

Introduction to Just in Time Teaching (JiTT) Infographics

Using technology to enhance professional development

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KEY FACTS

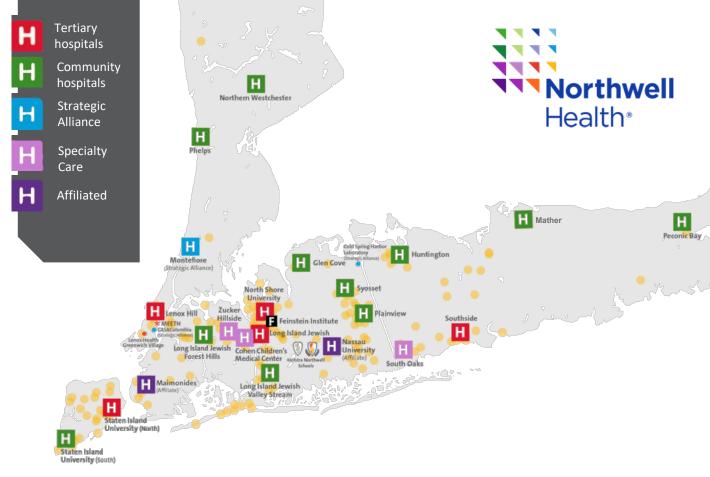
The largest integrated health system New York State



750+ Ambulatory facilities

~2,000 trainees and fellows





Five tertiary hospitals

- Lenox Hill Hospital
 - Manhattan Eye, Ear & Throat Hospital
- Long Island Jewish Medical Center
- North Shore University Hospital
 - Sandra Atlas Bass Heart Hospital
- Southside Hospital
- Staten Island University Hospital, North

Three specialty care hospitals

- Cohen Children's Medical Center
- South Oak's Hospital
- Zucker Hillside Hospital

11 community hospitals

- Glen Cove Hospital
- Huntington Hospital
- Long Island Jewish Forest Hills
- Long Island Jewish Valley Stream
 - The Orthopedic Hospital
- Northern Westchester Hospital
- Mather Hospital
- Peconic Bay Medical Center
- Phelps Hospital
- Plainview Hospital
- Staten Island University Hospital, South
- Syosset Hospital

Four Affiliated hospitals

- Boca Raton Regional Hospital, FL
 - Crouse Health, NY
- Maimonides Medical Center , NY
- Nassau University Medical Center, NY

Strategic alliances

- CASAColumbia, NY
- Cold Spring Harbor Laboratory, NY
- Epworth HealthCare, Richmond, Australia
- Karolinska Institute
- One Brooklyn Health
- OPKO Health BioReference Laboratories
- Rothman Institute
- University of Norte Dame
- Western Connecticut Health Network
- Yale New Haven Health

Presentation Learning Objectives

Explain

A newly designed, technology-assisted resident and faculty development program, Just in Time Teaching (JiTT) Tools, content, logistics and outcomes.

Engage

Participants to include technology-assisted faculty development in their toolbox to meet the needs of faculty and trainees in busy clinical roles.



BACKGROUND

Trainees spend up to 25% of time teaching medical students

Medical students **credit 1/3 of their clinical knowledge** to teaching from trainees as important teachers

Therefore many trainee programs considers teaching skills such as Resident as Teacher (RAT) a core competency

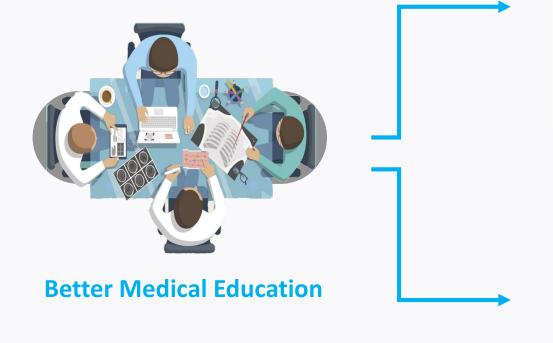


Though many times trainees

feel unprepared

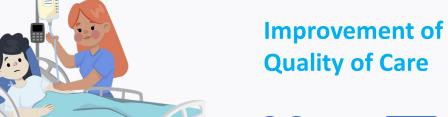
Unsure...
What to teach? And When and How to teach it?

