CURRICULUM

Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency

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ABSTRACT:

Audience: This curriculum was created for emergency medicine interns to teach clinical reasoning, communication, presentation, documentation and procedural skills.

Introduction: Interns start their emergency medicine (EM) residencies with a wide range of pre-residency experiences. This heterogeneity of training prior to internship makes it difficult for faculty to ensure that residents are prepared for patient care upon starting residency training. In addition, many interns have taken time off from emergency-focused clinical care in the months before starting residency. This lapse in patient exposure may contribute to the knowledge gaps and lack of preparedness among incoming interns. At our institution, we identified the need for a comprehensive curriculum targeting these skills to prepare interns prior to their first clinical shift. To address this need we created a specific intern preparedness curriculum comprised of distinct didactic and simulation sessions that range from standardized patient *in situ* simulation to procedure-based skills laboratories.

Aims/Goals: The primary goal of this curriculum is to teach EM interns critical thinking; clinical decision making; and presentation, communication, documentation and procedural skills. The secondary goal is to identify interns who might not be performing at the expected level for potential early intervention. In addition, we wanted to ensure that all interns have achieved Level 1 milestones in the patient care, systems-based practices, and interpersonal and communication competencies.

Methods: The educational strategies used in this curriculum include a combination of pre-learning offered through Free Open Access to Medical (FOAM) education podcasts, videos, and blogs as well as pre-assigned readings, followed by didactics, procedure laboratories and an *in-situ* simulation exercise. Learners are assessed formatively, and both previously-validated and novel checklists are used to guide assessment. Sources for each checklist can be found in their respective footers. Simulation cases are available in their respective supplemental folders. Simulation cases were deployed *in situ* in a portion of the emergency department to enhance fidelity and expose learners to the workplace, patient flow, and systems dynamics.

Length of Curriculum: The curriculum is intended to be administered in three distinct sessions (Wound & Burn Day, Procedure Day, "Day in the Life"), each lasting 5-8 hours. The sessions are scheduled during the 10-day orientation period that precedes the first clinical block for our interns. In order to allow learners sufficient time to review asynchronous pre-learning material, the sessions are generally scheduled towards the end of the orientation period.

Topics: Clinical Decision making, communication skills, non-technical skills, intern orientation, procedural skills, *in situ* simulation, documentation skills.

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List of Resources:

Learner Audience:
Medical Students, Interns

Length of Curriculum:
2 weeks

Topics:
Clinical Decision making, communication skills, non-technical skills, intern orientation, procedural skills, *in situ* simulation, documentation skills.

Objectives:
At the conclusion of this curriculum learners will:

1. Demonstrate proficiency in EM procedures: oxygenation, airway management, simple and complex wound repair, burn management, escharotomy, splinting, tonometry, slit lamp, ultrasonography, central line placement, vascular access, nerve blocks.
2. Demonstrate focused history and physical examination skills on standardized patients.
3. Present clinical cases to attending faculty.
4. Develop differential diagnosis based on the history and physical obtained.
5. Document their simulated clinical encounters on an electronic medical record platform.
6. Demonstrate and develop communication skills as pertaining to both patients and consultants.
7. Incorporate formative feedback received from faculty and standardized patients into each subsequent encounter.
8. Practice clinical documentation by writing medical notes based on simulated encounters in an electronic medical record platform.

Brief introduction:
July 1st is an important date for all residencies as new interns start managing patients. Literature describes the "July phenomenon" where adverse events and medical errors increase in the month of July.[1] Although the American Association of Medical Colleges (AAMC) published core

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Entrustable Professional Activities for medical schools to use to standardize competencies for graduating students, they are not yet mandatory for all medical schools.[2] As a result there are variations amongst medical schools in how students are trained in certain skills such as communication, presentation, and clinical reasoning skills as well as procedural and medical documentation skills. In addition, multiple studies have demonstrated significant heterogeneity among EM clerkship experiences.[3–5] This heterogeneity of training prior to internship makes it difficult for faculty to ensure that residents are prepared for patient care in July. At our institution, we identified the need for a curriculum targeting these skills to prepare interns prior to their first clinical shift. To address this need, we created a specific intern preparedness curriculum comprising of several distinct didactics that range from standardized patient *in situ* simulation to procedure-based laboratories.

Problem identification, general and targeted needs assessment:

At our facility we identified a need for a curriculum that addressed clinical reasoning, presentation, communication, documentation, and procedural skills for our interns. A review of the literature reveals curricula that focus on medical knowledge and procedural components; however, few focus on teaching clinical reasoning and communication skills. To this end, we chose to create a comprehensive curriculum targeting these needs. An overview of our curriculum is depicted in figure 1.

Our learners all undergo pre-learning using a combination of free open access to medical education (FOAM) resources and traditional lectures. These didactics are supplemented with hands on procedural training in the form of a procedure day and wound and burn day. Procedures were assessed through checklists both pre-published and novel.

