

**SURGERY VIGNETTE**  
**Appendicitis Interactive Simulation**

Cover Page		
Q1: Facility ID	Q2: Facility Name	Q4b: Time simulation started (HH:MM)
Q3: Observer number	Q4a: Today's date (DD/MM/YYYY) __ / __ / __ __	__ : __ AM/PM
Q4c: Result <input type="checkbox"/> Interview done <input type="checkbox"/> Person in charge refused interview		
<input type="checkbox"/> Partially completed <input type="checkbox"/> Person in charge is out		

THIS TEST IS TO BE ADMINISTERED TO A HEALTH WORKER FROM SURGERY SERVICES. EACH FOLIO (SET OF PAPERS) CORRESPONDS TO ONE HEALTH WORKER ONLY. IF YOU ADMINISTER THIS TEST TO SEVERAL HEALTH WORKERS, YOU NEED A NEW FOLIO FOR EACH HEALTH WORKER. ALSO BE SURE TO RECORD THE STAFF ID NUMBER OF THE HEALTH WORKER ANSWERING THIS TEST, BY REFERRING TO THE STAFF ROSTER TO OBTAIN THE STAFF ID NUMBER.

CHECK THE STAFF ROSTER AND SEE IF THE HEALTH WORKER IS RECORDED AS HAVING GIVEN CONSENT FOR THE RESEARCH. IF NOT YOU MUST READ THE FULL CONSENT FORM AND OBTAIN HIS/HER SIGNATURE. IF YES, REMIND HIM/HER USING THE TEXT BELOW.

Q5a: Has the health worker previously signed a consent form? ☐ Yes → go to Q6a ☐ No → go to Q7a

Q6a: ASK HEALTH WORKER: I would like to ask you some questions about your knowledge of a specific medical case. Your answers will remain confidential, we will not share the result of this interview and it will not have any impact on your work or the assessment of your performance. Do I have your permission to administer this questionnaire?

☐ Yes → go to Q8a ☐ No, consent is not given → observation of this health worker must END; if available, approach another health worker for participation.

Q7a: READ FULL CONSENT SCRIPT TO HEALTH WORKER AND OBTAIN SIGNATURE. Did the health worker sign the form?

☐ Yes → go to Q8a ☐ No, consent is not given → observation of this health worker must END; if available, approach another health worker for participation.

Q8a Staff Roster ID number	Q9a Gender	Q10a: Health Worker Category Code (see below for codes)
	<input type="checkbox"/> Male <input type="checkbox"/> Female	

READ THE FOLLOWING TO THE HEALTH WORKER:

I will start asking you questions about your knowledge now. Please answer the following questions to the best of your knowledge. Most of the questions I will be asking you will require multiple responses from you. Please provide all responses that come to mind. I will probe sometimes to help you remember some more information. I may also ask you to demonstrate certain actions during the course of this interview. Finally, if you need me to repeat the question, just let me know.

Health Worker Category Codes				
1. MD-Obstetrician/Gynecologist	2. MD-Neonatologist	3. MD-Surgeon	4. MD- Family Physician	5. MD - Pediatrician
6. Physician's Assistant	7. Nurse midwife	8. Bachelor and Science of Nursing Nurse	9. Diploma Nurse	10. Nurse with Associate Degree
11. Licensed Practical Nurse	12. Certified midwife	13. Midwife	14. Nurse aide	96. Other, please specify:

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**Management of Apendicitis**

THE FOLLOWING QUESTIONS CORRESPOND TO A CLINICAL CASE SCENARIO THAT THE HEALTH WORKER COULD EXPECT TO OBSERVE IN THE HOSPITAL. READ THE CASE SCENARIOS AND QUESTIONS EXACTLY AS THEY ARE WRITTEN. **DO NOT READ THE OPTIONS OF ANSWERS.** FOR CERTAIN QUESTIONS, MULTIPLE ANSWERS ARE POSSIBLE; IN THIS CASE, CIRCLE ALL ANSWERS GIVEN BY THE HEALTH WORKER. AFTER THE HEALTH WORKER HAS FINISHED ANSWERING THE QUESTION, ASK "ANYTHING ELSE?" IF ADDITIONAL ANSWERS ARE GIVEN AT THAT TIME, MAKE DUE RECORD OF THEM ON THE SURVEY FORM. BE CAREFUL TO FOLLOW THE SKIPS AS THEY ARE MARKED. MAKE SURE THE HEALTH WORKER CANNOT SEE THE FORM YOU ARE FILLING.

