

Teaching at the Bedside: Practical Strategies to Overcome Real-World Challenges

Zahir Kanjee MD, MPH, FACP

Hospitalist and Firm Chief, BIDMC

Assistant Professor of Medicine, Harvard Medical School

zkanjee@bidmc.harvard.edu

Twitter: [@zahirkanjee](https://twitter.com/zahirkanjee)

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Objectives

By the end of this session, you will:

- **Recognize and articulate** the unique value of bedside teaching
- **Address barriers** to effective and efficient bedside teaching/rounding
- **Be ready to implement** several tips for better bedside teaching

Why teach at the bedside?

Educational Benefits

- Better feedback: assess reasoning, communication, examination
- Confirm/adjust history/physical early, efficiency
- Model clinical reasoning
- Model behavior (compassion, communication, professionalism)
- Teach physical examination

Nursing Benefits

- Many nurses like it

Patient Benefits

- Many patients like it
- Perception of more time in care
- Involve patient in discussions
- Show patient how smart their team is and how hard they're working
- Fun

Potential barriers to effective bedside teaching/rounding

1. Time (yours, theirs)
2. Learner concerns: intimidating, corrections, autonomy
3. Structure: roles/position, computers
4. Patients: talk too much, sensitive issues, intrusive, confusing
5. Teacher concerns: knowledge, communication deficiencies
6. Not thought worthwhile

1. Time

Bedside rounding does not take longer

Bedside rounding takes no more time at BIDMC (Gonzalo JGIM 2010):




- Mean duration new patient encounters: 16 vs. 15 min (p=0.42)
- Mean duration team rounding per day: 95 min vs. 98 min (p=0.52)





- But it must be done right.










1. Time

- Read beforehand

Settings







-  Cellular >
-  Personal Hotspot Off >
-  VPN Not Connected >

-  Notifications >
-  Sounds & Haptics >
-  Focus >
-  Screen Time >







-  General >
-  Control Center >
-  Display & Brightness >
-  Home Screen & App Library >
-  Accessibility >
-  Wallpaper >
-  StandBy >
-  Siri & Search >
-  Face ID & Passcode >

[Settings](#) Accessibility

VISION

-  VoiceOver Off >
-  Zoom Off >
-  Display & Text Size >
-  Motion >
-  Spoken Content >
-  Audio Descriptions Off >

PHYSICAL AND MOTOR

-  Touch >
-  Face ID & Attention >
-  Switch Control Off >
-  Voice Control Off >
-  Side Button >
-  Control Nearby Devices >
-  Apple TV Remote >
-  Keyboards >
-  AirPods >

[Accessibility](#) Spoken Content

Speak Selection

A Speak button will appear when you select text.

Speak Screen

Swipe down with two fingers from the top of the screen to hear the content of the screen.

Speech Controller Off >

Highlight Content Off >

Highlight content as it is spoken.

Typing Feedback >

Voices >

Default Language >

Detect Languages

SPEAKING RATE



Pronunciations >

9:11 5G 95%

Zzztest, A
 F 99 y.o. (2/15/1925) MRN: 8584536
 222-222-2222 (W)
 PCP: Emily Kellogg, MD

Epic

< Notes

Zahir Kanjee-Khoja, MD
 Physician Telephone Encounter
 Internal Medicine Signed
 Encounter Date: 9/17/2024

Tip: If needed, scroll horizontally

Chief Complaint: chest pain
History of Present Illness: This is a 99 y.o. female with a history of CAD who presents with fevers, chest pain and shortness of breath.

This is a sample note to demonstrate that notes can be dictated to you. This will allow you to "read" your notes before rounds so you can focus your time at the bedside with trainees on teaching and advancing patient care.

In the ED, initial triage vitals were T 101, BP 140/88, HR 90, RR 19, 88%RA.

On my history, she was fine until Wednesday, then had sudden onset chest pain and shortness of breath with fevers and chills.

PMH
 CAD, managed medically

Meds:
 ASA 81mg po qd
 Atorvastatin 80mg po qd
 Metoprolol succinate 100mg po qd

FH
 Myeloma in father

9:11 5G 95%

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Haiku

Navigation controls: back, forward, play/pause, stop, volume, and close.

Disclaimers: please don't use this in a way that limits your attention while driving/doing activities requiring your attention. While Apple keeps text on device, do not play out loud in public.

1. Time

- Read beforehand
- Pre-set limits on time, teaching points
- Limit teaching points, check in regularly on time
- Be intentional about what gets read out loud
- Be intentional about what is discussed/decided on rounds versus later
- Separate by intern?
- Defer longer patient conversations to later in the day

2. Learner Concerns

Preparing a team for bedside rounding

- What are your concerns about bedside rounding?
- What can be learned best at the bedside?
- How can we conduct rounds so that we and patients benefit from the time we invest at their bedside?

Effective Socratic Teaching at Bedside

- Supportive atmosphere, know/use learner names
- Enthusiasm
- The *right* approach to the “wrong” answer
 - Avoid grilling
 - Reword problem/question to help “discover” the correct answer
 - Acknowledge effort, difficulty
 - Say “wrong” in a non-demeaning way
- Pause before asking another person
- Show own knowledge gaps and model good learning

Ask the right type of question

1. **Factual** – How long has the patient had symptoms?
2. **Broadening** – What are other potential causes of this patient's lower abdominal pain?
3. **Justifying** – What supports your diagnosis?
4. **Hypothetical** – If the patient were immunocompromised, how would this change your diagnosis?
5. **Alternative** – What would be the advantage or disadvantage of surgery vs conservative treatment?

“Don’t just stand there, do something.”



“Don’t just do something, stand there.”



Other ways to address learner concerns

- Explicit acceptance that story may change
- Positive feedback, save negative feedback for later, correct with grace
- Phased approach to bedside rounding, demonstrate once?