Finally, all learners participate in the "Day in the Life of an Intern" (DITL) *in situ* simulation which focuses on clinical decision making, presentation, and communication (specifically patient and peer-centered) skills. This session utilizes standardized patients (SP) presenting with core emergency medicine chief complaints: chest pain, shortness of breath, abdominal pain. We recommend it be executed in the emergency department but could be done in a simulation center depending on your institution's resources. Each SP has a chart created in the training version of our electronic health record (EHR) to report labs and allow the learner to write the chart and enter orders. Allowing our interns to practice clinical communication and reasoning, to obtain a history and to perform a physical, to demonstrate presentation skills, consultation communication, and documentation skills provides them the opportunity to 1) practice these skills before exposing them to patients and 2) receive direct formative feedback. This can improve their patient interactions, evaluations, and assessments which may impact patient safety. It also allows faculty to identify interns who are not yet meeting expected milestones and need to be closely monitored with respect to their data acquisition, clinical reasoning and communication skills. We utilized pre-published tools to provide formative feedback.

Goals of the curriculum:

There are two broad goals of this curriculum:

1. To prepare and assess learners in the data gathering, clinical reasoning and communication skills integral to functioning as an EM intern.
2. To achieve procedural competency in fundamental EM procedures.

Objectives of the curriculum:

At the conclusion of this curriculum learners will:

1. Demonstrate proficiency in EM procedures: oxygenation, airway management, simple and complex wound repair, burn management, escharotomy, splinting, tonometry, slit lamp, ultrasonography, central line placement, vascular access, nerve blocks.
2. Demonstrate focused history and physical examination skills on standardized patients.
3. Present clinical cases to attending faculty.
4. Develop differential diagnosis based on the history and physical obtained.
5. Document their simulated clinical encounters on an electronic medical record platform.
6. Demonstrate and develop communication skills as pertaining to both patients and consultants.
7. Incorporate formative feedback received from faculty and standardized patients into each subsequent encounter.
8. Practice clinical documentation by writing medical notes based on simulated encounters in an electronic medical record platform.

Educational Strategies:

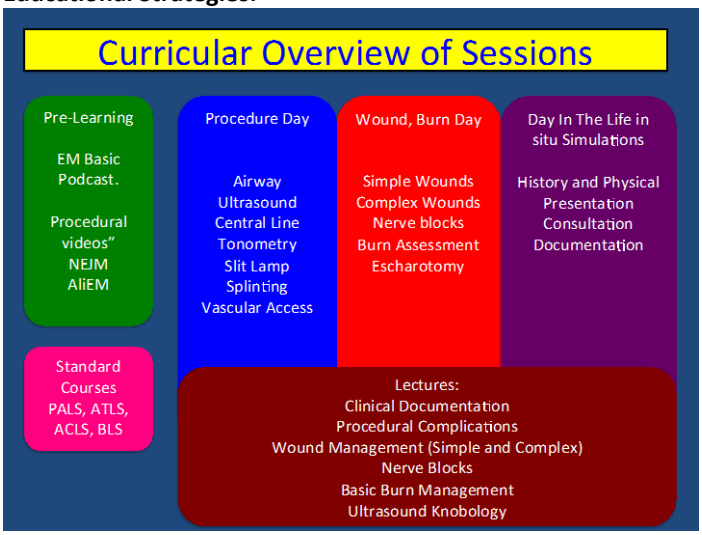

Figure 1. Broad Overview of Topics and Didactics, Intern Preparedness Curriculum.
See Curriculum Chart

Results, Evaluation and Feedback:

This curriculum has been used with a total of 36 learners over three years. Feedback on the curriculum from faculty and learners has been extremely positive. We plan to expand the clinical documentation portion of the curriculum and utilize a standard means to provide feedback on this integral skill. Thus far we have been providing formative feedback only, although we have been able to address observed deficiencies prior to the intern taking on clinical responsibilities. In addition, we have been able to document achievement of most Level 1 milestones for every intern after successful completion of these activities.

Associated Content:

The supplemental files include pre-learning assignments, lectures, assessments, checklists, handouts, faculty/standardized patient guides, and multiple session maps for the "Day in the Life" activity as well as the "Procedure Day" and "Wound & Burn Day." The titles for each document are referenced on the curriculum chart.

References/suggestions for further reading:

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WOUND & BURN DAY "Appendix A MSM Intern Wound Day.docx"						
Simple Laceration Repair	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Laceration Repair" 2. 50 minutes hands-on session	-Wound prep (cleansing, debriding) - Determining appropriate closure technique (suture, glue, hair apposition, delayed closure) -Selection of appropriate suture size -Simple laceration repair techniques	The learner will demonstrate the ability to: 1. Prepare a wound for repair 2. Select appropriate wound closure technique and material 3. Administer appropriate dose of indicated anesthetic 4. Place a simple interrupted suture 5. Educate patient on appropriate outpatient management of their wound	PGY-1	50 minutes (hands-on session) Instructors: 1 per 4 learners Faculty Guide: "Appendix C Laceration Repair Station Faculty Guide" Equipment: suture repair tray, variety of nylon sutures, synthetic or cadaver/mammal tissue for repair of simple linear laceration	Milestones: 13/1a, b, c 13/2c, d 11/1a, b Hands-on: "Appendix D Wound & Burn Assessment Tool.docx"

