Introduction to Just in Time Teaching (JiTT) Infographics

Using technology to enhance professional development

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Northwell Health
The largest integrated health system New York State

19 Hospitals
750+ Ambulatory facilities

~2,000 trainees and fellows in 120 programs

**KEY FACTS**

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

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

Three specialty care hospitals
- Cohen Children’s Medical Center
- South Oak’s Hospital
- Zucker Hillside Hospital

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

Strategic alliances
- CASA Columbia, NY
- Cold Spring Harbor Laboratory, NY
- Epworth HealthCare, Richmond, Australia
- Karolinska Institute
- One Brooklyn Health
- OPKO Health BioReference Laboratories
- Rothman Institute
- University of Notre Dame
- Western Connecticut Health Network
- Yale New Haven Health
A newly designed, technology-assisted resident and faculty development program, Just in Time Teaching (JiTT) Tools, content, logistics and outcomes.

**Explain**

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

**Engage**

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

Better Medical Education

Satisfaction with role
Professional identity formation

Improvement of
Quality of Care

Medically  Productivity  Social
A practical teaching approach that is readily integrated for trainees & faculty to be used in their daily clinical teaching.

**INTRODUCTION**

**Just in Time Teaching (JiTT) Infographic APP**

A practical teaching approach that is readily integrated for trainees & faculty to be used in their daily clinical teaching.
Providing faculty and trainees with "teaching tips" via email or text message that contain evidence based knowledge just in time for learners to join the clinical team.

**GOAL**

- **Utilize JITT Tools**
  In clinical post graduate training programs with trainees and faculty

- **Recognition**
  Clinical teams will recognize JITT Tools as a learning resource for teaching in a busy clinical environment

- **Enhance the overall quality of learning environments**
  for junior trainees and students, as well increased confidence & skills for trainees and faculty.
NEEDS ASSESSMENT

**SELECT**
Select for each graduate program a trainee & faculty champion for ongoing collaboration & to assess program culture.

**IDENTIFY**
Identify specific characteristics trainees believe contribute to successful clinical teaching in their specialty.

**INTEGRATE**
Select trainees & faculty from clinical specialties who interact with learners during clinical learning years.

**ENGAGE**
Determine if electronically distributed infographics promote education, enhance confidence, and positively influence learning environments.

**MEASURE**
Quantitative and qualitative feedback to determine short- and long-term impact of infographics as a JITT tool.
SELECTED PROGRAMS

NEUROLOGY
Including Physical medicine and rehabilitation (PM&R)

INTERNAL MEDICINE

OB/GYN

PSYCHIATRY

SURGERY
Includes Neurosurgery and Vascular Surgery

OTHER
Includes Family and Emergency Medicine
STEPS TO IMPLEMENTATION

STEP 01: CREATE
A template for your evidence-based teaching tips

STEP 02: UPLOAD
A distribution list for subscribers

STEP 03: SELECT DATE & TIME
For distribution

STEP 04: DELIVER MATERIALS
Via email/text before the start of the clinical sessions

Social Media Modalities to deliver material
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

https://www.canva.com/
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

REVIEW WILL HELP GUIDE THE STUDENT TO PERFORM A COMPLETE INTERVIEW

- HPI/CHIEF COMPLAINT
  Include 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/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, B12

IN THE STUDENT COMPLETES THE PRESENTATION, USE FEEDBACK ON ANY AREAS THAT ARE MISSING OR DEFICIENT
Trainee Engagement (%) by Clinical Specialty per week

Data collected for cycle 6 was collected between August until October 2020

N = 553 Trainees were sent JITT infographics via email

70.5 % of all clinical specialty trainees opened 50% or more JITT infographics sent.

Emergency Medicine

Family Medicine

General Surgery

Internal Medicine

Neuro / PM&R

OB/GYN

Pediatrics

Psychiatry

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Psychiatry
Faculty Engagement (%) by Clinical Specialty per week

Data collected for cycle 6 was collected between August until October 2020

N = 404

Trainees were sent JITT infographics via email of all clinical specialty trainees opened 50% or more JITT Infographics sent.