Why it matters?





Satisfaction with role Professional identity formation







Productivity



SELECTED PROGRAMS



STEPS TO IMPLEMENTATION

STEP 4: DELIVER

MATERIALS

Via APP

STEP 2: UPLOAD

A distribution list for APP subscribers

STEP 04: Assure trainees and faculty download APP

STEP 02: UPLOAD to APP as an INFOGRAPHIC

STEP 2: CONTENT to INFOGRAPHIC

STEP 01: CREATE CONTENT

Social Media Modalities to deliver material



STEP 1: CREATE

 A template for your evidence-based teaching tips **Just in Time Teaching Tools**





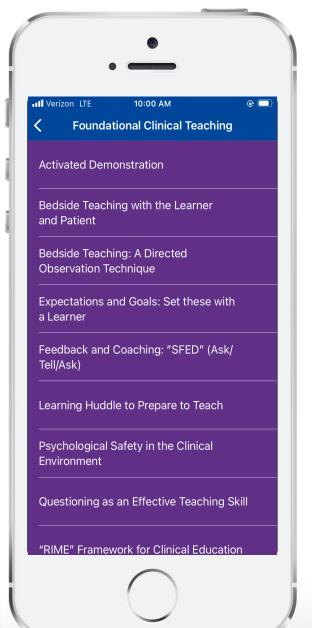
JiTT Categories

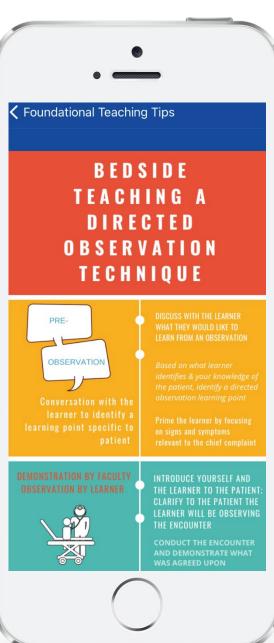


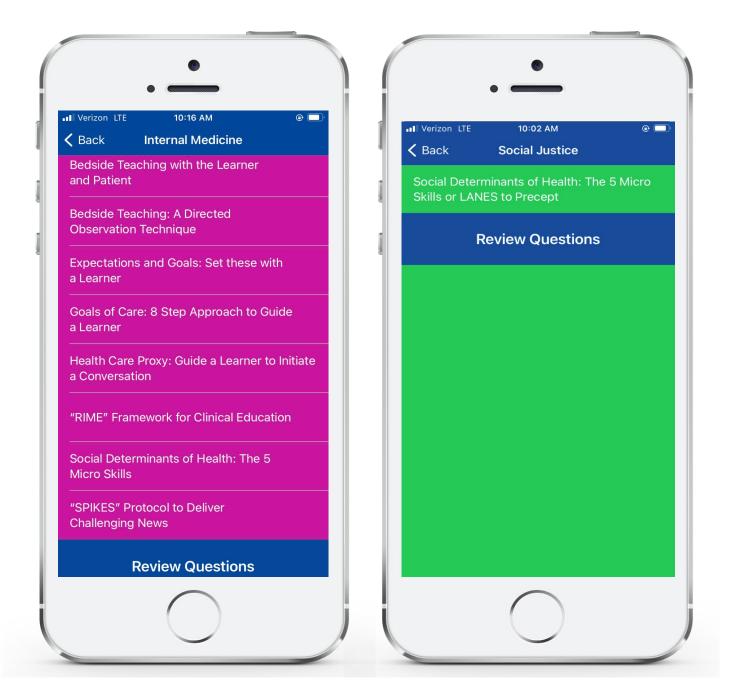




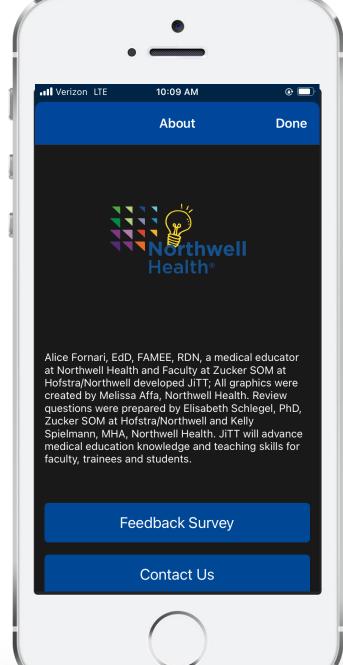


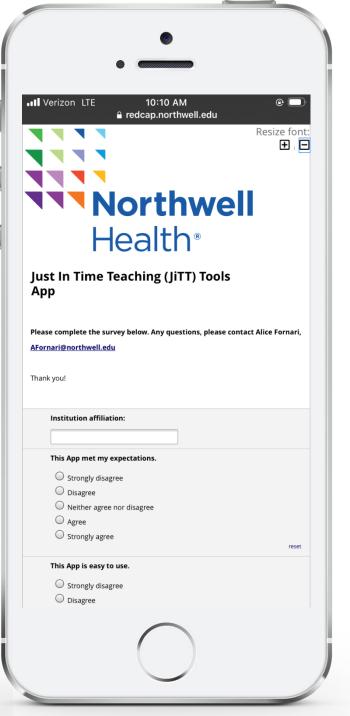


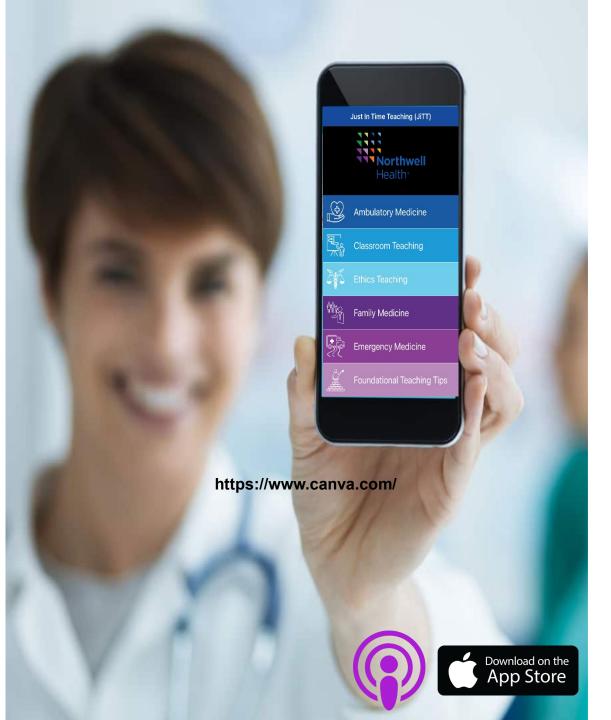












Foundational Teaching Tools

Teaching topics include:

- Bedside Teaching with the Learner and Patient
- Bedside Teaching: A Directed Observation Technique
- Expectations and Goals: Set these with a Learner
- Feedback and Coaching: "SFED" (Ask/Tell/Ask)
- Learning Huddle to Prepare to Teach
- Psychological Safety in the Clinical Environment
- Questioning as an Effective Teaching Skill
- "RIME" Framework for Clinical Education
- Social Determinants of Health: The 5 Micro Skills or LANES to Precept
- Socratic Method Technique as a Teaching Skill
- The 5 Micro Skills: Precept with Limited Time



EXPECTATIONS AND GOALS: SET THESE WITH A LEARNER





Help the learner identify expectations particular for this clinical setting

Help the learner set goals that are specific, realistic, and timely





Exchange preferred contact information for ongoing communication

'Check to assess progress towards goals

Who see "Leaning Hoods to Freque to Track"

