Education Use Case
ACTORS

- Intern
- Residency Program Director
- Primary Care Practice Director
ACTORS

- Intern
- Residency Program Director
- Primary Care Practice Director

DATA (from which KNOWLEDGE can be computed)

- Asynchronous learning exams
- Competencies
- Entrustable Professional Activities (EPAs)
- Patient Care Data
- Personalized Learning Plan
Intern
First week on the job, assigned to the ICU

Personal Goals
• Immediate – handle ICU emergencies, appropriate handoffs
• Long-term – discern career choice
Residency Program Director
Academic Center

Personal Goals
• Ensure patient safety
• Accurate and timely assessment of learners
• Track learner progress and dynamically tailor training as learners progress
Begins ICU rotation
Week 1 Readiness Assessment:
Handoffs (EPA 8)
Week 1 Readiness Assessment: Handoffs (EPA 8)

Score: Sub-threshold
Remediation Education: Handoffs (EPA 8)

- Must complete Handoff course in QuizTime Academy
- Receives asynchronous learning content via text message/using mobile app
Returns to EPA station to remediate Handoffs EPA 8
Returns to EPA station to remediate Handoffs EPA 8

Score: Threshold
Moves through other rotations, including continuity clinic
Meanwhile data is accumulating on this learner...
DATA ACCUMULATION

- Asynchronous learning exam
- Competencies
- EPAs
- Patient notes – cases encountered
- Procedures
- Patient 30-day re-admission rate
- Preventative health screening dashboard
Residency Program Director

- Monitors intern’s progress
- Adjusts patient experiences based on
  - case exposure
  - emerging career path – primary care
Clinical Assessments

- Competency data
- EPA data
Patient Care: Physicians must consistently provide care that is compassionate, culturally competent, safe, efficient, cost sensitive, appropriate, and effective for the treatment of illness and the promotion of health. Learn more

PC1

Perform a problem-focused or complete history and physical examination as indicated, and to obtain necessary diagnostic studies, including imaging, laboratory and procedural tests.
EPA 3

Recommend and interpret common diagnostic and screening tests

Scores

Level 3c

Level 3b

Level 3a

Level 2b

Level 2a

Level 1b

Level 1a

Jan '19  Feb '19  Mar '19  Apr '19  May '19  Jun '19
EHR Data

- Patient Case Exposure
- Procedures
Welcome to VSTAR Patient Encounter Notes

You may click on the VSTAR PEN logo (top left) at any time to return to this page.

- You have 5 mentors.
- You have 5 procedures.
- You have 182 patients.
- You have 372 notes.

Progress towards VC3 objectives:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Goal</th>
<th>Current</th>
<th>Desired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Pain</td>
<td>6</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Abnormal Vaginal Bleeding and Discharge</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Abnormalities of Mood</td>
<td>16</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Altered Mental Status</td>
<td>7</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Annual Exam</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Back Pain</td>
<td>3</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>Breast Complaints</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Chest Pain</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Cough</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Dysuria and Incontinence</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Functional Decline</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Gastrointestinal Bleeding</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Headache</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Jaundice</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Obesity</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Pelvic Pain</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Rash</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Seizures</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Shock</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Shortness of Breath</td>
<td>23</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Syncope</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Trauma</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Unexplained Weight Loss</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

View complete list of VC3 learning objectives
Welcome to VSTAR Patient Encounter Notes

Concepts of cough in the assessment plan (in RED)

ASSESSMENT AND PLAN

A 38 year old female admitted to Morgan Team 1 for evaluation of enlarging right paratracheal adenopathy shown on chest x-ray with concern for sarcoidosis vs. lymphoma. Her PMH is significant for hidradenitis suppurativa, chronic leukocytosis, and iron deficiency anemia.