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**Emergency Medicine**

- Week 1: 83.3%
- Week 2: 83.9%
- Week 3: 66.7%
- Week 4: 75.0%

**Family Medicine**

- Week 1: 100.0%
- Week 2: 100.0%
- Week 3: 77.4%

**General Surgery**

- Week 1: 65.2%
- Week 2: 60.9%
- Week 3: 80.0%

**Internal Medicine**

- Week 1: 100.0%
- Week 2: 100.0%
- Week 3: 80.0%

**Neuro / PM&R**

- Week 1: 84.6%
- Week 2: 53.8%
- Week 3: 28.2%

**OB/GYN**

- Week 1: 66.7%
- Week 2: 60.7%
- Week 3: 33.3%

**Pediatrics**

- Week 1: 56.0%
- Week 2: 64.0%
- Week 3: 36.0%

**Psychiatry**

- Week 1: 52.5%
- Week 2: 50.0%
- Week 3: 32.4%

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**Other Information**

- Faculty Engagement (%) by Clinical Specialty per week
- Data collected for cycle 6 was collected between August until October 2020
- N = 404
- Trainees were sent JITT infographics via email
- of all clinical specialty trainees opened 50% or more JITT Infographics sent.

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**Trainee Distribution**

- n (SS) = 12
- n (SIUH) = 62
- n (Phelps) = 9
- n (NSLIJ) = 5
- n (LHH) = 23
- n (Neuro) = 13
- n (PM&R) = 12
- n (ZHH) = 40
- n (CCMC) = 25
- n (LHH) = 10
New JiTTs

Telehealth Visit: Tips for 'Web-Side' Manner

<table>
<thead>
<tr>
<th>DRESS THE PART</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing choices that may not impact in-person encounter may affect the telehealth visit</td>
</tr>
<tr>
<td>- Learners should be taught to consider clothing color, patterns, and jewelry selection</td>
</tr>
<tr>
<td>- Wear a lab coat when appropriate</td>
</tr>
<tr>
<td>- Record your name and title in visible on the screen</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>ELIMINATE DISTRACTIONS</th>
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<tbody>
<tr>
<td>Check the environment for possible distractions prior to the telehealth visit</td>
</tr>
<tr>
<td>- Minimize lighting</td>
</tr>
<tr>
<td>- Reduce noise</td>
</tr>
<tr>
<td>- Remove distracting objects from the computer screen</td>
</tr>
<tr>
<td>- Close all other applications, which can slow your connection</td>
</tr>
<tr>
<td>- Ask about your background/instructions</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>ENSURE A PRIVATE AND SECURE AREA FOR THE VISIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privacy becomes even bigger concern when the patient is unable to visually see that the encounter is secure</td>
</tr>
<tr>
<td>- Direct learners to inform patients that the equipment being used is HIPAA secure</td>
</tr>
<tr>
<td>- Ensure learners tell the patient that the visit is secure</td>
</tr>
<tr>
<td>- Monitor patient and instruct close supervision</td>
</tr>
<tr>
<td>- Inform individuals present on their ability to determine if it is acceptable for them to be present</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>IMPORTANCE OF NONVERBAL CUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonverbal cues are important in projecting warmth, interest, and concern than establishing the connection with patients</td>
</tr>
<tr>
<td>- Schooling to convey emotions on the screen</td>
</tr>
<tr>
<td>- Remind learners to learn/leash appropriately use their facial expressions</td>
</tr>
<tr>
<td>- Maintain eye contact and/or explain if there is a need to look away</td>
</tr>
<tr>
<td>- If the camera is not positioned to focus on the provider or patient it can appear as a distortion</td>
</tr>
<tr>
<td>- Direct learners to be aware of their nonverbal expressions</td>
</tr>
<tr>
<td>- Smile on camera, for example does not appear as large as in person</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VERBAL COMMUNICATION</th>
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<tbody>
<tr>
<td>Timing and pacing of telehealth visit is as important, if not more, than a traditional visit</td>
</tr>
<tr>
<td>- Start the skill with small talk to break the ice/express gratitude</td>
</tr>
<tr>
<td>- Convey acuphonic understanding of the patient’s concern</td>
</tr>
<tr>
<td>- Learners should be tuned to the tone of their voice</td>
</tr>
<tr>
<td>- Goal is to sound confident, warm, and interested</td>
</tr>
<tr>
<td>- Use partnership statements to promote collaboration</td>
</tr>
<tr>
<td>- Be clear about next steps</td>
</tr>
<tr>
<td>- Verify patient’s understanding</td>
</tr>
<tr>
<td>- Set the patient and the call first</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>#1 FRAME THE SESSION</th>
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</thead>
<tbody>
<tr>
<td>WHAT IS YOUR PRIOR EXPERIENCE WITH TELEHEALTH?</td>
</tr>
<tr>
<td>WHAT DO YOU KNOW ABOUT THE PATIENT PRIOR TO THE CALL?</td>
</tr>
<tr>
<td>HOW WILL YOU OBTAIN CONSENT FOR THE VISIT?</td>
</tr>
<tr>
<td>HOW WILL YOU CONDUCT THE INTERVIEW &amp; FOCUS ON THE CHIEF CONCERN (CC)?</td>
</tr>
<tr>
<td>HOW WILL YOU GATHER PATIENT HISTORY?</td>
</tr>
<tr>
<td>HOW WILL YOU ASSESS PHYSICAL EXAM (PE), AS NEEDED?</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>#2 PROBE PRE-TELEHEALTH VISIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHAT WAS YOUR IMPRESSION OF THE ENCOUNTER?</td>
</tr>
<tr>
<td>UNDERSTANDING OF CC, INCLUDING HPI</td>
</tr>
<tr>
<td>OBJECTIVE DATA, DIRECT OBSERVATION, VITALS, COD?</td>
</tr>
<tr>
<td>WHAT IS YOUR ASSESSMENT &amp; PLAN?</td>
</tr>
<tr>
<td>WILL YOU NEED TO SCHEDULE A FOLLOW-UP VISIT?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#3 TEACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDENTITY COMMUNICATION &amp; CLINICAL SKILLS</td>
</tr>
<tr>
<td>TEACHING POINTS</td>
</tr>
<tr>
<td>ADDRESS SPECIFICALLY TELEHEALTH COMMUNICATION SKILLS APPLIED TO THE ENCOUNTER (VERBAL &amp; NONVERBAL)</td>
</tr>
<tr>
<td>CONSIDER ASKING THE STUDENT TO PRACTICE TEACH BACK FOR A FOLLOW-UP VISIT</td>
</tr>
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<thead>
<tr>
<th>#4 REINFORCE BEHAVIORS OBSERVED</th>
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<tbody>
<tr>
<td>ASK THE LEARNER WHAT THEY WANT TO DIFFERENT</td>
</tr>
<tr>
<td>TELL THEM YOUR OBSERVATIONS (COMMUNICATION &amp; CLINICAL)</td>
</tr>
<tr>
<td>ASK THE LEARNER WHAT THEY WANT TO DO DIFFERENT</td>
</tr>
<tr>
<td>PROVIDE ENCOURAGEMENT</td>
</tr>
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<table>
<thead>
<tr>
<th>#5 FOCUS THE LEARNER TO SELF-IDENTIFY GAPS</th>
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<tbody>
<tr>
<td>KNOWLEDGE SKILLS</td>
</tr>
<tr>
<td>COMMUNICATION (VERBAL/NONVERBAL)</td>
</tr>
<tr>
<td>HISTORY</td>
</tr>
<tr>
<td>PHYSICAL EXAM</td>
</tr>
<tr>
<td>ASSESSMENT &amp; PLAN</td>
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**TEACHING THE PHYSICAL EXAM FOR TELEHEALTH VISITS**