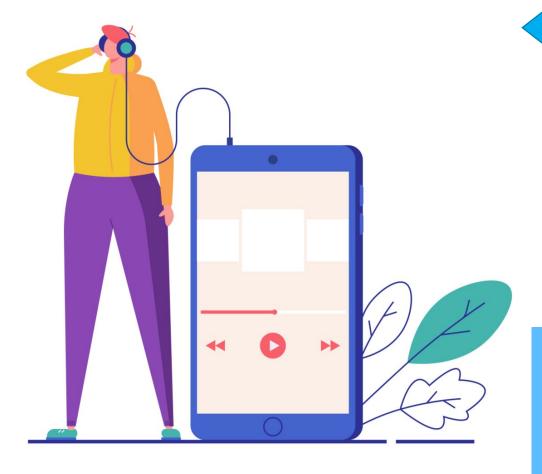
4. FOLLOW-UP



Looking for more? Give a Listent

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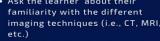
SPECIALTY SPECIFIC JITT Tools

Teaching topics include:

- How To Perform an OB/GYN History
- How To Teach To Evaluate for Rupture of Membrane/Amniotic Fluid
- Teaching Neurologic Imaging
- Teaching the Neurologic Exam
- How To Teach Conducting Abdominal Exam for Surgery
- Teaching to Prepare a Student for the Operating Room
- **Teaching Functional History**
- How To Deliver Challenging News
- Teaching in the Operating Room
- **Bedside Teaching for Mobility Assessment**
- **Teaching Manual Muscle Testing**
- Teaching How to Conduct PM&R Consults
- Teaching Family centered Rounds with Patients and Families
- Teaching Pre-Family Centered Rounds Outside of the Room
- **Teaching Psychotherapies**
- A Framework for teaching the Biosocial Formulation
- Using the Socratic Method in Teaching
- **Teaching Abdominal Imaging**
- How to Interpret an Abdominal Image

NEUROLOGIC IMAGING





- Discuss the clinical findings and ask about where they think the localization will be prior to looking at the image
- Decide who will "drive"the review by asking the learner if they feel comfortable enough to lead. If not, you can "drive the review'
- The Learner, if comfortable, or you will "drive" the image review
- If reviewing an MRI make sure to ask the learner about how they can ell the difference between sequences (T1 T2, FLAIR, DWI, ADC, etc.)
- Have the learner point out different landmarks they see in the brain or
- Ask the Learner to show where the "lesion" can be found

AFTER REVIEWING



- · Provide feedback about their reading of the image
- · Leave time for questions, clarifications
- · clarify if expectations were met and what to do differently next time
- If the learner did not"drive" the study, ask them if they would like to lead next time a study is reviewed

HPI/CHIEF COMPLAINT

Including onset, duration, severity, and associate symptoms

OB REVIEW OF SYSTEMS

Assess for contractions, leakage of fluid, vaginal bleeding, and fetal movement

OB HISTORY

Gravida/Para, including years of pregnancies, gestational age at delivery, mode of delivery, birth weight, and any complications

GYN REVIEW OF SYSTEMS

Assess for vaginal bleeding, discharge, pelvic pain, fevers and

GYN/SEXUAL HISTORY: LMP

Age of menarche, characterization of menses (duration, intervals), history of cysts, fibroids, abnormal pap smears, sexual activity, sexual orientation, and contraception use