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Complex Laceration Repair	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Laceration Repair" 2. Didactic to review principles and management approaches around complex lacerations "Appendix E Complex Laceration Repair.pptx" 3. Hands-on session immediately following lecture	-Indications for utilization of complex laceration repair techniques -Description of complex laceration repair techniques	The learner will demonstrate the ability to: 1. Use medical terminology to clearly describe/classify a wound 2. Repair a stellate laceration 3. Repair a v-shaped laceration 4. Place a corner stitch 5. Place deep suture 6. Complete a layered repair 7. Identify a wound that requires antibiotics or tetanus prophylaxis 8. Identify wounds that should not be closed primarily 9. Demonstrate appropriate use of consultation 10. Repairs ear/nose cartilage wound	PGY-1	50 minutes (lecture) Instructors: 1 Lecture: "Appendix E Complex Laceration Repair.pptx" Equipment: Laptop/computer with projector/screen 50 minutes (hands-on session) Instructors: 1 per 4 learners Equipment: suture repair tray, variety of nylon sutures, synthetic or cadaver/mammal tissue for repair of complex lacerations	Milestones: 13/2a, b 13/3a, c, d, e 13/4b Hands-on: "Appendix D Wound & Burn Assessment Tool.docx"

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Burn Care	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "General Burn Management" 2. Didactic to review principles and management approaches to the burned patient "Appendix F Burn Mini Lecture.pptx" 3. Hands-on session immediately following lecture	-Description of burns (depth, TBSA (Total Body Surface Area) %) - Management of mild to severe burns - Indications and technique of escharotomy	The learner will demonstrate the ability to: 1. Classify a burn by depth 2. Estimate TBSA % affected by burn 3. Use Parkland formula to estimate replacement fluids 4. Select appropriate management of a burn based on its depth and location 5. Describe indication for and is able to perform an escharotomy 6. Educates patient on appropriate outpatient management of the wound	PGY-1	30 minutes (lecture) Instructors: 1 Lecture: "Appendix F Burn Mini Lecture.pptx" Equipment: Laptop/computer with projector/screen 15 minutes (hands-on session) Instructors: 1 per 4 learners Equipment: charred hot dogs, scalpels	Milestones: 13/2b, e 13/4c Hands-on: "Appendix D Wound & Burn Assessment Tool.docx"

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Regional Blocks	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Regional Anesthesia" 2. Didactic to review indications and technique of regional blocks "Appendix G Nerve Blocks.pptx" 3. Hands-on session immediately following lecture	-Indications to utilize regional block for anesthesia -Technique for variety of commonly-used regional blocks	The learner will demonstrate the ability to: 1. Recognize wounds and injuries requiring regional block 2. Identify anatomic landmarks for commonly used blocks 3. Perform a regional block on face and hand 4. Obtain informed consent for regional anesthesia	PGY-1	30 minutes (lecture) Instructors: 1 Lecture: "Appendix G Nerve Blocks.pptx" Equipment: Laptop/computer with projector/screen 45 minutes (hands-on session) Instructors: 1 per 4 learners Equipment: cadaver head, cadaver hand; 27-gauge needles; syringes; injectable liquid (e.g. saline)	Milestones: 11/2b 11/3d Hands-on: "Appendix D Wound & Burn Assessment Tool.docx"
Complications & Consent	1. Didactic lecture and group discussion "Appendix H Cmplications & Consent.pptx"	1. Common and serious complications of procedures 2. Key steps in obtaining informed consent 3. Special circumstances in obtaining consent such as pediatrics, intoxication, family disagreements	The learner will demonstrate the ability to: 1. Recognize common and serious complications of procedures, taking steps to avoid these when possible 2. Identify best practices in obtaining informed consent 3. Discuss approach to special circumstances in obtaining consent	PGY-1	30 minutes (lecture) Instructors: 1 Lecture: "Appendix H Complications & Consent.pptx" Equipment: Laptop/computer with projector/screen	Assessment performed through observation and participation in group discussion
PROCEDURE DAY "Appendix I MSM Intern Procedure Day.docx"						

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Orientation & Introduction to Charting	1. Didactic "Appendix J Chart Smart Medical Legal Communication Coding.pptx" 2. Group discussion	1. Orientation to structure of Procedure Day (review of MSM) 2. Charting basics for interns prior to starting clinical care in the ED	The learner will demonstrate the ability to: 1. List reasons for learning and performing proper ED documentation 2. Explain differences between documentation in ED vs other hospital arenas 3. Describe components of a good ED chart 4. Discuss basics of Evaluation/Management codes in the ED	PGY1	60 minutes (lecture) Instructors: 1 Lecture: "Appendix J Chart Smart Medical Legal Communication Coding.pptx" Equipment: Laptop/computer with projector/screen	Milestones: 18/1a 18/2a Faculty review of charts from Day in The Life Activity
Central Venous Catheter	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "CVC Placement" 2. Hands-on session immediately following lecture	-Indications and contraindications for central line placement - Technique for central line placement in internal jugular or subclavian - Sterile technique and preparation	The learner will demonstrate the ability to: 1. Recognize indications and contraindications for central line placement 2. Maintain sterile technique and field during procedure 3. Demonstrate technique for placing IJ and SC central line 4. Obtain informed consent for procedure	PGY-1	120 minutes (hands-on session) Instructors: 2 per 6 learners Equipment: central line task trainer, sterile gowns and gloves; hats and masks; central line kit; ultrasound	Milestones: 9/1a 14/1a 14/2a Hands-on: "Appendix K Group CVC Training Checklist with Milestones.doc"