3. Structure

Positioning



BEDSIDE2-R framework

Before

- **BED**

- **B**rief team
- **E**ngage patient
- **D**elineate roles

During

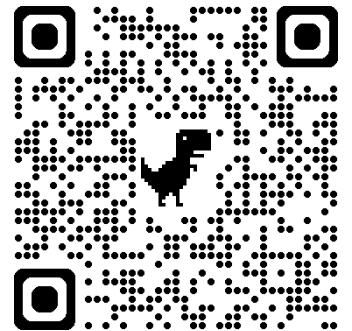
- **SIDE2**

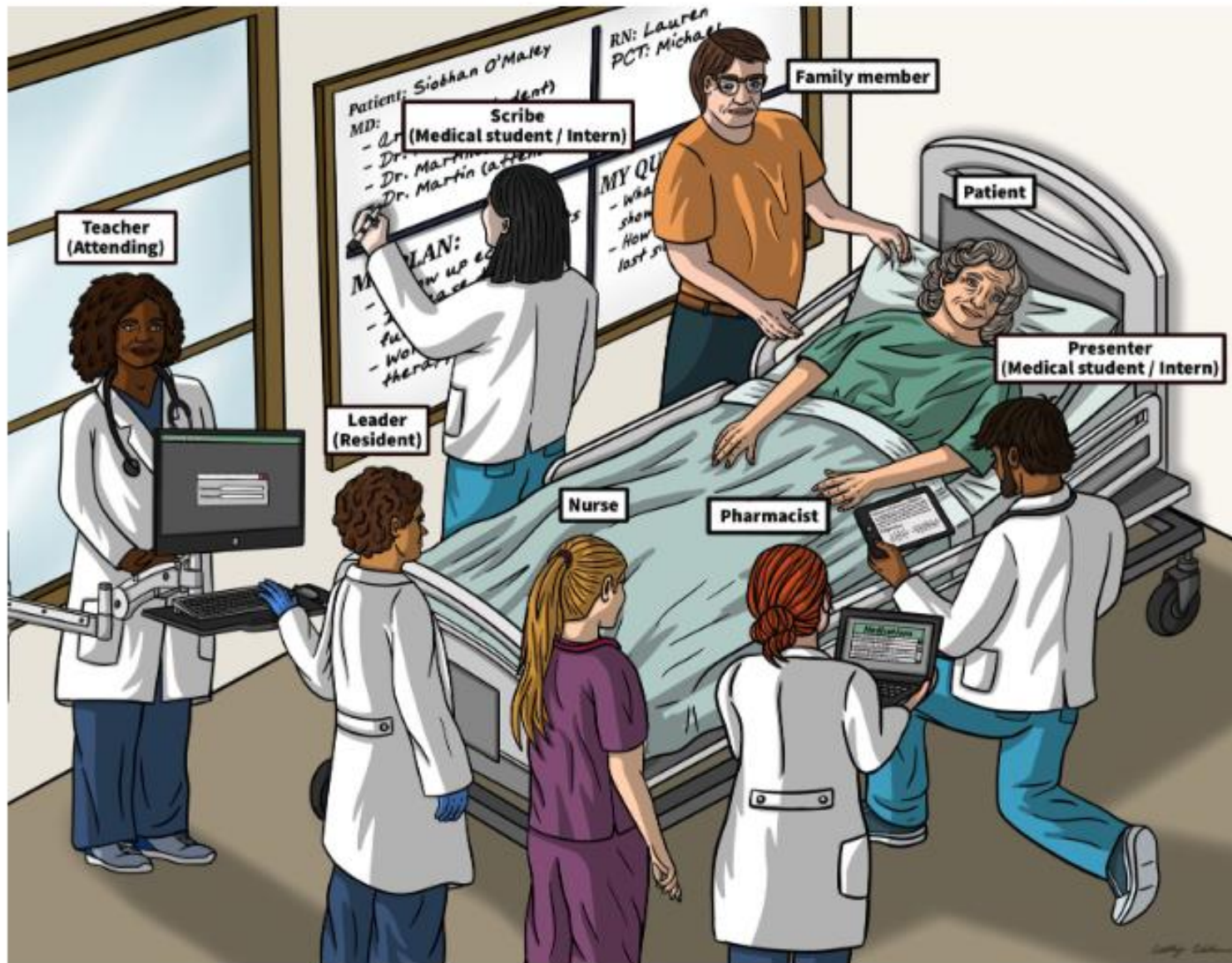
- **S**ummarize events
- **I**nvestigate data
- **D**emonstrate exam
- **E**xplain plan
- **E**nsure understanding

After

- **R**

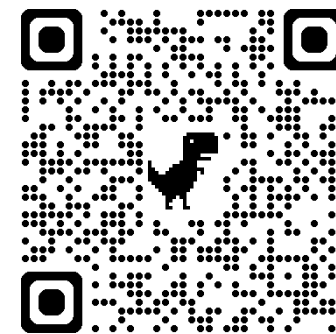
- **R**eflect in transit





BOX 1. Sample script for introducing BEDSIDE₂-R to patients

Ms. O'Maley, we'd like to discuss your plan of care today using a style of rounding called bedside rounds. We'll start by summarizing the overnight events and any pertinent physical exam findings. Then, we will investigate data by reading aloud your vital signs, lab results, and any new reports since yesterday. Next, we will demonstrate a cardiac examination as a team to listen to your heart murmur. Finally, we will explain the problem-based plan of care for today. Throughout our discussion, you may hear some medical terminology, so we will make sure to ensure understanding and answer any questions you have at the end. How does that sound to you?



4. Teacher Concerns

Actually teaching

- Hidden curriculum: “You can’t not teach.”
- Communication skills: “Could I add something?”
- Physical exam: multiple approaches



Actually teaching

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- Communication skills: “Could I add something?”
- Physical exam: multiple approaches





“You can’t
not teach.”

Charlie Hatem MD

Actually teaching

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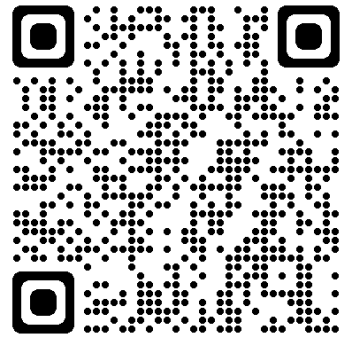


Teaching Communication Skills

“Could I Add Something?”: Teaching Communication by Intervening in Real Time During a Clinical Encounter

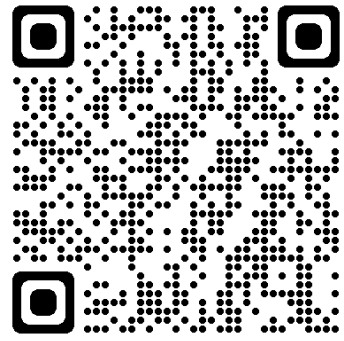
Anthony L. Back, MD, Robert M. Arnold, MD, James A. Tulsky, MD,
Walter F. Baile, MD, and Kelly Edwards, PhD

“Could I add something?”



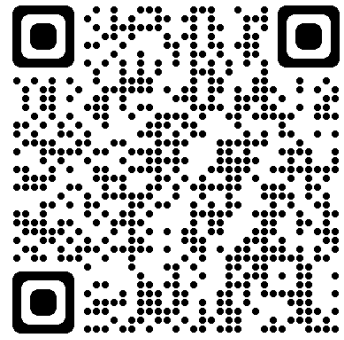
1. Prepare learner before going in the room.
2. Introduce yourself and your role to the patient.
3. Observe the learner’s communication skills.

“Could I add something?”



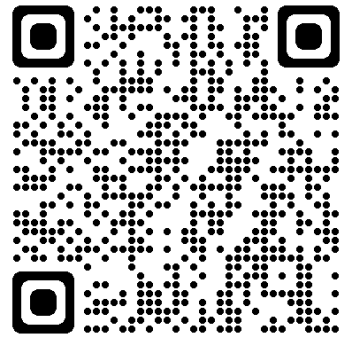
1. Prepare learner before going in the room.
2. Introduce yourself and your role to the patient.
3. Observe the learner’s communication skills.
4. Decide if intervention needed.
 - Not recognizing patient’s emotions and continuing would cause harm.
 - Emotions overwhelming learner.
 - (Egregiously incorrect information.)