PREVENTATIVE HEALTH CARE

Pap, Mammogram, Colonoscopy,

AIN A BASIC MEDICAL/SURGICAL HISTORY **REVIEW MEDICATIONS REVIEW ALLERGIES** FOR TOBACCO, ALCOHOL, ILLICIT DRUG USI



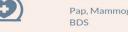


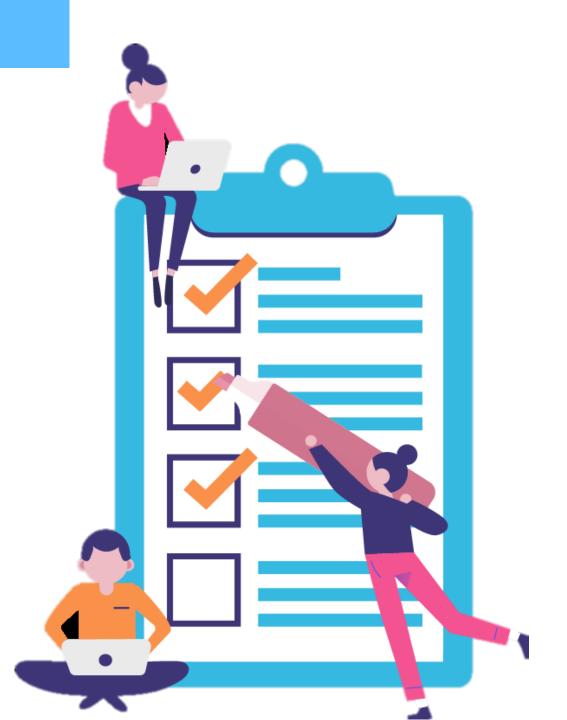














Just In Time Teaching (JiTT) Tips App

Please complete the survey below. Any questions, please contact Alice Fornari, AFornari@northwell.edu

Thank you!		
1) This App met my expectations.	 Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree 	re
2) This App is easy to use.	 Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree 	re
3) I would recommend this App to my colleagues/peers.	 Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree 	re
4) Comments:		

Evidence Based Literature



Abdominal Exam: How to Teach the Skill

Mealie CA, Ali R, Manthey DE. **Abdominal Exam.** In: StatPearls. Treasure Island (FL): StatPearls Publishing; June 23, 2020.



Abdominal Imaging in the Operating Room

Beggs AD, Thomas PR. **Point of use ultrasound by general surgeons: review of the literature and suggestions for future practice.** Int J Surg. 2013;11(1):12-17. doi:10.1016/j.ijsu.2012.11.014



Activated Demonstration

Irby DM, Wilkerson L Teaching when time is limited. BMJ. 2008;336(7640):384-387. doi:10.1136/bmj.39456.727199.AD



Adherence History: Components to Teach

Brown MT, Bussell J, Dutta S, Davis K, Strong S, Mathew S. Medication Adherence: Truth and Consequences. Am J Med Sci. 2016;351(4):387-399. doi:10.1016/j.amjms.2016.01.010



Ask a Clinical Question: Use the Medical Literature to Answer

Izcovich A, Criniti JM, Popoff F, et al Answering medical questions at the point of care: a crosssectional study comparing rapid decisions based on PubMed and Epistemonikos searches with evidence-based recommendations developed with the GRADE approach BMJ Open 2017;7:e016113. doi: 10.1136/bmjopen-2017-016113



Asynchronous and Synchronous Sessions for Online Learning

Liu Q, Peng W, Zhang F, Hu R, Li Y, Yan W. The Effectiveness of Blended Learning in Health Professions: Systematic Review and Meta-Analysis. J Med Internet Res. 2016;18(1):e2. Published 2016 Jan 4. doi:10.2196/jmir.4807



Bedside Teaching with the Learner and Patient

Kim RH, Mellinger JD. Educational strategies to foster bedside teaching. Surgery. 2020;167(3):532-534. doi:10.1016/j.surg.2019.06.007



Bedside Teaching: A Directed Observation Technique

Mookherjee S, Cabrera D, McKinney CM, Kaplan E, Robins L. **Observing bedside rounds for faculty development.** Clin Teach. 2017;14(6):446-450. doi:10.1111/tct.12614





New education method or tool

Open Access

Impact of using infographics as a novel Just-in-Time-Teaching (JiTT) tool to develop Residents as Teachers

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Categories: Educational Strategies, Students/Trainees, Teaching and Learning