**ATTENTION:** IN THE "INFORMATION" COLUMN, THERE IS INFORMATION ON THE CURRENT STATE OF THE PATIENT. THIS INFORMATION HAS TO BE PROVIDED, **IF AND ONLY IF** THE CLINICIAN SAYS HE WOULD ASK THE QUESTION OR PERFORM THE ACTION LISTED. IF THE CLINICIAN DOES NOT MENTION HE WILL ASK THE QUESTION OR PERFORM THE ACTION, THEN THE RESULT OF THAT QUESTION OR ACTION **SHOULD ABSOLUTELY NOT** BE SHARED WITH THE HEALTH WORKER. FOR EXAMPLE IN Q101, IF THE HEALTH WORKER SAYS S/HE WOULD ASK ABOUT THE MEDICAL HISTORY, THEN YOU HAVE TO ASK THEM "WHAT KIND OF HISTORY WOULD YOU ASK ABOUT?". IF THE HEALTH WORKER DOES NOT SAY HE WOULD ASK ABOUT THE MEDICAL HISTORY, THEN YOU MUST NOT ASK THEM WHAT KIND OF HISTORY THEY WOULD ASK ABOUT. STILL IN Q101, IF THE HEALTH WORKER SAYS S/HE WOULD ASK WHETHER SHE HAD ANY RECENT SURGERIES, THEN YOU HAVE TO TELL THEM THE PATIENT HAS HAD NO RECENT SURGERIES. IF THE HEALTH WORKER DOES NOT SAY HE WOULD ASK WHETHER THE PATIENT HAD RECENT SURGERIES, THEN YOU MUST NOT TELL THEM SHE HASN'T HAD ANY. MAKE SURE THE HEALTH WORKER CANNOT READ IT ON THE FORM EITHER.

DO NOT READ OPTIONS ALOUD. FOR EACH OPTION, NOTE WHETHER THE HEALTH WORKER MENTIONED THIS ACTION OR NOT.

RECORD TIME OF BEGINNING OF THE SIMULATION (HH:MM)      \_\_ \_\_ : \_\_ \_\_ AM/PM

**Scenario:** 19 year old female presents with abdominal pain of 8 hours duration.

Question	Yes	No	Information	Go to	Verify Present/ Not Present
<b>Q101: What do you do to assess this woman?</b>					
A. History taking	1	0	What kind of history would you ask about?		N/A
a. Do you have a chart?	1	0	No, this is the first time at this facility.		N/A
b. Have you had any recent surgeries, accidents or trauma?	1	0	No		N/A
c. Where is the pain?	1	0	It started near the belly button but has now moved to the right lower quadrant.		N/A
d. Are you hungry, have you eaten?	1	0	Not hungry.		N/A
e. Do you have constipation?	1	0	No.		N/A
f. Do you have diarrhea?	1	0	No.		N/A
g. Have you had any vomiting?	1	0	1-2 episodes, mild		N/A
h. Are you pregnant?	1	0	No.		N/A
B. Physical examination	1	0	What kind of physical exam would you perform?		N/A
a. I would examine the Vital Signs, I would read the chart to see the vital signs.	1	0	Heart Rate 108 BP, normal Fever 38.2 degrees		N/A
b. Palpate the abdomen	1	0	Extreme tenderness at this point (indicate point marked 1 on Figure 1) Rebound tenderness in right lower quadrant		N/A
c. Look for the Psoas Sign	1	0	Positive indications		N/A
d. Look for Internal Obturator sign	1	0	Positive indications		N/A
e. Look for Rovsing Sign	1	0	Positive Indications		N/A
C. Lab tests			Please list the tests you would ask for.		
a. Full blood count (Complete blood count)	1	0			1    0
i. Hemoglobin/HCT	1	0	Normal, 42% or 14 gr/dl		1    0
ii. White Blood Cell (WBC)	1	0	White Blood Cell count: 14,000/mm <sup>3</sup> , 90% neutrophils		1    0
iii. Red Blood Cell (RBC)	1	0	Normal		1    0
iv. Platelets	1	0	Normal		1    0
b. Hemoglobin/HCT (alone)	1	0	Normal, 42% or 14 gr/dl		1    0
c. Microscopy					
i. Malaria smear, M/S	1	0	Normal, Negative		1    0
ii. Malaria rapid diagnostic test (RDT)	1	0	Normal, Negative		1    0

