needle depth	Score ____/3
9. "Would you describe loculations as absent, minor or extensive? Please place your finger on the skin where you would mark to insert the needle" Check the mark to confirm it is at superior border of rib. (4/3/3 points each, target 10 points) <input type="checkbox"/> Correctly indicates absent loculations <input type="checkbox"/> ID correct site on skin for needle insertion <input type="checkbox"/> Site is at top of rib	Score ____/10
10. Ask candidate to complete UGSTAT Quiz questions sheets (1 point each, target 10 points) <input type="checkbox"/> Image 1 <input type="checkbox"/> Image 2 <input type="checkbox"/> Image 3 <input type="checkbox"/> Image 4 <input type="checkbox"/> Image 5 <input type="checkbox"/> Image 6 <input type="checkbox"/> Image 7 <input type="checkbox"/> Image 8 <input type="checkbox"/> Image 9 <input type="checkbox"/> Image 10	Score ____/10
11. Overall performance/fluidity of movement (Score 0 for unsatisfactory, 9 for satisfactory, 18 for excellent - target 18 points) <input type="checkbox"/> Unsatisfactory <input type="checkbox"/> Satisfactory <input type="checkbox"/> Excellent	Score ____/18

FINAL GRADE

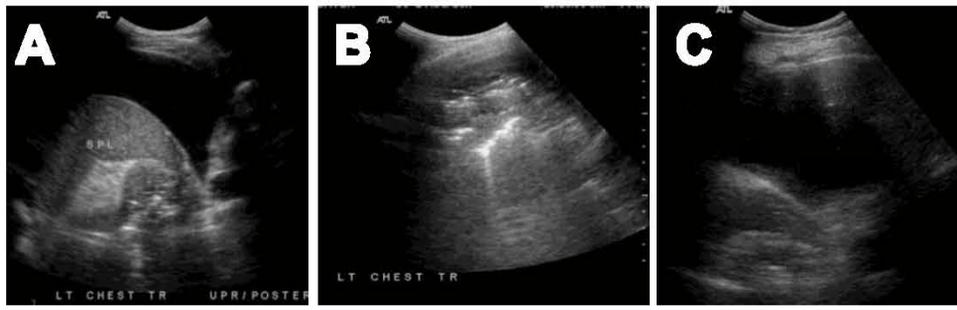
PASS

NEEDS IMPROVEMENT

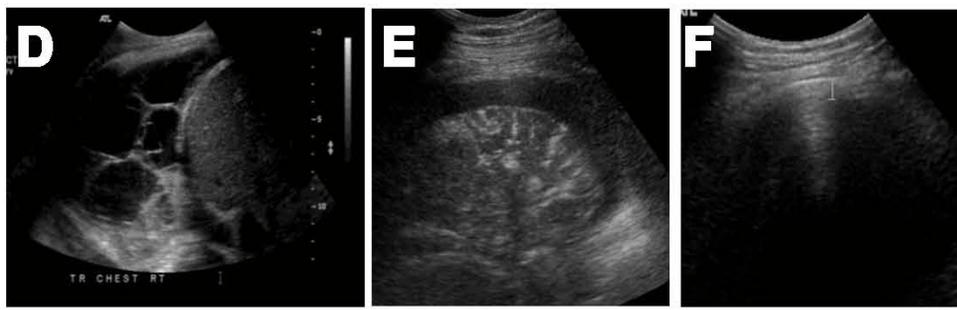
SCORE _____/100

UGSTAT Quiz Questions

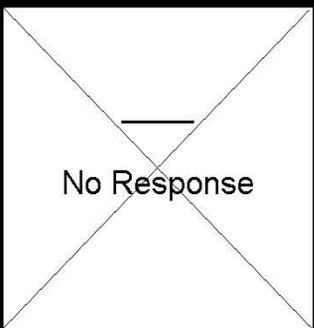
Name _____



Only FIVE of these photos have corresponding image descriptions



UGSTAT Question 10: Match the sonographic photo (A-F) to the corresponding 5 descriptions (Only one response per description)

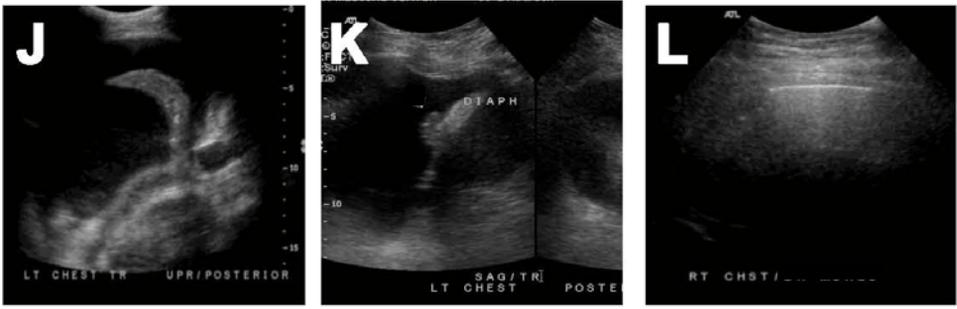
 <p>No Response</p>	<p>_____</p> <p>1. Complex effusion with hyperechogenic shadows</p>	<p>_____</p> <p>2. Multiloculated (complex septated) effusion</p>
<p>_____</p> <p>3. Ribs with posterior acoustic shadowing</p>	<p>_____</p> <p>4. Anechoic left-sided effusion</p>	<p>_____</p> <p>5. Lung consolidation (hepatization)</p>