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Slit lamp/tonometer	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Tonometer/slit lamp" 2. Hands-on session to practice slit lamp exam and using tonometer to check intraocular pressure	-Indications for use of slit lamp in patient with an eye complaint - Technique for correct use of slit lamp - Indications for checking intraocular pressure - Technique for checking intraocular pressure	The learner will demonstrate the ability to: 1. Recognize indications to perform slit lamp exam and check intraocular pressure 2. Correctly operate slit lamp 3. Correctly use tonometer to evaluate intra-ocular pressure	PGY-1	35 minutes (hands-on session) Instructors: 1 per 2 learners Equipment: slit lamp, tonometer, hard-boiled egg for tonometer practice	Milestones: N/A Hands-on: Direct observation of proper slit lamp and tonometer use
Vascular Access	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Vascular Access" 2. Hands-on session to practice placing arterial line, intraosseous line, and ultrasound-guided IV	-Indications and contraindications for placing arterial line, intraosseous line, and ultrasound-guided IV - Technique for placing arterial line, intraosseous line, and ultrasound-guided IV	The learner will demonstrate the ability to: 1. Recognize indications to place arterial line, intraosseous line, and ultrasound-guided IV 2. Correctly place arterial line, intraosseous line, and ultrasound-guided IV	PGY-1	35 minutes (hands-on session) Instructors: 1 per 2 learners Equipment: Phantom vascular task trainer, chicken bones or IO (intraosseous) task trainer, ultrasound, arterial line kit, 18-gauge angiocath, IO drill with needles	Milestones: 14/1a, b, c 14/2a, b, f 14/3b Hands-on: "Appendix L Vascular Access Station Checklist.docx"

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Ultrasound	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Ultrasound" 2. Hands-on session to practice performing eFAST exam	-Indications for using eFAST exam on the emergency department patient - Technique for performing and interpreting eFAST	The learner will demonstrate the ability to: 1. Select appropriate probe for exam 2. Identify landmarks and locations for ultrasono-graphic evaluation 3. Recognize normal ultrasound anatomy	PGY-1	35 minutes (hands-on session) Instructors: 1 per 2 learners Equipment: ultrasound, standardized patient	Milestones: 12/1a, b Hands-on: "Appendix M Ultrasound Assessment. docx"
Splinting	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Splinting" 2. Didactic "Appendix N Splinting Lab.pptx" 3. Hands-on session to practice placing a splint	-Indications for placing specific splints: sugar-tong, volar slab, short/long leg, ulnar gutter, lower extremity 3-way - Technique for placing specific splints: sugar-tong, volar slab, short/long leg, ulnar gutter, lower extremity 3-way	The learner will demonstrate the ability to: 1. Identify patients who would benefit from splint placement in the ED 2. Select appropriate splint based on the diagnosis 3. Use appropriate technique to place a splint 4. Identify pitfalls and complications around splint placement	PGY-1	30 minutes (didactic) Lecture: "Appendix N Splinting Lab.pptx" Instructors: 1 30 minutes (hands-on session) Instructors: 1 per 6 learners Equipment: splinting material	Milestones: N/A Hands-on: Direct observation of appropriate splinting technique

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Intubation, airway adjuncts	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "Intubation & Airway Adjunct" 2. Hands-on session to review airway anatomy and practice advanced airway techniques including LMA (laryngeal mask airway), bougie, video/direct laryngoscopy	-Airway anatomy - Evaluation of airway to predict degree of difficulty with intubation - Use of a variety of devices to secure airway including "rescue" techniques	The learner will demonstrate the ability to: 1. Identify important airway anatomic landmarks 2. Assess Mallampati score 3. Perform video and direct laryngoscopy 4. use ancillary devices such as LMA and bougie in difficult airway situations	PGY-1	35 minutes (hands-on session) Instructors: 2 per 6 learners Multimedia: "Appendix O Airway Anatomy Worksheet.jpg" Faculty guides: "Appendix P Airway Anatomy Worksheet Key.jpg," "Appendix R Intubation Station Assessment Key.docx" Equipment: airway task trainers (adult and pediatric); video laryngoscope, direct laryngoscope, bougie, LMA, airway anatomy diagram	Milestones: 10/1a 10/2a, d Hands-on: "Appendix Q Intubation Station Assessment.docx" "Appendix O Airway Anatomy Worksheet.jpg"

