

Supplemental Digital Appendix 1

Curricular Elements in the Transition-to-Clerkship Course (TTCC), Virginia Commonwealth University School of Medicine, 2014-2016

| Curriculum element | Title | Instructional method | Duration |
|----------------------------|---|---------------------------------------|------------|
| Preparation for clerkships | Policies and Procedures | Didactic | 2 hours |
| | Clerkship Director Discussion | Panel Discussion | 1 hour |
| | Introductory Ward Skills* | Small Group Workshop | 2 hours |
| | Introduction to Operating Room | Video | 30 minutes |
| | Succeeding in Clerkships* | Student Panel Discussion | 1 hour |
| | Remote Access | Interactive Didactic | 1 hour |
| | Advanced Ward Skills* | Small Group Workshop | 2 hours |
| | Hospital Tour | Student-led tour | 1.5 hours |
| | Electronic Health Record | Interactive Didactic | 1 hour |
| | Use of Interpreter Services* | Didactic | 1 hour |
| | Learning Climate Workshop* | Workshop | 2 hours |
| | Ward Simulation (including pre-brief and debrief)** | Standardized Patient-Based Simulation | 3 hours |
| | Introduction to Veteran's Affairs Hospital | Didactic | 45 minutes |
| | Introduction to Clinical Radiology* | Interactive Didactic | 1 hour |
| | Electronic Health Record Training | Workshop | 2 hours |
| | Succeeding on Shelf Examinations | Interactive Didactic | 1 hour |
| | Feedback, Evaluation, and Grading | Interactive Didactic | 2 hours |
| Student affairs | Career Planning During Clerkships | Didactic | 1.5 hours |
| | Financial Aid | Didactic | 1 hour |
| Skill-based training | Scrubbing | Hands-on training | 45 minutes |
| | Intramuscular Injections | Simulation | 45 minutes |
| | Basic Life Support | Hands-on training, certification | 4 hours |
| | Physical Examination Review Session* | Hands-on training | 1 hour |
| Hospital policy/logistics | Mandatory Drug Testing* | n/a | 30 minutes |
| | Pagers | n/a | 30 minutes |
| | TB Testing/Fit Testing | n/a | 30 minutes |
| Longitudinal curriculum | Physician, Patient and Society* | Interactive Didactic | 2 hours |
| | Population Health and Evidence-Based Medicine* | Interactive Didactic | 2 hours |

Supplemental digital content for Ryan MS, Feldman M, Bodamer C, Browning J, Brock E, Grossman C. Closing the gap between preclinical and clinical training: Impact of a transition-to-clerkship course on medical students' clerkship performance. Acad Med. 2019.

| Other | Program Evaluation Surveys* | Survey | 30 minutes |
|-------------------------|-----------------------------|--------|------------|
| * Introduced 2014-2015 | | | |
| ** Introduced 2015-2016 | | | |

Supplemental Digital Appendix 2

Summary of 4 Cases in the Ward Simulation Included in the Transition-to-Clerkship Course (TTCC), Virginia Commonwealth University School of Medicine, 2015-2016

| Stage and setting | Objectives and targeted Core Entrustable Professional Activities (EPAs) | Case | | | |
|---|---|--|---|--|--|
| | | Tubo-ovarian abscess | Crohn's flare | Pulmonary embolism | Congestive heart failure (CHF) exacerbation |
| Stage 1 Emergency department | 1. Perform a focused history and physical (EPA 1) | Patient presents for evaluation of abdominal pain | Patient presents for evaluation of abdominal pain | Patient presents for evaluation of chest pain/dyspnea | Patient presents for evaluation of chest pain/dyspnea |
| | 2. Formulate a differential diagnosis (EPA 2) | | | | |
| | 3. Determine an initial management plan (EPA 3, EPA 4) | | | | |
| | 4. Admit a patient to floor (EPA 4) | | | | |
| | 5. Document a clinical encounter (EPA 5) | | | | |
| | 6. Provide an oral presentation of a clinical encounter (EPA 6) | | | | |
| | 7. Collaborate with team members (EPA 9) | | | | |
| Stage 2 Inpatient floor, admission intake | 1. Perform a focused history and physical (EPA 1) | Patient is given preliminary diagnosis of tubo-ovarian abscess | Patient is given preliminary diagnosis of Crohn's disease flare | Patient is given preliminary diagnosis of pulmonary embolism | Patient is given preliminary diagnosis of CHF exacerbation |
| | 2. Recommend appropriate diagnostic tests (EPA 3) | | | | |
| | 3. Perform medication reconciliation (EPA 4) | | | | |

| | | | | | |
|-------------------------------------|---|--|--|--|--|
| | 4. Draft admission orders (EPA 4) | | | | |
| | 5. Discuss plan with patient (EPA 4) | | | | |
| | 6. Collaborate with team members (EPA 9) | | | | |
| Stage 3 | 1. Perform a focused history and physical (EPA 1) | Patient develops ruptured tubo-ovarian abscess, surgical emergency | Patient develops acute abdomen, surgical emergency | Patient develops massive pulmonary embolism, now with hypotension and hypoxia | Patient develops acute chest pain, evolving myocardial infarction |
| Inpatient floor, decompensation | 2. Identify a decompensating patient (EPA 10) | | | | |
| | 3. Call for help (EPA 10) | | | | |
| | 4. Enter orders (EPA 4) | | | | |
| | 5. Develop a tentative management plan (EPA 3) | | | | |
| | 6. Call a consult (EPA 6) | | | | |
| | 7. Perform a handover (EPA 8) | | | | |
| Stage 4 | 1. Perform a focused history and physical (EPA 1) | Patient returns and recovers from surgery, nears medical readiness for discharge | Patient returns and recovers from surgery, nears medical readiness for discharge | Patient returns and recovers from the ICU, nears medical readiness for discharge | Patient returns and recovers from the ICU, nears medical readiness for discharge |
| Inpatient floor, discharge planning | 2. Enter orders (EPA 4) | | | | |
| | 3. Perform a discharge medical reconciliation (EPA 4) | | | | |
| | 4. Determine medical readiness for discharge | | | | |
| | 5. Identify systems-issues for discharge | | | | |
| | 6. Provide disease-specific counseling | | | | |