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d. Immunologic					
i. HIV rapid testing	1	0	Normal, Negative		1    0
ii. Hepatitis B (HBsAG) and Hepatitis C (HCV) tests	1	0	Normal, Negative		1    0
e. Chemistry panels (Automatic analyzer)					
i. AST and ALT (liver enzymes)	1	0	Normal		1    0
ii. Amylase and Lipase (pancreatic enzymes)	1	0	Normal		1    0
iii. Chemistry (sodium, potassium, chloride, bicarbonate)	1	0	Normal		1    0
iv. BUN and creatinine (renal function)	1	0	Normal		1    0
v. Serum bilirubin	1	0	Normal		1    0
vi. Blood glucose, RBS (fasting or random)	1	0	Normal, 135 gr/dl		1    0
f. Blood gas analysis or Electrolyte panel	1	0	Normal		1    0
g. Urinalysis, U/A	1	0	Normal, Negative		1    0
h. Pregnancy test, MTT	1	0	Normal, Negative		1    0
i. Imaging					1    0
i. RUQ Ultrasound	1	0	Dilated Appendix >8mm in diameter		1    0
j. Other Tests and imaging	1	0	Normal		1    0
i. Other, specify: _____ _____ _____	1	0			1    0
D. I would call for assistance from another person	1	0	Who?		N/A
a. Specify title_____			[ALSO ASK THEM IF THEY WOULD DO ANYTHING ELSE]		
<b>Q102: What is your overall assessment of the woman's conditions (Stable, Guarded, Unstable, Critical, etc.) and what is her differential diagnosis?</b>					
A. Overall assessment(CHECK ALL ANSWERS GIVEN)					
a. Stable	1	0			N/A
b. Guarded	1	0			N/A
c. Unstable	1	0			N/A
d. Critical	1	0			N/A
B. Differential diagnosis(CHECK ALL ANSWERS GIVEN)					
a. Gastroenteritis	1	0			N/A
b. Biliary Colic	1	0			N/A
c. Gallstones	1	0			N/A
d. Acute cholecystitis	1	0			N/A
e. Appendicitis	1	0			N/A
f. Peritonitis	1	0			N/A
g. Acute Abdomen (Can you be more specific? What is the differential diagnosis?)	1	0			N/A
h. Empyema	1	0			N/A
i. Perforation	1	0			N/A
j. Acalculous Cholecystitis	1	0			N/A
k. Pancreatis	1	0			N/A
l. Diverticulitis	1	0			N/A
m. Trauma	1	0			N/A
n. Other, specify: _____ _____ _____	1	0			N/A
<b>Q103: What immediate steps would you take?</b>					
A. Call the attending physician	1	0		Q107	N/A
B. Call for consultation with surgeon	1	0			N/A
C. Admit	1	0			N/A

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D. Refer to other facility	1	0			N/A
E. IV line	1	0			N/A
F. Antibiotics	1	0			N/A
G. Prescribe NPO (nothing by mouth)	1	0			N/A
H. Nasogastric tube	1	0			N/A
I. Put under observation	1	0			N/A
J. Schedule an appendectomy	1	0			N/A
K. Emergent appendectomy	1	0			N/A
L. Other, specify: _____ _____ _____	1	0			N/A
<b>Q104: Using this healthy patient as a guide, or using me as a guide can you please indicate the location of the McBurney point, or the appendix.</b>	1	0			N/A
<b>Q105: Can you please demonstrate the appropriate steps you would take to examine the abdomen of a patient, in order to rule out the possibility of appendicitis.</b>	1	0			N/A
<b>Q106: Can you please demonstrate the steps necessary to look for the following signs? If you don't know what these terms mean, just tell me that you don't know them.</b>					N/A
A. Psoas sign					
a. Spontaneously named?	1	0			N/A
b. Spontaneously demonstrated?	1	0			N/A
c. Demonstrated after prompting?	1	0			N/A
d. Properly demonstrated?	1	0			N/A
B. Internal obdurator sign					
a. Spontaneously named?	1	0			N/A
b. Spontaneously demonstrated?	1	0			N/A
c. Demonstrated after prompting?	1	0			N/A
d. Properly demonstrated?	1	0			N/A
C. Rovsling sign					
a. Spontaneously named?	1	0			N/A
b. Spontaneously demonstrated?	1	0			N/A
c. Demonstrated after prompting?	1	0			N/A
d. Properly demonstrated?	1	0			N/A
<b>Q107: What equipment or medicines would you have used in the management of this case that is either not present, or is not currently working in this facility?</b>					
A. Other, specify: _____ _____ _____	1	0			1      0
<b>Q108: You mentioned the following laboratory tests as part of your examination [...] Can you verify that all of these tests are available at this facility right now?</b>	<u>1</u>	<u>0</u>			
RECORD TIME OF END OF THE SIMULATION (HH:MM)	__ __ : __ __ AM/PM				
GO BACK TO EACH ITEM IN THE SIMULATION THAT REQUIRES A PIECE OF EQUIPMENT OR A MEDICATION AND VERIFY THAT THE EQUIPMENT OR MEDICATION IS PRESENT.					
PLEASE PROVIDE ANY FURTHER COMMENTS ON THE QUALITY OF CARE:					