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Bag-valve-mask (BVM) and oxygenation	1. Asynchronous learning: Appendix B Intern Orientation Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning.docx "BVM & Oxygenation" 2. Hands-on session to familiarize with variety of oxygen delivery devices and practice proper BVM technique	-Techniques to maximize oxygenation (e.g. jaw thrust, chin lift, oropharyngeal airway/ nasopharyngeal airway (OPA/NPA) - Use of oxygen delivery devices with appropriate oxygen flow rate	The learner will demonstrate the ability to: 1. Perform basic positioning maneuvers to improve oxygenation 2. Use proper technique when utilizing BVM for oxygenation 3. Select appropriate oxygen flow rate for nasal cannula, simple mask, non-rebreather, and BVM 4. List indications and contraindications for OPA/NPA 5. Select correct size for OPA/NPA 6. Properly place OPA and NPA	PGY-1	35 minutes (hands-on session) Instructors: 2 per 6 learners Faculty Guide: "Appendix S Adult Oxygen Delivery and Bag Valve Mask Ventilation.docx" Equipment: airway task trainers (adult and pediatric); oxygenation devices (OPA, NPA, BVM, non-rebreather, simple mask, nasal cannula)	Milestones: 10/1b Hands-on: "Appendix T Bag-Valve-Mask (BVM)/Oxygenation Assessment.docx"

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DAY IN THE LIFE ACTIVITY
"Appendix U MSM EM Interns Day in the Life.docx"

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History and Physical (H&P) (Abdominal pain, Chest pain, Shortness of breath)	1. Asynchronous learning: "Appendix V Podcast Assignment Day in the Life.docx" 2. Standardized Patient (SP) Case Simulation 3. Faculty Presentation Simulation	- Key history and physical findings to evaluate when seeing a patient with chief complaint of: chest pain, abdominal pain, or shortness of breath -Basic components of efficient ED presentation	The learner will demonstrate the ability to: 1. Obtain a thorough history and perform focused physical on SP with chief complaint of: chest pain, abdominal pain, and shortness of breath 2. Deliver a succinct yet thorough presentation on their SP 3. Develop differential diagnoses based on history and physical 4. Develop an appropriate plan to evaluate the SP's chief complaint	PGY-1	140 minutes 6 Standardized patients 6 Faculty H&P's for SP and faculty preparation: "Appendix W History & Physical Standardized Patient Session Abdominal Pain.docx" "Appendix X History & Physical Standardized Patient Session Chest Pain.docx" "Appendix Z History & Physical Standardized Patient Session Dyspnea.docx" "Appendix Z Patient Face-Sheets.docx" (Initial triage note with vitals to be hung on door to SP room for learner to review prior to starting H&P) "Appendix AA Physical Exam Findings.docx" (list of abnormal findings to be given to learner by SP during/after physical exam) "Appendix AB Patient Results.docx" (lab, imaging, and EKG results; may be uploaded to EHR (electronic health record) and/or given directly to learner after presentation) Equipment: 6 patient rooms with hospital beds; gowns for SP's	Milestones: 1/1 2/1 3/1 4/1 6/1 7/1 8/1 17/1 18/1a, b 23/1 SP attestation of completion of pertinent physical exam: "Appendix AC Patient Physical Exam Findings Checklist.docx" SP Milestone Checklist: "Appendix AD Day in the Life Milestone Standardized Patient Assessment Tool..doc" Faculty presentation checklist: "Appendix AE DITL Patient Presentation Assessment Tool.doc" Faculty Milestone Evaluation: "Appendix AF Day in the Life Milestone Faculty Assessment Tool.docx"

DIDACTICS AND HANDS-ON CURRICULUM

Topic	Recommended Educational Strategy	Educational Content	Objectives	Learners	Timing, Resources Needed (Space, Instructors, Equipment, Citations of JETem pubs or other literature)	Recommended Assessment, Milestones Addressed
Documentation	Use of EHR training platform to document SP encounters	Application of principles reviewed during Charting Didactic given on Procedure Day "Appendix J Chart Smart Medical Legal Communication Coding.pptx" Navigation of EHR through documentation of standardized patient case and review of lab/imaging results in EHR	The learner will demonstrate the ability to: 1. Accurately document a patient encounter 2. Use the EHR to order tests/medications and document their SP encounter	PGY-1	1.5 hours Equipment: computer with Wi-Fi access IT department will need to upload standardize patient information, demographics, results onto EHR to allow real-time charting	Milestones: 18/1a 18/2a Faculty review of chart
Patient Communication	Standardized patient case scenario	Techniques for establishing rapport with patients Listens attentively to patients	The learner will demonstrate the ability to: 1. Establish rapport with their standardized patient (SP) 2. Convey empathy to their SP 3. Listen effectively to the SP complaints	PGY-1	140 minutes 6 Standardized patients Equipment: 6 hospital/ED rooms; if completing assessment electronically, will need computers in each room to be used by SP to fill out assessment form	Milestones: 22/1a, b SP Communication Assessment: "Appendix AG Day in the Life Standardized Patient Feedback Form"
Consult communication	1. Asynchronous learning: Podcast Reading Assignments.docx- - "Calling consultant/5C model" 2. Simulated consult with specialist and admitting service for SP seen in H&P exercise	- Key components of communication with a consultant (admitting service and specialist consult)	The learner will demonstrate the ability to: Follow the 5C model when discussing a patient case with a consultant	PGY-1	60 minutes 6 Faculty Equipment: 12 phones	Milestones: 23/2 23/3a, b "Appendix AH Day in the Life Consultation Assessment Tool.docx"