UGSTAT Quiz Questions

Name _____

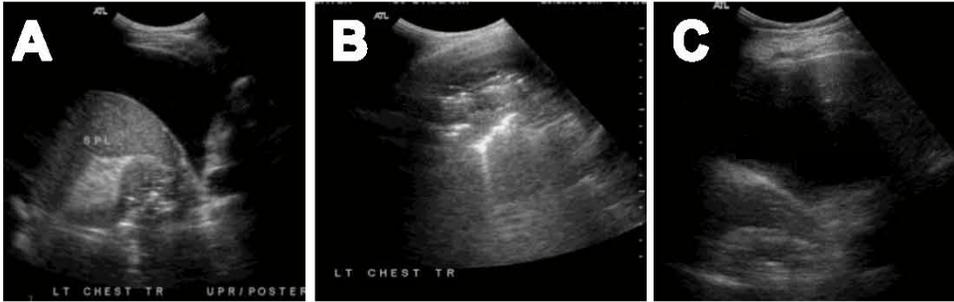


Only FIVE of these photos have corresponding image descriptions

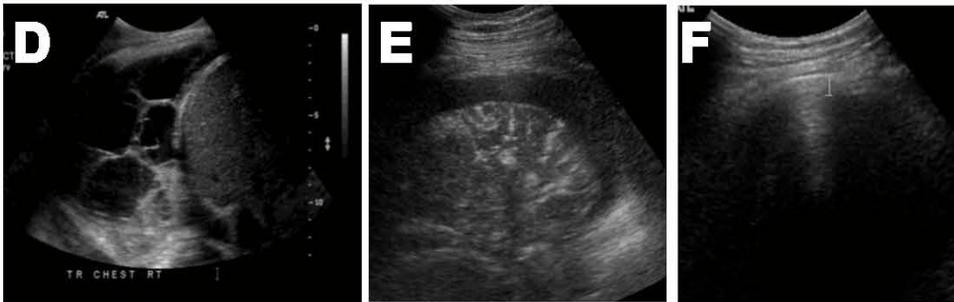


UGSTAT Question 10: Match the sonographic photo (A-F) to the corresponding 5 descriptions (Only one response per description)

<p>No Response</p>	<p>_____</p> <p>6. Floating lung sign</p>	<p>_____</p> <p>7. Complex non septated effusion</p>
<p>_____</p> <p>8. Diaphragmatic nodules</p>	<p>_____</p> <p>9. Effusion in severely obese person</p>	<p>_____</p> <p>10. Large anechoic effusion</p>



Only FIVE of these photos have corresponding image descriptions

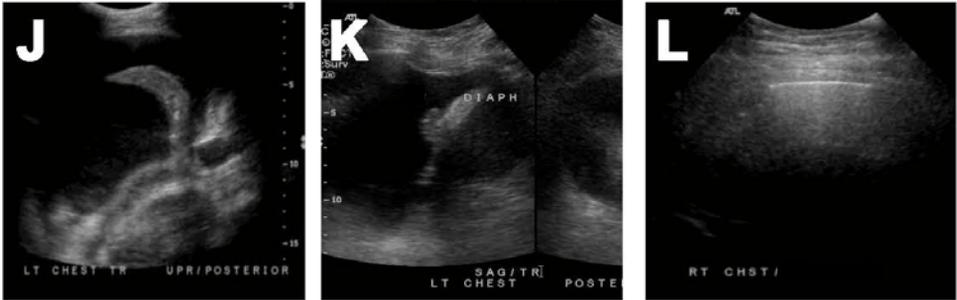


UGSTAT Question 10: Match the sonographic photo (A-F) to the corresponding 5 descriptions (Only one response per description)

<p style="text-align: center;">_____</p> <p style="text-align: center;">No Response</p>	<p style="text-align: center;"><u>B</u></p> <p>1. Complex effusion with hyperechogenic shadows</p>	<p style="text-align: center;"><u>D</u></p> <p>2. Multiloculated (complex septated) effusion</p>
<p style="text-align: center;"><u>F</u></p> <p>3. Ribs with posterior acoustic shadowing</p>	<p style="text-align: center;"><u>A</u></p> <p>4. Anechoic left-sided effusion</p>	<p style="text-align: center;"><u>E</u></p> <p>5. Lung consolidation (hepatization)</p>



Only FIVE of these photos have corresponding image descriptions



UGSTAT Question 10: Match the sonographic photo (A-F) to the corresponding 5 descriptions (Only one response per description)

<p style="text-align: center;"><u> </u> No Response</p>	<p style="text-align: center;"><u>J</u> 6. Floating lung sign</p>	<p style="text-align: center;"><u>H</u> 7. Complex non septated effusion</p>
<p style="text-align: center;"><u>K</u> 8. Diaphragmatic nodules</p>	<p style="text-align: center;"><u>I</u> 9. Effusion in severely obese person</p>	<p style="text-align: center;"><u>G</u> 10. Large anechoic effusion</p>



Bronchoscopy International is a transnational organization whose members are devoted to bronchoscopy education. Our vision is that patients need not suffer the burden of medical procedure-related training. Our mission is to help physicians become skilled practitioners, and to make bronchoscopy more readily available to patients so that we might defeat the effects of lung disease around the world.

Bronchoscopy International partners with national, regional, and international medical societies to train physicians and their health care teams, donate equipment, and implement learning programs that support the democratization of knowledge. The organization has developed a six part curriculum to enhance cognitive, affective and experiential knowledge and technical skill. With implementation of the Bronchoscopy Education Project, we also offer a uniform curriculum to training centers and educators around the world. The project is officially endorsed by numerous professional medical associations. Learning resources include books and training manuals, instructional videos, patient-centered problem-based exercises, simulation scenarios, and interactive on-site and on-line seminars. Faculty Development Programs are conducted to nurture a cadre of expert educators. To learn more about Bronchoscopy International and our global activities, please go to www.Bronchoscopy.org.