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For viewing of JITT Tips

http://libguides.hofstra.edu/mededresources/teachingresources
Additional faculty development resources,
https://medicine.hofstra.edu/faculty/facdev/index.html

New JiTTs

SOCIAL DETERMINANTS OF HEALTH: THE 5 MICROSKILLS OF LANES TO PRECEPT



#1 TELL & COMMIT

- . TELL ME ABOUT THE PATIENT YOU JUST SAW
- WHAT SPECIFICALLY ABOUT THE PATIENT'S SOCIAL CIRCUMSTANCE HAS APPECTED THEIR HEALT HE

- . WHAT QUESTIONS DID YOU ASK AS PART OF YOUR SOCIAL HISTORY THAT SUPPORTS YOUR DIAGNOSIST
- . WHAT CAN WE DO TO HELP!

#3 TEACH

- . FIND A TEACHING POINT USING SOON AND THE PATIENTS!
- PRESENTING ILLNESS
- ACKNOWLED GET-WAYE WE CONSIDERED THE PATIENTS UNINSURED STATUS!"
- EMPATHIZE 100 YOUT HINK THE PATIENT MAY BE FRUSTRATED ABOUT
- UNSAFE CONDITIONS TO EXERCISE IN THEIR NEIGHBORHOOD!"
- ACTIVATION: FIND SOON SERVICES SPECIFIC TO PATIENT'S NEEDS
- ENGA GEMENT: HAVE A SOCIAL WORKER COME IN TO DISCUSS BLIGIBILITY OF MIDICAID/PLANS

+ STARTWITH THE SOCIAL QUESTIONS TO CREATE A TREATMENT PLAN. GIVEN WHAT WE KNOW ABOUT THE SOOH AND HEALTH OF THE PATIENT

#5 FILL IN THE GAPS

 USINGTHE SOON CONSIDER HOUSING AND FOOD INSECURITIES AND ASK WHAT MORE WE CAN DO TO HELP THE PATIENT

LANES **GUIDING THE SDOH CONVERSATION** WITH LEARNERS

(L) LINK THE PATIENT'S SOCIAL NEEDS TO THE VISIT OR HEALTH ISSUE

(A) ASSESS THE PATIENT'S KNOWLEDGE OF SOCIAL NEED AND IMPACT ON HEALTH

(N) NORMALIZE THE SOCIAL NEED BY PROVIDING COMMUNITY CONTEXT AND RELATED STATS

(E) EDUCATE THE PATIENT ON THE CONNECTION TO HEALTH (S) SHARE INFORMATION ON RESOURCES

REFERENCES

acace, F. Application of one Minute Preceptor to Teaching the Social Determinants of Health SCIM FORUM, V.45 no.4.2020

Fair, M. Hourcan Academic Medical Center: & Teaching Hospitals Address the Social Determinants of Health, Academi c Medicine, Vol. 91, n.o.5, March 2016

Greater New York Hospital Association, Training Primary Care Residents on Social Determinants of Health p.g. 26, 2017





Telehealth Visit: Tips for "Web-Side" Manner



WITH THE EXPONENTIAL CROWTH OF TELENEALTH, IT IS VITAL THAT HEALTHCARE PROFESSIONALS COLICATE ON THE CTIQUETTE AND PREPARATION FOR TELEMEALTH ENCOUNTERS



DRESS THE PART

Clothing choices that may not impact an in-person encounter can greatly affect the quality of a telehealth visit

- + learners should be taught to consider clothing color, patterns, and jewelry selection
- Wear a lab-cost when appropriate . Make sure your name and title is visible on the camera.

ELIMINATE DISTRACTIONS

Check the environment for possible distractors prior to the tolehealth visit

Minimize fidgeting

New

- . Mute microphone until the encounter begins
- + Inform patients of any distractors that cannot be
- . Avoid side conversations/testing during encounters
- Check wi-fi signal/bechnology
- · Close all other applications, which can slow your
- Be sensitive to your background images/noise



ENSURE A PRIVATE AND SECURE AREA FOR THE VIRTUAL VISIT

Privacy becomes an even bigger concern when the patient is unable to visually see that the environment is

- Direct learners to inform patients that the equipment being used is HIPAA secure
- Learners must tell the patient that the visit is secure
- Both provider and patient should introduce all Individuals present on their side to determine if it is acceptable for them to be present.