Appendix A:
Multiple Session Map: EM Intern Wound Day

8:00 –8:50	Didactic: Simple Laceration Repair Faculty
9:00-9:50	**Simple Laceration Repair:** Local anesthetic, simple interrupted suture, running suture, deep suture, staples, alternate closure Four simultaneous stations
10:00-10:50	**Didactic: Complex Laceration Repair:** High risk wounds: infection, cosmetic
11:00-11:50	**Complex Laceration Repair:** Stellate, v-shaped, corner stitch, layered repair, cartilage repair, lip laceration Four simultaneous stations in the skills lab
12:00-12:45	**LUNCH**
1:00-1:30	**Didactic: Burn Care:** Burn classification, management, outpatient care, acute resuscitation/care
1:30-2:00	**Escharotomy & Burn Care**
2:15-2:45	**Didactic: Regional Blocks**
3:00-3:45	**Skills Stations: Regional Block**
4:00-4:45	**Complications & Consent Lecture**

Session Name / Number	Simulation Technology & Equipment	Number of Learners	AV Needs	Notes
Lac Repair & Regional Anesthesia	Cadaveric specimens	12-16		Laceration repair kits x 10 Suture material: dissolvable, nylon 6-0, 4-0 “Lidocaine,” “bupivacaine” 10ml Syringe 27-gauge needles Blunt fill needles
Burn Care				Scalpels Charred hot dogs
Didactics	Laptop LCD Screen	12-16	PowerPoint lecture for LCD screen	

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https://doi.org/10.21980/J8C04H

Appendix B:
Intern Orientation: Wound & Burn Day and Procedure Day Pre-assignments for Asynchronous Learning

Wound & Burn Day

Laceration Repair

- Local Anesthetic: http://lifeinthefastlane.com/procedures/local-anaesthetic/
- Closing The Gap (https://lacerationrepair.com/)
  - Wound Blog: Wound Preparation
  - Techniques: Basic Suturing (all topics)
  - Techniques: Advanced Suturing: Layered Closure, Running Percutaneous Sutures
  - Techniques: Anatomic Regions: Ear Lacerations Part 1&2, Lip Lacerations Part 1&2
  - Other Topics: Patient Resources: Laceration Aftercare Instructions

- *Optional:*
  - Closing The Gap (https://lacerationrepair.com/): Techniques: Alternative Wound Closure (Hair Apposition)
  - FYI handy resource: http://www.aliem.com/pv-card-local-anesthetic-toxicity-calculations/

General Burn Management

- Closing the Gap (https://lacerationrepair.com/): Other Topics: Burns Parts I-V

Regional Anesthesia:

- Facial and dental nerve blocks (https://sites.google.com/site/emprocedures/facial-and-dental-nerve-blocks):
  - All 7 videos
- Single digit block: https://www.aliem.com/2010/trick-of-trade-single-digital-block/

Procedure Day

CVC placement

- "Ultrasound-guided central venous cannulation" https://cordemblog.wordpress.com/2016/08/11/resident-procedure-videos-revisited/

- *Optional: NEJM video "Placement of femoral venous catheter"*
- *Optional: NEJM video "Central venous catheterization – subclavian vein"*

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Tonometer/slit lamp

- Slit lamp video: https://cordemblog.wordpress.com/2016/08/11/resident-procedure-videos-revisited/

- Tonometer: https://www.youtube.com/watch?v=OJso6-m711I&t=16s

Vascular Access

- EZ-IO: https://cordemblog.wordpress.com/2016/08/11/resident-procedure-videos-revisited/

- *Optional manufacturer video EZ-IO: http://www.arrowezio.com/procedure-intraosseous-access/demonstration-of-ezio-vascular-access-IO-drill*

Ultrasound

- E-FAST exam: https://cordemblog.wordpress.com/2016/08/11/resident-procedure-videos-revisited/

Splinting:

- 3M Scotchcast conformable splint demo: https://www.youtube.com/watch?v=xNfp2hBFqHg
- "Splint like a pro" videos:
  - Sugartong splint: https://www.youtube.com/watch?v=1yg5HWbk8pE
  - Ulnar gutter splint: https://www.youtube.com/watch?v=Ol1J6wc_6h0
  - Thumb spica splint: https://www.youtube.com/watch?v=ww2_e0DoUy8&t=5s
  - Posterior lower leg splint: https://www.youtube.com/watch?v=Z4jhDZ1ljlc
  - Posterior lower leg splint with stirrup: https://www.youtube.com/watch?v=SjV6DmZ5Xow

Intubation & Airway Adjunct

- LMA Supraglottic airway & orotracheal intubation videos: https://cordemblog.wordpress.com/2016/08/11/resident-procedure-videos-revisited/
- Glidescope Intubation: https://airwayjedi.com/2015/07/30/tricks-intubation-glidescope-technique/
- Bougie: https://lifeinthefastlane.com/ccc/bougie/