“Could I add something?”



1. Prepare learner before going in the room.
2. Introduce yourself and your role to the patient.
3. Observe the learner’s communication skills.
4. Decide if intervention needed.
5. Frame the intervention as adding value.
 - **Step in.** “Could I add something here?”
 - Question is polite, role as supporter.
 - **Step out.** Give control back with “Dr. R, could I ask you to continue?” or “Dr. R, could I ask you to finish this up by talking about....?”

“Could I add something?”



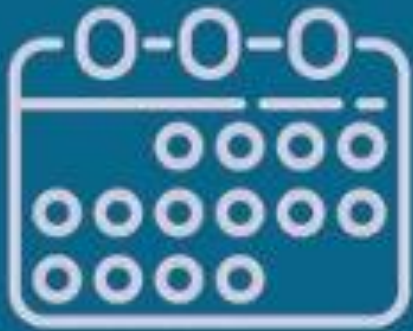
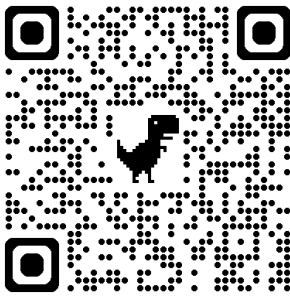
1. Prepare learner before going in the room.
2. Introduce yourself and your role to the patient.
3. Observe the learner’s communication skills.
4. Decide if intervention needed.
5. Frame the intervention as adding value.
6. Include the reason for intervening in learner debrief.

Actually teaching

- Hidden curriculum: “You can’t not teach.”
- Communication skills: “Could I add something?”
- Physical exam: multiple approaches



Incorporating Physical Exam Teaching at the Bedside on Rounds



Skill of the Day



Diagnostically Relevant



Clinical Trend



Imaging Correlation



Foster a culture of patient-centered care at the bedside

Ankle Reflexes^{1,2}

Narrative Section

HISTORICAL VIGNETTE - Did you know that the reflex hammer's history is rooted in wine? The story of the reflex hammer dates back to 1761 when Josef Leopold Auenbrugger first described the art of percussion adapted from his father's method of tapping wine casks to measure the level of remaining wine. Percussion was initially performed with a hammer, but it fell out of use when the fingers were used as pleximeter and hammer. The hammer would later be adapted by physicians for the deep tendon reflexes when Erb and Westhal described the diagnostic utility of the knee-jerk reflex, about 1875.



CLINICAL VIGNETTE AND USEFULNESS - Mr. Jones presented with progressive weakness in both legs and arms. The examination showed bilateral weakness in all 4 extremities. There was normal sensation below the clavicle, normal cranial nerves, and normal mentation. Deep tendon reflexes were very brisk, and there was ankle and patellar clonus. The Babinski and Hoffman reflexes were present with 3+ reflexes in all 4 extremities. The distinct constellation of findings suggested a transverse cord lesion. The differential would have been different had the reflexes been normal or absent.

¹ Chi J *et al.* "The Five Minute Moment." *Am J Med.* 2016 Aug; 129 (8): 792-795.

² Lanska, DJ. "The History of Reflex Hammers." *Neurology.* 1989 Nov; 39: 1542-1549.

Physical Maneuver

Model Proper Technique - two techniques can help elicit the ankle reflex in a bed bound patient. The first involves both legs fully extended and the examiner placing two fingers across the plantar surface of the metatarsal heads. With the foot cocked up, strike the hammer against the two fingers, looking for the brisk ankle contraction. Alternatively, the patient can outwardly rotate the hip, flex the knee. The examiner positions two fingers on the metatarsal heads. This time, though, strike the Achilles tendon directly to observe the contraction. Finally, in a patient who is unable to relax their lower extremities, cross the foot being examined over the lower part of the other leg and strike the Achilles tendon as before.

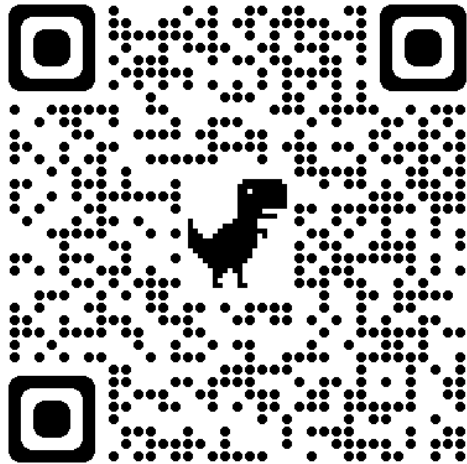


In a seated patient, have the patient relax the ankle while the examiner applies slight tension to the Achilles tendon by lifting the under the foot. Strike over the Achilles tendon to see the tendon contraction (S1 level) and the resulting plantar flexion of the foot.



INTERPRETATION - An explanation of reflex grading: 0 absent, 1+ slight but clear response, 2+ brisk and normal response, 3+ very brisk exaggerated response, 4+ clonus.

CAVEAT AND COMMON ERRORS - When first using the reflex hammer, many learners tend to hold the hammer too high. This lowers the torque and can lead to a reflex that is falsely absent because adequate pressure is not applied quickly. Holding the hammer in too tight a fashion impairs the stroke.



Virchow's Node¹

Narrative Section

HISTORICAL VIGNETTE / CASE STUDY -

A 72 year old man presented to the clinic with a 10 pound weight loss over the past year and swelling of the area of his left clavicle. He denied fever, chills, or night sweats. His examination was notable for being afebrile, a BP = 127/81, a pulse = 72, and respirations = 18. He had no cervical or axially adenopathy. His left supraclavicular fossa had a large, 2 cm, soft.



Clubbing^{1,2}

Narrative Section

HISTORICAL VIGNETTE -

While convalescing from emergency aortic and mitral valve surgery due to endocarditis, South African cardiologist Leo Schamroth noticed a change in his swollen digits. A painless, lilac hue at the nail beds began to recede after surgery. "The 'window' [seen by holding his nail beds together] reappeared 2 months after the infection had been controlled," he wrote in his landmark reflection on his own illness. However, it took many more months before the bulbous slope of the distal nail returned to its baseline shape. For decades since, "Schamroth Sign" of digital clubbing has been a marker for underlying disease, but a careful reading of the literature suggests that other bedside tests can indicate digital clubbing with both better inter-observer agreement and higher disease-specific reliability.



CONTEXT AND USEFULNESS - The presence of digital clubbing can help the aware clinician focus further work up. The "gold standard" diagnostic test to confirm clubbing, though, is an objective bedside measurement, not a lab test or radiograph. Clinicians should also recognize that clubbing has many causes (cardiac, hepatic, oncologic, pulmonary) and is not a part of the natural history of chronic lung disease. In these pulmonary patients, its presence predicts—but does not confirm—pathology. Most patients will not readily notice the change of their nails as the process of nail matrix hypertrophy is slow and painless.