1. Paratracheal lymphadenopathy - This is most likely due to sarcoidosis. According to Wessendorf, et. al., there are not clinical symptoms that are specific for sarcoidosis. Robertson has fever and general weakness, but not cough and dyspnea, which can be typical symptoms. She does have radiologic signs of the disease on X-ray. Wessendorf recommends against CT follow-up unless a complicated disease course is suspected, to avoid unnecessary radiation. The key to diagnosis is noncaseating granulomas on biopsy, which can be taken via endobronchial ultrasonography-guided transbronchial needle aspiration. It is unlikely that she has lymphoma due to the lack of B symptoms. Although her white count is elevated, it is within the normal range of her chronic leukocytosis. Similarly, her lack of cough and night sweats do not fit with a picture of tuberculosis. Finally, she may have a reactive lymphadenopathy due to her longstanding pneumonia. However, given that her pneumonia symptoms have now resolved, this is unlikely.
- Bronchoscopy with endobronchial ultrasonography-guided transbronchial needle aspiration biopsy.

2. Hidradenitis suppurativa - The flare-up is most likely due to being off of her regular immunosuppressants during her pneumonia. She cannot restart stelara until the lymphadenopathy is understood.
- Consult plastic surgery
- Continue home skin medications

3. Hypertension - Stable. Continue home carvedilol and HCTZ.
Health System Data

Screening procedures in primary care clinic
<table>
<thead>
<tr>
<th>Measure</th>
<th>Compliant Patients</th>
<th>Eligible Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast Cancer Screening</td>
<td>74</td>
<td>121</td>
<td>61.2%</td>
</tr>
<tr>
<td>Cervical Cancer Screening</td>
<td>58</td>
<td>140</td>
<td>41.4%</td>
</tr>
<tr>
<td>Colorectal Cancer Screening</td>
<td>153</td>
<td>269</td>
<td>56.9%</td>
</tr>
<tr>
<td>Diabetes A1c Testing</td>
<td>73</td>
<td>75</td>
<td>95.0%</td>
</tr>
<tr>
<td>Diabetes Eye Exam</td>
<td>27</td>
<td>75</td>
<td>36.0%</td>
</tr>
<tr>
<td>Diabetes Nephropathy</td>
<td>68</td>
<td>76</td>
<td>85.4%</td>
</tr>
<tr>
<td>High Risk Medications</td>
<td>135</td>
<td>158</td>
<td>85.4%</td>
</tr>
<tr>
<td>Influenza Immunization</td>
<td>175</td>
<td>184</td>
<td>95.0%</td>
</tr>
<tr>
<td>Adult BMI Assessment</td>
<td>391</td>
<td>522</td>
<td>74.9%</td>
</tr>
<tr>
<td>Diabetes A1c &lt;9</td>
<td>55</td>
<td>73</td>
<td>75.3%</td>
</tr>
<tr>
<td>Pneumococcal Vaccination</td>
<td>157</td>
<td>170</td>
<td>75.3%</td>
</tr>
</tbody>
</table>
PORTFOLIO DATA ACCUMULATION

- Asynchronous learning exam
- Competencies
- EPAs

- Patient notes – cases encountered
- Procedures
- Patient 30-day re-admission rate
- Preventative health screening dashboard
PORTFOLIO DATA ACCUMULATION

Learner-Level Data

- Asynchronous learning exam
- Competencies
- EPAs
- Patient notes – cases encountered
- Procedures
- Patient 30-day re-admission rate
- Preventative health screening dashboard
PORTFOLIO DATA ACCUMULATION

- Asynchronous learning exam
- Competencies
- EPAs

- Patient notes – cases encountered
- Procedures
- Patient 30-day re-admission rate
- Preventative health screening dashboard
PORTFOLIO COACHING

Coach + learner meet regularly to assess progress and set goals
PORTFOLIO COACHING

Coach + learner meet regularly to assess progress and set goals

Learner-Level Data

Clinical Outcome Data

Strengths/weaknesses and Career Plans

Personal Learning Plan
Knowledge Support Tool

- Learner-Level Data
- Clinical Outcome Data
- Strengths/weaknesses and Career Plans
- Personal Learning Plan
Primary Care Practice Director

Personal Goals
  • Immediate – make a good hire
  • Long-term – build practice of competent providers
Is this resident ready for our practice?

Knowledge Support Tool

- Learner-Level Data
- Clinical Outcome Data
- Strengths/weaknesses and Career Plans
- Personal Learning Plan