- *Optional: http://lifeinthefastlane.com/own-the-airway/*

BVM & Oxygenation

- http://lifeinthefastlane.com/own-the-airway/

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Appendix C:
Laceration Repair Station Faculty Guide

Procedural tasks:

1. Place at least 3 simple interrupted sutures
2. Place at least 1 vertical mattress suture
3. Place at least 1 horizontal mattress suture

Knowledge tasks:

1. Prepare a wound for suturing
    a. Identifies appropriate suture material
        i. 6-0 for face
        ii. 4-0 or 5-0 for extremity
        iii. Nylon for most external laceration repairs
        iv. Dissolvable for mucosal or buried/deep
    b. Verbalize process to irrigate and anesthetize
        i. Large volume irrigation (more important than pressure) with saline or tap water
        ii. Anesthetize as appropriate (see below)
2. Describe indications, contraindications and possible complications of local anesthesia
    a. Indications: achieve anesthesia prior to laceration repair, assist with hemostasis (when epi used)
    b. Contraindications: allergy to specific agent (may discuss amide vs ester but not necessary)
    c. Possible complications
        i. Pain at injection site
        ii. Masking of neuro exam (particularly with regional block)
3. Describe appropriate dose of lidocaine/toxic dose
    a. Typical is 1% lidocaine with or without epi
    b. Maximum dose Lido 1% without epi = 4.5 mg/kg
    c. Maximum dose Lido 1% wit epi = 7 mg/kg
4. Describe technique of delivery of subdermal anesthesia.
    a. Inject into wound margins rather than intact skin
    b. Use longer needle to reduce puncture sites
    c. Use smallest gauge needle possible (27gauge)

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Appendix D:
Wound & Burn Assessment Tool

Intern Name: _____

Station #1 SIMPLE WOUNDS:

Tasks:

- Prepare wound for cleaning (may verbalize process: debridement, saline/tap water irrigation with emphasis on volume not pressure; methods for bloodless field)
- Selects appropriate suture material (give example of intra-oral, facial, extremity)
- Discuss when/if to use sterile prep (not necessary for wound repair, but may consider in high risk wounds)
- Demonstrate repair of linear laceration (simple interrupted, running suture)
- Discuss options and indications for alternate wound repair (adhesives, steri-strips, hair apposition, staples)

Milestones:

Patient interaction:

☐ Discusses with the patient indications, contraindications and possible complications of local anesthesia (milestone 11/1a)

☐ Educates patient on appropriate outpatient management of their wound (milestone 13/2d)

Skill:

☐ Injects local anesthesia (milestone 11/1b)

☐ Recognizes dose of lidocaine (milestone 11/b)

☐ Prepares a simple wound for suturing (selects suture, irrigate) (milestone 13/1a)

☐ Demonstrates sterile technique (milestone 13/1b)

☐ Places simple interrupted suture (milestone 13/1c)

☐ Compares & contrasts modes of wound management (adhesives, steri-strips, hair apposition, staples) (milestone 13/2c)

Station #2 COMPLEX WOUNDS

Tasks

- On cadaver, make stellate/avulsion/deep/v-shaped lacerations on extremity
- On cadaver, make cartilage laceration (ear, nose)
- Learner should describe a wound
- Place layered suture, horizontal/vertical mattress suture, corner stitch, undermining

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Milestones:

Skill:

☐ Uses medical terminology to clearly describe/classify a wound (e.g. stellate, abrasion, avulsion, laceration, deep vs superficial) (milestone 13/2a)
☐ Identifies wounds that require antibiotics or tetanus prophylaxis (milestone 13/2b)
☐ Performs complex wound repairs (deep sutures, layered repair, corner stitch) (milestone 13/3a)
☐ Determines which wounds should not be closed primarily (milestone 13/3c)
☐ Demonstrates appropriate use of consultants (milestone 13/3d)
☐ Identifies wounds that may be high risk and require more extensive evaluation (example: X-ray, ultrasound, and/or exploration) (milestone 13/3e)
☐ Applies finger tourniquet (milestone 13/4a)
☐ Places deep suture (milestone 13/4a)
☐ Identifies use of lido with epi as option for hemostasis (milestone 13/4a)
☐ Repairs ear/nose cartilage wound (milestone 13/4b)

Station #3 REGIONAL ANESTHESIA/BLOCKS

Tasks:

- On cadaver, practice digital, infra-orbital, supraorbital, mental blocks
- Selects appropriate anesthetic and doses for anesthesia

Milestones:

Patient communication:

☐ Obtains informed consent and correctly performs regional anesthesia (milestone 11/3d)

Skills:

☐ Knows the anatomic landmarks, indications, contraindications, potential complications and appropriate doses of local anesthetics used for regional anesthesia (milestone 11/2b)

Station #4: BURNS

Tasks:

- Didactic/discussion: burn classification, body surface area estimation
- Describe indications and steps for escharotomy
- Discuss outpatient burn care (blisters, Silvadene/bacitracin, contraindications to Silvadene [sulfa allergy], facial burns)

Milestones:

Skills:

☐ Classifies burns with respect to depth and body surface area (milestone 13/2b)
☐ Describes the indications for and steps to perform an escharotomy (milestone 13/4c)

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Appendix E:
Complex Laceration Repair PowerPoint

See associated content.