¹ Chi J et al. "The Five Minute Moment." *Am J Med.* 2016 Aug; 129 (8): 792-795.

"Does This Patient Have Clubbing." *JAMA.* 2001 July; 286 (3): 341-347.

Physical Maneuver

Model Proper (And Improper) Technique - Virchow's node lie junction of the thoracic duct and the left subclavian vein, where from most of the body drains into the systemic circulation. Tumors gastrointestinal cancers via the thoracic duct usually leads to the enlargement of the left supraclavicular node. Virchow's node (al as Troisier's node or **Troisier's sign**) can be the first clue to a malignancy.² For this reason, they are also called sentinel or sig

A method for examination of the supraclavicular lymph nodes:

- 1) **Have patient seated upright** and facing forward as you palpate supraclavicular fossa
- 2) **Ask patient to perform the Valsalva** during the examination can help bring out an otherwise unapparent lymph node
- 3) **Instruct the patient to tilt their head** to the side being examined which can help in feeling deeper into the supraclavicular fossa

Physical Maneuver

Model Proper Technique - observation of the nail beds suggests clubbing with a "drumstick" or bulbous swelling of the distal phalanx. The nail bed often takes an erythematous hue. Nail angles can help bring objectivity to the assessment of the misshapen nail.

Observe the **"profile angle"** [ABC] at which the nail emerges from the nail bed (always more acute than a straight-line 180°) and the **"hyponychial angle"** [ABD] at which the nail bed and clipped-edge appear.



The most objective measure of clubbing, however, comes in assessing finger-tip depth (**phalangeal depth ratio**). The depth of the DIP joint [IPD] should always be greater than the depth of the DPD. Slide a tight ring on the finger and it should glide past the nail and stop at the knuckle. If it gets hung up on the nail first (if the ratio is reversed, or DPD:IPD >1.05), clubbing is present.



INTERPRETATION - Fingernails can present with many shapes and sizes. Careful examination of the nails of disease-free patients can often reassure them that clubbing is *not* present (i.e., if the depth ratio is <1.0). However, measures in patients with chronic lung disease confirming clubbing (>1.05 ratio) should also continue the quest for more sinister sources.

CAVEAT AND COMMON ERRORS - Remember: clubbing can rarely be hereditary (benign) or unilateral (indicative of a vascular source).

Cirrhosis^{1,2}

Narrative Section

HISTORICAL VIGNETTE - Hearts hold a place of prominence in the world of love, but it wasn't always so.

When Shakespeare wrote in his sixteenth century *Romeo and Juliet* that "young men's love lies not truly in their hearts, but in their eyes," his readers doubtlessly understood. But had that play been performed for an ancient Greco-Roman audience, or at a Babylonian theater, the listeners might have been perplexed. The seat of the soul, of love, and of human emotions in cultures before the modern era was thought to be the heart.



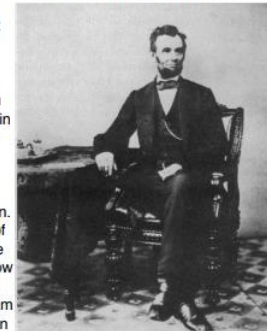
Clay sculptures from 2000 BCE (FIGURE 1) guided priests and artists in understanding this vital organ. The names they gave to its vessels survive into modern anatomical terms. Indeed, even the word "heart" might have been understood: reports indicate that Queen Elizabeth I in the sixteenth century was not referred to as England's *head of state*—but as *the heart*. This vital three-pound organ, holding over 10% of the body's blood from two separate sources, sends out distress signals when it is

Aortic Regurgitation^{1,2}

Narrative Section

HISTORICAL VIGNETTE - WHY IS THIS PHOTO OF ABRAHAM LINCOLN

blurred? Look at his left foot. It is blurred since the Lincoln had Marfan and associated Aortic Regurgitation. The diagnosis of AR stems in this photo to be due to aortic regurgitation, as found in a hyperlaxity; hence, Lincoln's Sign. Modern understanding of aortic regurgitation and the manifestations of this allow us to understand Lincoln's Sign in clinical practice. What physical examination findings would indicate a diagnosis of AR?



USEFULNESS - A 2006 review cited 31 eponyms in the medical literature describing the physical findings of aortic regurgitation. Many familiar pathophysiologic signs and pulse characteristics in vascular disease throughout the body. Remembering the underlying cause of these signs in their usefulness: aortic insufficiency causes a regurgitant flow in the aorta. Pathologic conditions resulting in incompetent valves can cause it (i.e. bicuspid valve, aortopathy, calcific disease, Marfan disease, syphilis, and endocarditis).

"The Five Minute Moment." *Am J Med.* 2016 Aug; 129 (8): 792-795.

Eponyms and the Diagnosis of Aortic Regurgitation: What Says the Evidence? *Curr Opin Cardiol.* 2003; 138: 736-742.

Physical Maneuver

Model Proper (And Improper) Technique - To properly assess the liver, place the patient in a recumbent position with the skin of the abdomen exposed. Note the presence or absence of **dilated abdominal veins** (*caput medusae*). In males, is *body hair reduced*? Is *gynecomastia* present? What about the presence of *spider angiomas* (FIGURE 2) across the abdomen and chest? Each of these findings suggest estrogen excess as the byproduct of poor hepatic function. Next, search for the **presence of ascites**. When the abdomen is distended, the probability of ascites is increased most by discovering the presence of a fluid wave (LR = 5.0) and the presence of edema (LR = 3.8). Palpating a firm liver edge suggests cirrhosis in chronic liver disease (LR = 3.3). Finally, sit the patient up and evaluate for hepatic encephalopathy. In the studies of physical exam signs and cirrhosis, **encephalopathy** was defined as *disordered consciousness* plus *asterixis*. The conscious patient, with arms outstretched and fingers spread, can be assessed for asterixis by observing for the sudden "flap" of the hands. This occurs when the patient is unable to hold the fixed position. (If necessary, an elevated leg and flexed foot can achieve the same result). EMG studies have demonstrated a "negative myoclonus" occurring during asterixis—a transient interruption of electrical signal to the muscle.



INTERPRETATION - The dilated abdominal wall veins increase the likelihood of cirrhosis most (LR = 9.5), followed by equal measures of

Physical Maneuver

Model Proper (And Improper) Technique - The first step in recognizing abnormal signs of AR is to practice normal technique. When listening for diastolic murmurs—the absence of silence—sit the patient forward, listen in end-expiration, and time diastole by palpating a central pulse (i.e. a carotid). Train your ears on the normal to prepare them for the abnormal. Also, examining for collapsing pulses of AR is best done through the brachial artery, feeling for rapid drop-off. If listening for femoral arteries, position the patient supine, compress the artery with two fingers, and keep the stethoscope's diaphragm flat on the skin.