*Gain consent by asking permission to perform the telene@scope and partner with your patient to assess:*

<table>
<thead>
<tr>
<th>1 GENERAL APPEARANCE</th>
</tr>
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<tbody>
<tr>
<td>Hair</td>
</tr>
<tr>
<td>Head</td>
</tr>
<tr>
<td>Neck</td>
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</tbody>
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<table>
<thead>
<tr>
<th>2 VITAL SIGNS AND WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure (BP)</td>
</tr>
<tr>
<td>Respiratory rate (RR)</td>
</tr>
<tr>
<td>Oxygen saturation (SpO2)</td>
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<thead>
<tr>
<th>3 HEAD AND NECK</th>
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<tbody>
<tr>
<td>- Ask to show and interpret, instead the patient to bring their face closer to the screen and ask them to move their head looking for:</td>
</tr>
<tr>
<td>- Orbital pain</td>
</tr>
<tr>
<td>- Keratitis (light sensitivity)</td>
</tr>
<tr>
<td>- Swelling, redness, tenderness</td>
</tr>
<tr>
<td>- Ask to nod next to assess for:</td>
</tr>
<tr>
<td>- Neck mobility</td>
</tr>
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<thead>
<tr>
<th>4 CHEST</th>
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<tbody>
<tr>
<td>- Ask test for and breathing, look, and palpation</td>
</tr>
<tr>
<td>- Ask the patient is aware of the chest to localize tenderness for pain</td>
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<thead>
<tr>
<th>5 ABDOMEN</th>
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<tbody>
<tr>
<td>- Ask for tenderness, distention, and location</td>
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<tr>
<th>6 MUSCULOSKELETAL</th>
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<tbody>
<tr>
<td>- Ask for tenderness, distention, and location</td>
</tr>
<tr>
<td>- Ask patient to show a tender at local tenderness and/or identify pain</td>
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<thead>
<tr>
<th>7 NEUROLOGIC EXAM</th>
</tr>
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<tbody>
<tr>
<td>- Ask patient to show flexion of a muscle, to stand up and down</td>
</tr>
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<td>- Ask patient to show flexion of a muscle, to stand up and down</td>
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<tr>
<th>8 LOWER EXTREMITY</th>
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<tbody>
<tr>
<td>- Ask to show lower extremity for signs of weakness, tone, edema, numbness, sensation</td>
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*Use as a guide, only perform components relevant to your patient's concerns*
Just in Time Teaching Infographic
Tools Transition to App