IMPORTANCE OF NONVERBAL CUES

Nonverbal case are important in projecting warmth, interest and concern thus enhancing the connection with patients

- . Direct learners to center themselves on the screen
- . Remind learners to lean in/nod & purposefully use their facial expressions
- + Haintain eye contact and/or explain if there is a need to look away
- If the camera is not positioned to focus on the provider or petient it can appear as a disinterest.
- + Direct learners to be aware of their own expressions; A smile on camers, for example does not appear as large as in person



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VERBAL COMMUNICATION

Timing and packing of a tolohealth visit is as important, if not more, then a traditional visit

- Start the visit with small talk to break the ice, express gratitude
- Convey empathic understanding of the patient's
- Learners should be in tune to the tone of their voice. Goal is to sound confident, warm and interested!
- . Use partnership statements to promote collaboration
- + Be clear about next steps
 - + Verify patient's understanding
 - . Let the patient and the call first

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TELEHEALTH VISIT: THE 5 MICROSKILLS TO PRECEPT

#1 FRAME THE SESSION

- . WHAT IS YOUR PRIOR EXPERIENCE WITH TELEMEALTH?
- . WHAT DO YOU KNOW ABOUT THE PATIENT (PRIOR TO THE CAUD?
- HOW WILL YOU OBTAIN CONSENT FOR THE VISIT?
- . HOW WILL YOU CONDUCT THE INTERVIEW & FOCUS ON THE CHIEF CONCERN (CC)?
- HOW WILL YOU GATHER PATIENT HISTORY?
- . HOW WILL YOU ASSESS PHYSICAL EXAM (PE), AS NEEDED?



#2 PROBE POST TELEHEALTH VISIT

- WHAT WAS YOUR IMPRESSION OF THE ENCOUNTER?
- UNDERSTANDING OF CC, INCLUDING HPI
- OBJECTIVE DATA: DIRECT OBSERVATION, VITALS, PE
- . WHAT IS YOUR ASSESSMENT & PLAN?
- . DO WE NEED TO SCHEDULE A FOLLOW-UP VISIT?

#3 TEACH

- . IDENTIFY COMMUNICATION & CLINICAL SKILLS TEACHING POINTS
- ADDRESS SPECIFICALLY TELEHEALTH COMMUNICATION SKILLS APPLIED TO THE ENCOUNTER (VERBAL & NONVERBAL)
- . CONSIDER ASKING THE STUDENT TO PRACTICE TEACH BACK FOR A FOLLOW-UP VISIT



#4 REINFORCE BEHAVIORS OBSERVED

- . ASK THE LEARNER WHAT WENT WELL
- . TELL YOUR OSSERVATIONS (COMMUNICATION & CUINICALD
- . ASK THE LEARNER WHAT THEY WANT TO DO DIFFERENTLY
- PROVIDE ENCOURAGEMENT

#5 FOCUS THE LEARNER TO SELF-IDENTIFY GAPS

- KNOWLEDGE SKILLS
- COMMUNICATION (VERBAL/NONVERBAL)
- HISTORY
- PHYSICAL EXAM
- . ASSESSMENT & PLAN

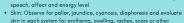


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TEACHING THE PHYSICAL EXAM FOR TELEHEALTH VISITS

*GAIN CONSENT BY ASKING PERMISSION TO PERFORM THE TELEMEDICINE PE AND PARTNER WITH YOUR PATIENT TO ASSESS:







 Observe surrounding environment which may provide information about patient's health and social determinants of health