A 2003 review¹ found these four signs have the most diagnostic value:

- 1) **Corrigan's pulse** —the "water hammer" or "collapsing" is characterized by a rapidly swelling and falling arterial pulse.
- 2) **Duroziez's sign** —a systolic and diastolic bruit heard when the femoral artery is partially compressed.
- 3) **Hill's sign** —lower extremity (foot) systolic pressure exceeding upper extremity (brachial) by more than 20 mmHg in the recumbent position. This test has a **LR=17.3** if the foot-arm systolic gradient >60 mmHg.³
- 4) **Austin Flint murmur** —a low-pitched, mid-to-late diastolic rumble heard at the apex. This murmur has been attributed to the effects of competing antegrade turbulent diastolic flow from the left atrium and the retrograde regurgitant flow from the aorta.

INTERPRETATION - Hill's sign has the strongest specificity (71-100%) and is more frequent with more severe AR. Of course, it must be taken in the context of other coexisting co-morbidities such as atherosclerosis. Rather than commit each eponym to memory, remember the principle that a column of blood is reversing. Some signs that directly reflect this (Duroziez's) are more reliable and accurate than indirect measures.

CAVEAT AND COMMON ERRORS - Know that these signs apply to *chronic* aortic regurgitation. Acute aortic regurgitation signs are less well described.

Special thanks to **Dr. Junaid Zaman** for submitting this 5M2.

³ McGee, Steven. *Evidence-Based Physical Diagnosis*, 4th ed. Philadelphia, PA: Elsevier; 2018.





State



Ask



Identify



Demonstrate



Look



Reinforce

 OPEN ACCESS | April 7, 2022

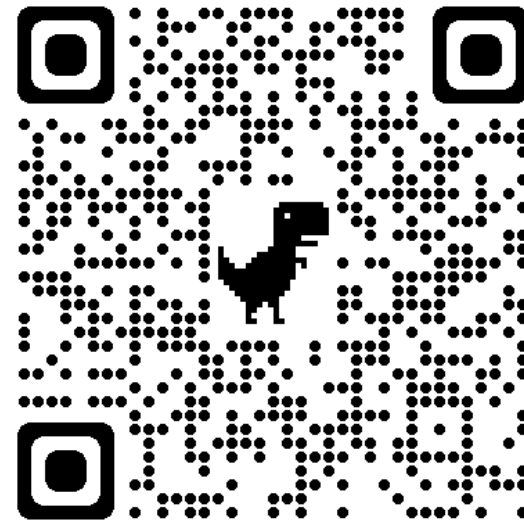
Teaching Evidence-Based Physical Diagnosis: A Workshop for Hospitalists

Zahir Kanjee, MD, MPH  , Anjala V. Tess, MD

https://doi.org/10.15766/mep_2374-8265.11243

 Sections

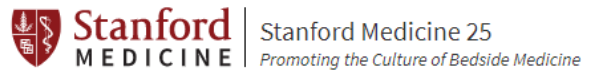
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Knowledge resources for physical examination teaching

- Websites: Stanford 25
- Societies: Society of Bedside Medicine
- Apps: DocLogica, SDx, CORE
- Books: McGee
- Papers: JAMA Rational Clinical Examination



An Initiative of the Program for Bedside Medicine



The Stanford Medicine 25

This site is a map to a territory that must be explored in person. We created this website to complement live, hands-on Stanford Medicine 25 sessions — the site isn't meant to be a substitute for personal experience. This site is a place to remind ourselves of what we learned or are about to learn in a hands-on session.



Gait Abnormalities

Abnormal gaits are commonly seen in the hospital and elsewhere. Many of them should be recognizable on sight and it would be a shame to subject a person to a CAT or MRI for lack of recognition. We review a number of abnormal gaits and their disease associations.

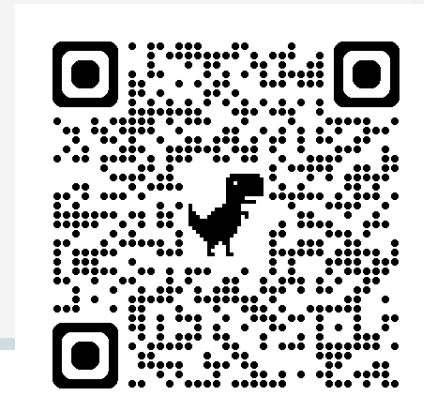
[Learn about gait abnormalities >](#)



Fundoscopic Exam

When it comes to an ophthalmoscopic exam there's more to it than meets the eye! Here we take a look at the various

- [Ankle Brachial Index](#)
- [Ankle Brachial Index OLD](#)
- [Ankle and Foot Exam Stanford Medicine 25 Stanford Medicine](#)
- [Aortic Regurgitation Exam](#)
- [Ascites & Venous Patterns](#)
- [Bedside Ultrasound](#)
- [Breast Exam](#)
- [Cardiac Second Sounds](#)
- [Cerebellar Exam](#)



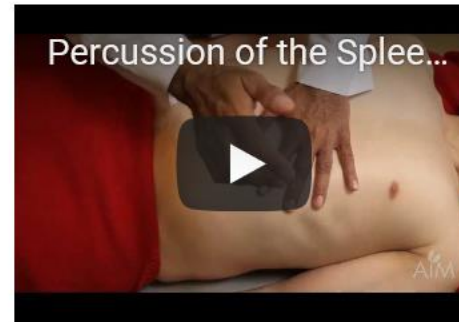
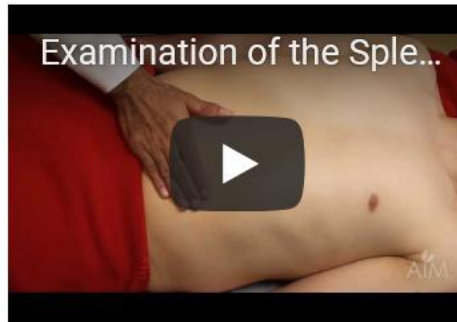


Stanford 25 YouTube Channel →

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- Thyroid Exam
- Women's Health (Breast & Pelvic Exam)
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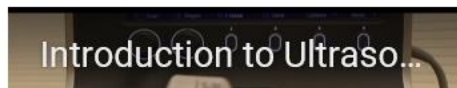
Abdominal Examination



Ankle Brachial Index



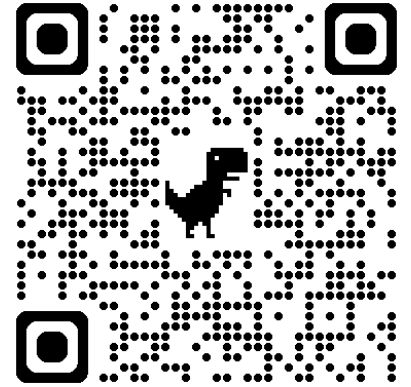
Bedside Ultrasound





Updating database, please wait...