Supplemental Digital Appendix 3

Post-Simulation Survey Instrument to Gauge Students' Reactions to the Ward Simulation Included in the Transition-to-Clerkship Course (TTCC), Virginia Commonwealth University School of Medicine, 2015-2016

| Question | Please respond to each prompt by selecting a response from 1-4: (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| The simulations helped me understand aspects of inpatient care that I hadn't previously considered. | 1 | 2 | 3 | 4 |
| The level of difficulty of the scenarios was appropriate for my level of training. | 1 | 2 | 3 | 4 |
| The faculty facilitator was organized in his/her approach to the debriefings. | 1 | 2 | 3 | 4 |
| The debrief engaged team members by eliciting their input. | 1 | 2 | 3 | 4 |
| This activity will help me succeed during M3. | 1 | 2 | 3 | 4 |
| The simulations challenged my medical knowledge. | 1 | 2 | 3 | 4 |
| I had enough cognitive tools to help me manage the tasks assigned. | 1 | 2 | 3 | 4 |
| The use of simulation enhanced my learning. | 1 | 2 | 3 | 4 |
| I enjoyed participating in this activity. | 1 | 2 | 3 | 4 |
| The standardized patient performed his/her role believably. | 1 | 2 | 3 | 4 |
| When faced with a situation in which my knowledge is inadequate, I can access resources to help me function. | 1 | 2 | 3 | 4 |
| When faced with an acutely ill patient, I know how to access appropriate resources. | 1 | 2 | 3 | 4 |
| I have the knowledge, ability, and resources to be a contributing member of the healthcare team during my clerkships. | 1 | 2 | 3 | 4 |
| Team members used feedback about individual or team performance to help the team be more effective. | 1 | 2 | 3 | 4 |
| When team members had different opinions, each member explained his/her point of view. | 1 | 2 | 3 | 4 |
| Team members encouraged one another to express their opinions and thoughts. | 1 | 2 | 3 | 4 |

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| | | | | |
|---|---|---|---|---|
| This activity improved my ability to work in a healthcare team. | 1 | 2 | 3 | 4 |
| Please provide any additional comments | | | | |

Supplemental Digital Appendix 4

Post-Course Survey Instrument to Gauge Students' Reactions to the Transition-to-Clerkship Course (TTCC), Virginia Commonwealth University School of Medicine, 2015-2016

M3 Orientation Feedback

Week 1 Sessions

| Please rate each of the sessions you attended on Monday | | | | | |
|---|---------|---|------------|---|--------------|
| Session | 1- Poor | 2 | 3- Average | 4 | 5- Excellent |
| Overview | | | | | |
| Policies | | | | | |
| Clerkship director panel | | | | | |
| Population health / Evidence-based medicine | | | | | |
| Introduction to the VA | | | | | |
| Financial aid | | | | | |

| Please rate each of the sessions you attended on Tuesday | | | | | |
|--|---------|---|------------|---|--------------|
| Session | 1- Poor | 2 | 3- Average | 4 | 5- Excellent |
| Cerner 101 | | | | | |
| Disaster Planning | | | | | |
| Physician, Patient and Society | | | | | |

| Please rate each of the sessions you attended on Friday | | | | | |
|---|---------|---|------------|---|--------------|
| Session | 1- Poor | 2 | 3- Average | 4 | 5- Excellent |
| Ward Skills Workshop | | | | | |
| Introduction to Radiology | | | | | |
| Simulation pre-brief | | | | | |

| Please rate each of the workshops and other activities you participated in during the week | | | | | |
|--|---------|---|------------|---|--------------|
| Session | 1- Poor | 2 | 3- Average | 4 | 5- Excellent |
| M3 "buddies" | | | | | |
| Family Medicine session | | | | | |
| Phlebotomy simulation | | | | | |
| Cerner 102 workshop | | | | | |
| Intramuscular injections | | | | | |

Week 2 Sessions

| Please rate each of the workshops and other activities you participated in during the week | | | | | |
|--|---------|---|-----------|---|--------------|
| Session | 1- Poor | 2 | 3-Average | 4 | 5- Excellent |

| | | | | | |
|-------------------------------|--|--|--|--|--|
| Ward Simulation (Small group) | | | | | |
| Computer logistics | | | | | |
| Cerner 102 workshop | | | | | |
| Intramuscular injections | | | | | |
| Ward skills II workshop | | | | | |

| Please rate each of the sessions you attended | | | | | |
|---|---------|---|------------|---|--------------|
| Session | 1- Poor | 2 | 3- Average | 4 | 5- Excellent |
| Simulation debrief | | | | | |
| Feedback and grading | | | | | |
| Succeeding on shelf exams | | | | | |
| Career planning | | | | | |
| Student clinician ceremony | | | | | |

Simulation comments: Please comment specifically on the simulation session.

General comments: Any other comments about orientation which were not addressed in the above questions?