VITAL SIGNS AND WEIGHT

- Guide patient to measuring their pulse to evaluate for tachycardia or bradvcardia
- · Ask if the patient :
- o has a thermometer to obtain temperature
- has a BP cuff/machine at home to evaluate for hyper/hypotension o is in pain, and if so, use the pain scale to determine severity
- has a pulse eximeter or app to assess for hypoxia.
- o has a scale at home to see if there has been weight gain/loss

3 HEAD AND NECK

- Ask to view eyes and conjuctiva. Instruct the patient to bring their face closer to the screen and ask them to maneuver their eyelids checking for
- o scleral icterus
- o conjunctival injection
- o discharge
- o pallor
- o hemorrhage
- . To view the inside of the patient's mouth ask them to shine a light and say "Ahh". Assess for:
- health of dentition
- o oral ulcers
- o tonsillar exudates
- o mucosal pallor
- o moist or dry mucos membranes · Ask to view neck to assess for:
- accessory muscle use
- o gross/severe JVD
- o obvious goiters asymmetries

4 CHEST

- · Inspect for work of breathing, body habitus and asymmetry
- · Ask the patient to press over areas of the chest to localize tenden elicit for pain

5 ABDOMEN

- · Inspect for contour, distention and asymmetry
- . Ask the patient to press on their abdomen to localize tenderness

MUSCULOSKELETAL

- Inspect for deformities and asymmetry
- Ask the patient to demonstrate range of motion of joints, comparing side to side, identify restriction and pain
- Ask patient to press area of interest to localize tenderness and/or identify point tenderness

NEUROLOGIC EXAM

- · Assess level of consciousness, affect, speech and thought process as part of general appearrance while conducting the interview
- · Ask the patient to follow simple commands to assess a few cranial nerves (moves eyes while keeping head still, smile, stick out tounge)
- · Have the patient walk across room normally, tandem, on heel and toes
- · Assess for gross motor or sensory deficits · Assess cognitive function with tests such as the MMSE

LOWER EXTREMITY

- · Ask to view lower extremity for skin changes such as redness, rashes, dryness, bruising and edema
- · Ask the patient if they can demonstrate bearing weight
- Ask the patient to press for tenderness and/or pitting edema



































- 1. Bing-You RG, Sproul MS. Medical students' perceptions of themselves and residents as teachers, Medical Teacher. 14 (1992) 133–138. https://doi.org/10.3109/01421599209079479
- 1. Bree KK, Whicker SA, Fromme HB, Paik S, Greenberg L. Residents-as-Teachers Publications: What Can Programs Learn From the Literature When Starting a New or Refining an Established Curriculum?, J Grad Med Educ. 6 (2014) 237–48. https://doi.org/10.4300/JGME-D-13-00308.1
- Seely AJE, Pelletier MP, Snell LS, Trudel JL. Do surgical residents rated as better teachers perform better on in-training examinations?11An abstract of this work was presented at the 18th Annual Meeting of the Association for Surgical Education Vancouver, British Columbia, April 24, 1998., The American Journal of Surgery. 177 (1999) 33–37.
 https://doi.org/10.1016/s0002-9610(98)00306-7
- 1. Hill A, Srinivasa S, Hawken SJ, Barrow M, Farrell SE, Hattie J, Yu TC. Impact of a Resident-as-Teacher Workshop on Teaching Behavior of Interns and Learning Outcomes of Medical Students., J Grad Med Educ. 4 (2012) 34–41. https://doi.org/10.4300/JGME-D-11-00062.1
- 1. Achkar MA, Hanauer M, Morrison E, Davies MK, Oh R. Changing trends in residents-as-teachers across graduate medical education, Advances in Medical Education and Practice. Volume 8 (2017) 299–306. https://doi.org/10.2147/amep.s127007
- 1. Montacute T, Chan TV, Chen YG, Schillinger E, Lin S. Qualities of Resident Teachers Valued by Medical Students., Fam Med. 48 (2016) 381–4. https://pdfs.semanticscholar.org/d383/e25f07c82d3917bac7494c852d24d4f7cc98.pdf