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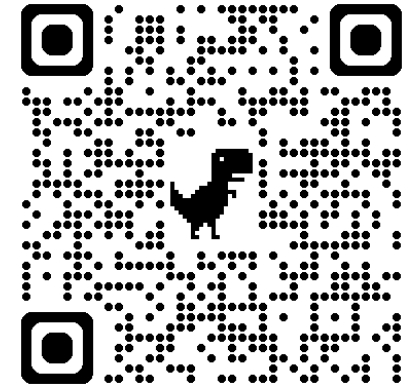


CORE: Google Play Store





CORE: Apple App Store



CORE: Google Play Store



3:48 ↗

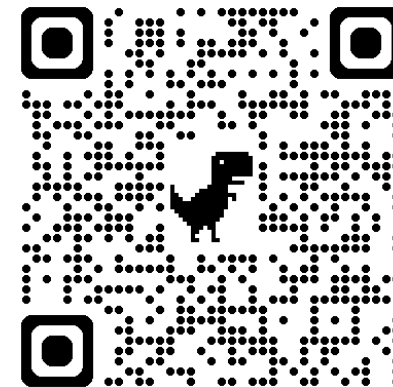
◀ Search

◀ Knee-Leg

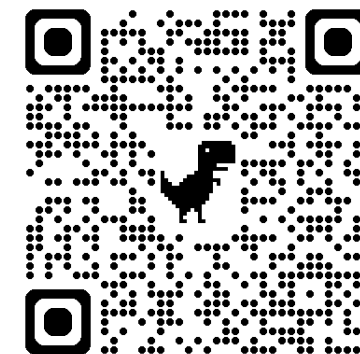
Pathology Alphabetical

Alignment	1 >
Effusion	2 >
Instability	37 >
Mensicus	15 >
Muscle-Tendinopathy	2 >
Patellofemoral	4 >

CORE: Apple App Store



CORE: Google Play Store





KNEE-LEG



TEST NAME
Bulge Sign

TEST CATEGORY
Effusion

CONDITIONS
Knee Osteoarthritis

TEST INFORMATION

 **Notes**  **Properties**

VIDEO

 **Stream**  **Download**

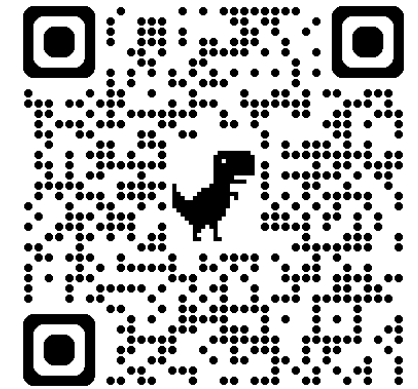
PURPOSE

The purpose of this test is to objectively assess for swelling and edema in the knee joint.

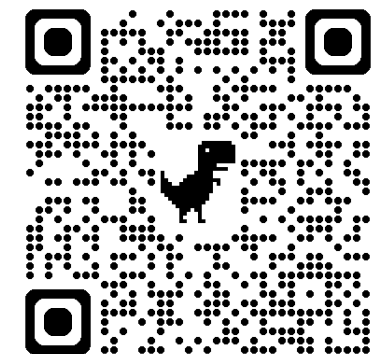
INSTRUCTIONS

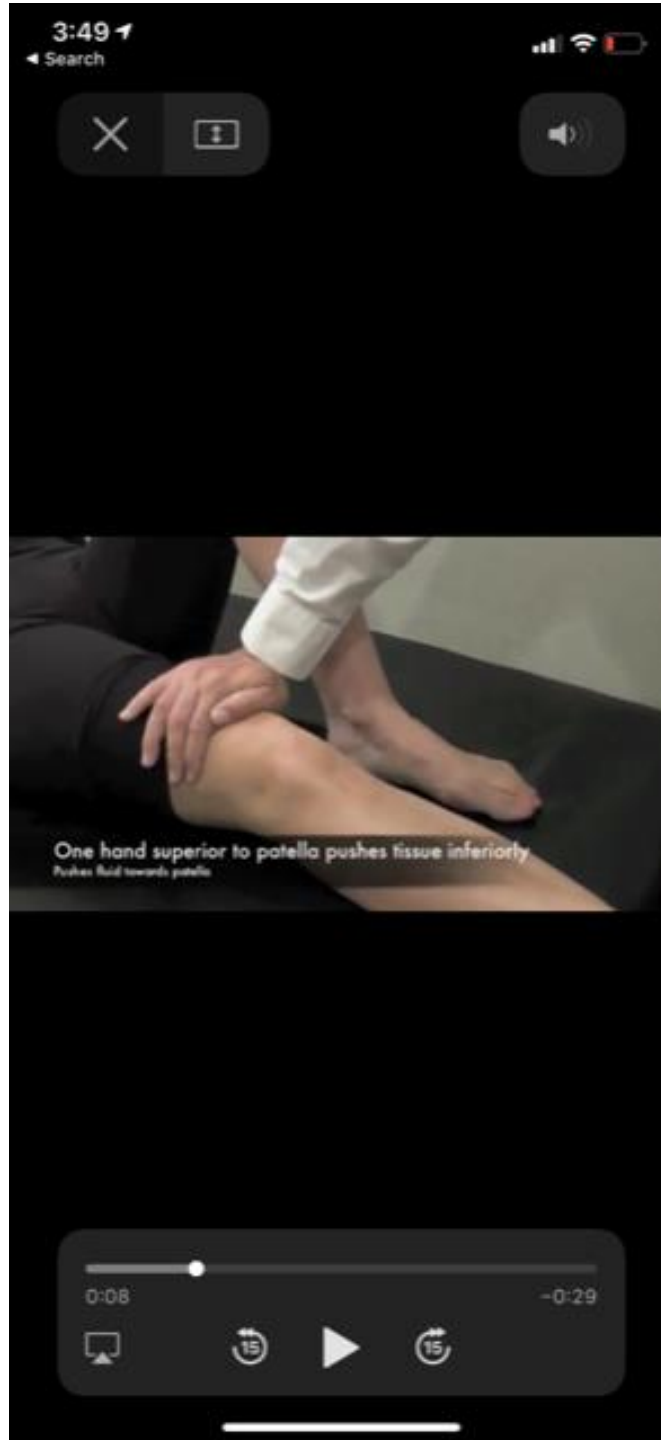
1. The examiner, with 1 hand located superior to the patella, pushes the tissues (and possible fluid) inferiorly towards the patella.
2. Keeping this hand in this position while holding pressure on these tissues, the examiner uses the other hand to press the medial aspect of the knee just posterior to the patellar edge to force any fluid within the joint laterally.
3. While watching the medial joint area, the hand over this area is taken and used to press quickly along the lateral (ie, opposite) aspect of the knee, looking for a fluid wave to present medially.