https://testflight.apple.com/join/hrQZg7sv
JiTT Categories

- Ambulatory Medicine
- Classroom Teaching
- Ethics Teaching
- Family Medicine
- Emergency Medicine
- Foundational Teaching Tips
- Internal Medicine
- Neurology
- OB/GYN
- Pediatrics
- Physical Medicine & Rehabilitation
- Psychiatry
- Social Justice
- Surgery
Bedside Teaching A Directed Observation Technique

- 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)
- Psychological Safety in the Clinical Environment
- Questioning as an Effective Teaching Skill
- Socratic Method Technique as a Teaching Skill
- The 5 Micro Skills: Precept with Limited Time
- Bedside Teaching A Directed Observation Technique

PRE-OBSERVATION

DISCUSS WITH THE LEARNER WHAT THEY WOULD LIKE TO LEARN FROM AN OBSERVATION

OBSERVATION

Based on what learner identifies & your knowledge of the patient, identify a directed observation learning point

PRAISE THE LEARNER BY FOCUSING ON SIGNS AND SYMPTOMS RELEVANT TO THE CHIEF COMPLAINT

DEMONSTRATION BY FACULTY OBSERVATION BY LEARNER

INTRODUCE YOURSELF AND THE LEARNER TO THE PATIENT: CLARIFY TO THE PATIENT THE LEARNER WILL BE OBSERVING THE ENCOUNTER

CONDUCT THE ENCOUNTER AND DEMONSTRATE WHAT WAS AGREED UPON
# Northwell Health

**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

2) This App is easy to use.
   - Strongly disagree
   - Disagree
   - Neither agree nor disagree
   - Agree
   - Strongly agree

3) I would recommend this App to my colleagues/peers.
   - Strongly disagree
   - Disagree
   - Neither agree nor disagree
   - Agree
   - Strongly agree

4) Comments:

```
Podcast

EXPECTATIONS AND GOALS: SET THESE WITH A LEARNER

1. INTRODUCTIONS
   - Introduce yourself and orient your learner to the learning environment (clinicians, staff, workflow, facilities)
   - Elicit information about your learner: ask your about prior experiences in this clinical setting & with this patient population

2. EXPECTATIONS & GOAL SETTING
   - Help the learner identify expectations particular for this clinical setting
   - Help the learner set goals that are specific, realistic, and timely
   - Address any questions and concerns to support an environment with psychological safety

3. WRAP UP
   - Exchange preferred contact information for ongoing communication
   - "Check to assess progress towards goals
   - "Also see "Learning Health to Prepare to Teach"

4. FOLLOW-UP

Northwell Health®
Next Steps

JITT Infographic APP Usability and Feasibility Testing
- Analyze *individual* JiTTs for relevance based on usage

Podcast: Feasibility and Usability
- Ascertain medical student feedback regarding interactions with trainees. Further insight in ways to improve

Medical Student Feedback
- Empower champions in programs, both faculty and residents as role models, to use APP
THANKS!
Any questions?
You can find me at:
- Alice Fornari EdD RDN
- E: afornari@northwell.edu
- T: (516) 633 1038
- Twitter @AFornari1

For viewing of JITT Tips
http://libguides.hofstra.edu/mededresources/teachingresources
Additional faculty development resources,
https://medicine.hofstra.edu/faculty/facdev/index.html