CORE: Apple App Store

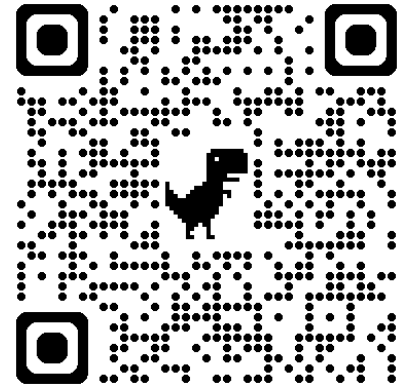


CORE: Google Play Store



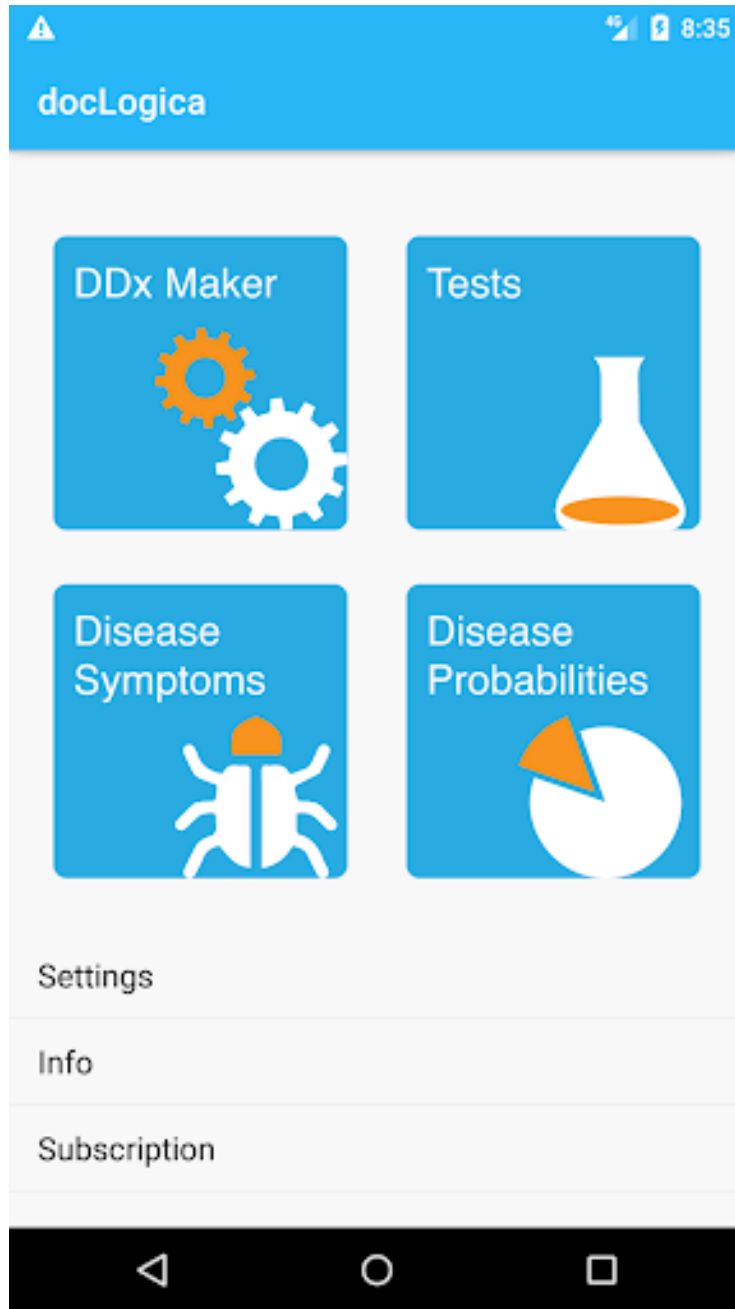


CORE: Apple App Store



CORE: Google Play Store

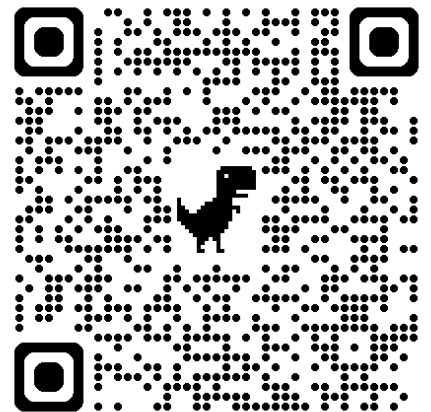


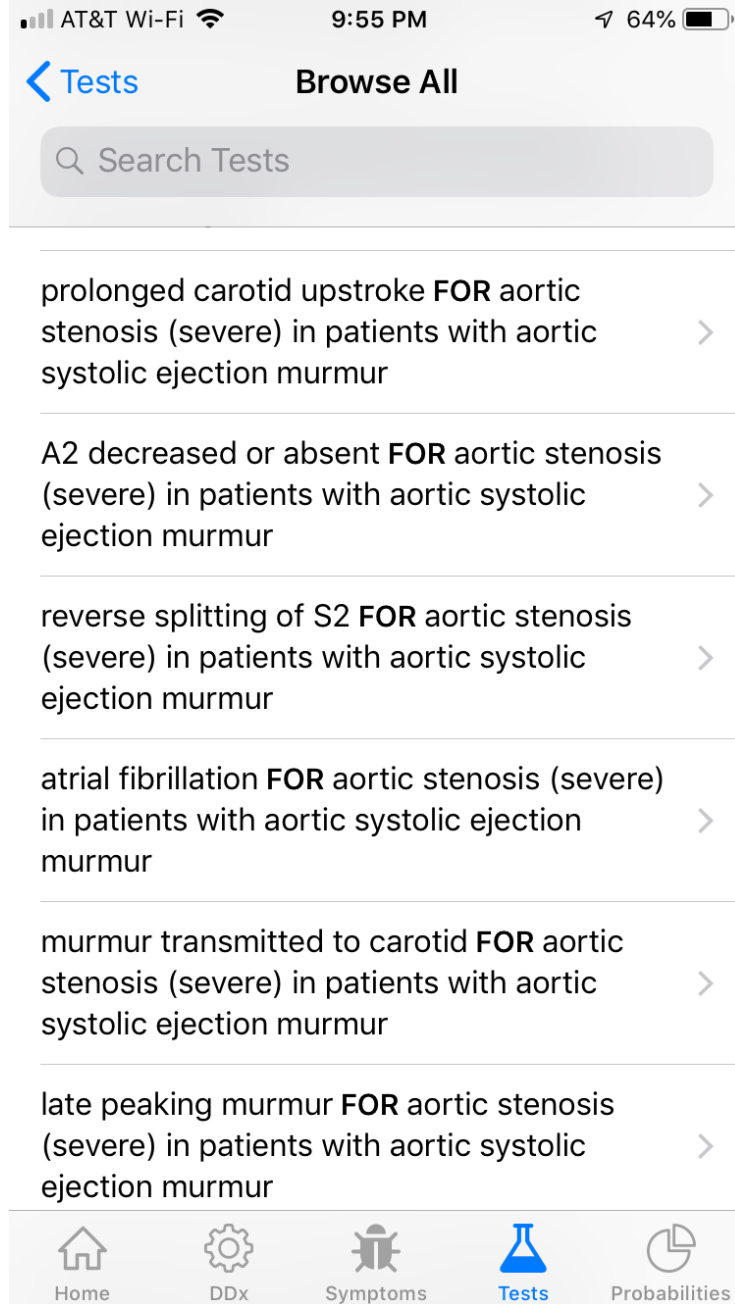


docLogica: Apple
App Store

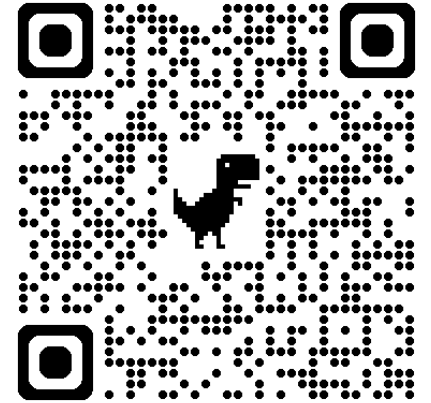


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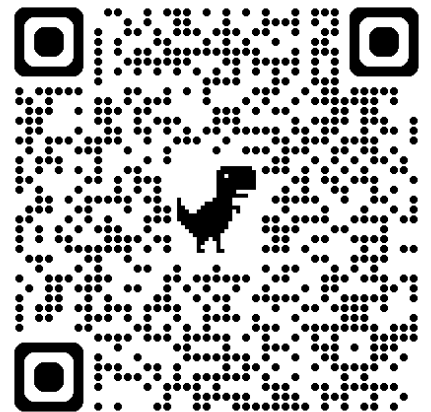




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[Browse All](#)

Calculate

Test: A2 decreased or absent

Disease: aortic stenosis (severe) in patients with aortic systolic ejection murmur



Likelihood Ratio (95% CI):
5.74 (3.04-10.81)

Pre-Test Probability: 50%



Post-Test Probability (95% CI):
85% (75%-92%)



Home



DDx



Symptoms



Tests

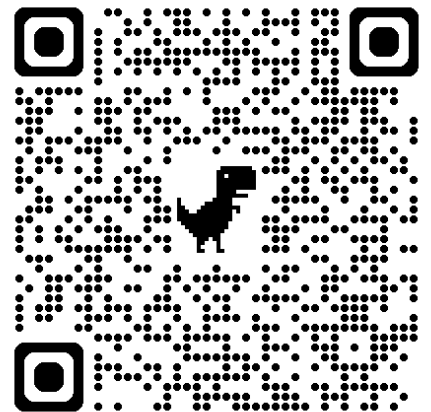


Probabilities

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- [Does this patient with shoulder pain have rotator cuff disease?: The **Rational Clinical Examination** systematic review.](#)

Hermans J, Luime JJ, Meuffels DE, Reijman M, Simel DL, Bierma-Zeinstra SM.

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JAMA Evidence

THE RATIONAL CLINICAL EXAMINATION

EVIDENCE-BASED CLINICAL DIAGNOSIS



STEVEN MCGEE



Evidence-Based Physical Diagnosis

EDITION
5



Finding	Positive Likelihood Ratio (95% CI)	Negative Likelihood Ratio (95% CI)	Pre-Test Probability (Range)
EBM BOX 51.4 ASCITES			
Bulging flanks	1.9 (1.4, 2.6)	0.4 (0.2, 0.6)	24-33
Edema	3.8 (2.2, 6.6)	0.2 (0, 0.6)	24
Flank dullness	1.8 (0.9, 3.4)	0.3 (0.1, 0.7)	24-29
Shifting dullness	2.3 (1.5, 3.5)	0.4 (0.2, 0.6)	24-33
Fluid wave	5 (2.5, 9.9)	0.5 (0.3, 0.7)	24-33
CHAPTER 52 ABDOMINAL PAIN AND TENDERNESS			
Sonographic McBurney's point tenderness, detecting appendicitis	8.4 (2.9, 24.6)	0.1 (0.1, 0.3)	67
Sonographic Murphy's sign, detecting cholecystitis	9.9 (5.4, 18.3)	0.4 (0.3, 0.6)	21
Murphy's sign in patients with liver abscess, detecting biliary tract sepsis	2.8 (1.1, 6.9)	0.8 (0.6, 1)	40
Left lower quadrant tenderness, detecting diverticulitis (surgery)	13.8 (6.3, 30)	0.8 (0.7, 0.9)	17
Left lower quadrant tenderness, detecting diverticulitis (CT scan)	2.2 (1.7, 2.7)	0.4 (0.3, 0.5)	43
Loin tenderness, detecting ureterolithiasis	27.7 (10.7, 72)	0.9 (0.8, 0.9)	4
Renal tenderness, detecting ureterolithiasis	3.6 (3.1, 4.1)	0.2 (0.1, 0.3)	4
Microscopic hematuria, detecting ureterolithiasis	73.1 (41.7, 128)	0.3 (0.2, 0.4)	4
Positive abdominal wall tenderness test in chronic abdominal pain, predicting	7 (3.4, 14.3)	0.2 (0.1, 0.5)	35



5. Patient concerns

- Defer longer conversations to later in day
- Defer *certain* sensitive issues to before/after
- Separation of “MD” and “patient” discussions, appropriate explanation

6. Not worthwhile?

- Focus on bedside teaching
- Be cognizant of time, situational awareness
- Enthusiasm
- Emphasize benefits in real-time
- “You can’t not teach.”

Barriers to Bedside Rounding	Potential Solutions
Time (yours, theirs)	Done well, shortens time Read beforehand, be intentional of what happens on rounds vs after Expectation setting, returning for longer conversations Pre-set limits on time, teaching points
Learner concerns: intimidation, autonomy	Huddle, debrief Safe learning environment, explicit acceptance that story may change Positive feedback, save negative feedback for later, correct with grace Phased approach, demonstrate once? Ask <i>how/why</i> rather than <i>what</i> questions, avoid factual questions “Don’t just do something, stand there.”
Structure	Standardization: positions, roles, BEDSIDE2-R Tablets, computers in room, WOWs
Teacher concerns: knowledge, communication deficiencies	Prepare before: review topics/teaching points, develop/save scripts, return to preferred teaching topics “Can I add something?” PE teaching resources
Patients: too talkative, sensitive issues, confusing	Expectation setting, including patient (time, coming back) ? defer sensitive issues to before/after Separation of “MD” and “patient” discussions, appropriate explanation
Not thought worthwhile <small>Sources: Gonzalo JGIM 2010, Ricotta JHM 2019, Lichstein&Atkinson Med Clin N America 2018, Gonzalo Acad Med 2014, Ramani Med Teach 2003, Ramani Med Teach 2009, LaCombe Ann Intern Med 2011, others</small>	Enthusiasm, emphasize benefits in real time “You can’t not teach.”