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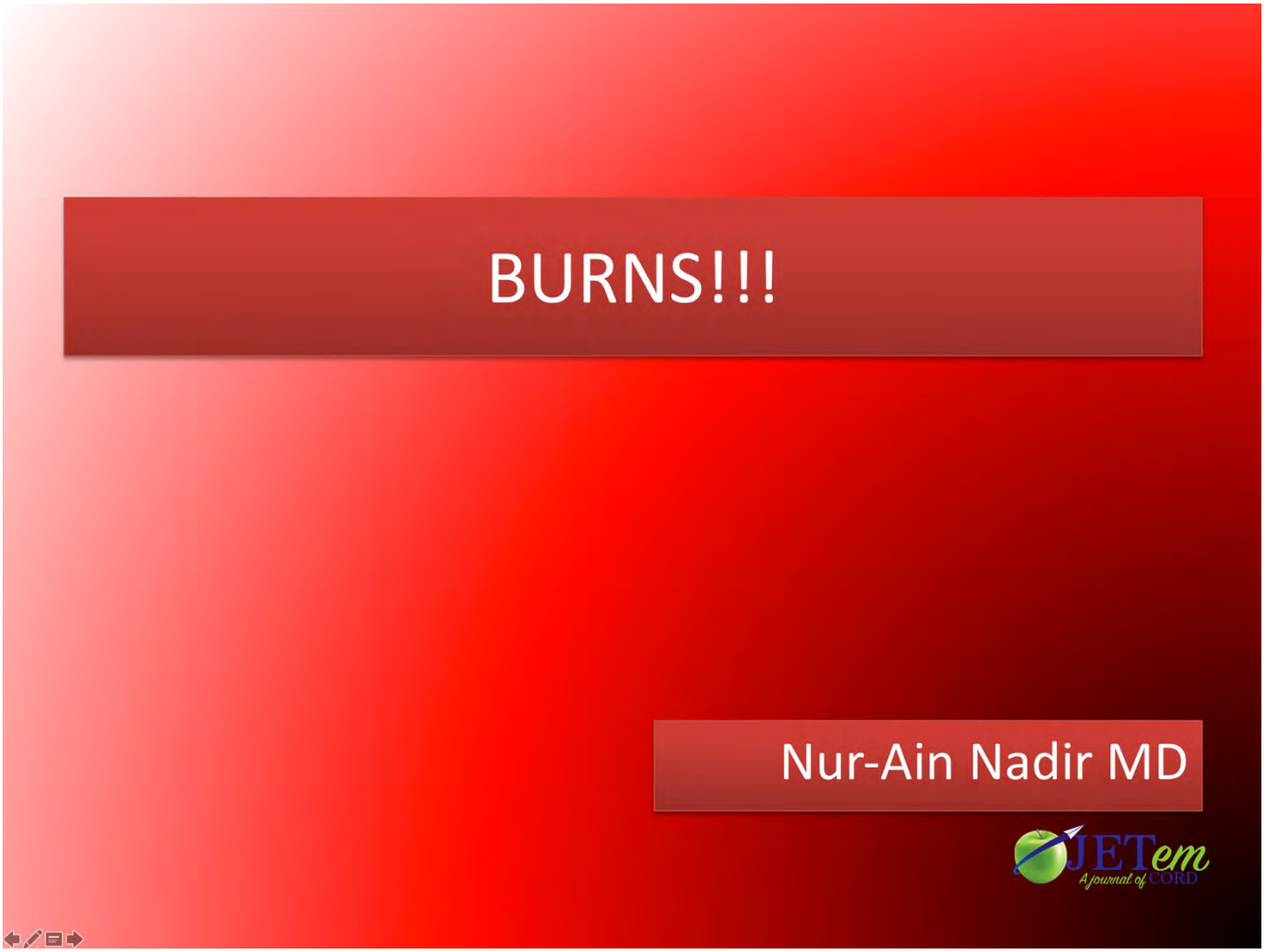
Appendix F:
Burn Mini Lecture PowerPoint



See associated content.

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Appendix G:
Nerve Blocks PowerPoint

See associated content.

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Appendix H:
Complications and Consent PowerPoint

See associated content.

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Appendix I:
Multiple Session Map: EM Intern Procedure Day

8:00 –9:00	**Orientation & Charting Lecture –FACULTY**				
TIME BLOCK	**CVC Training FACULTY**		**Slit Lamp /Tonopen FACULTY**	**Vascular Access FACULTY**	**Ultrasound FACULTY**
	Location		Location	Location	Location
9:00-11:00	6 Interns	9-9:35	2 interns	2 interns	2 interns
		9:40-10:15	2 interns	2 interns	2 interns
		10:20-10:55	2 interns	2 interns	2 interns
11:00-11:30	**INTRO TO ORTHO / SPLINTING LECTURE– (FACULTY)**				
11:30-12:00	**Splinting Lab –(FACULTY)**				
12:00–12:30	**LUNCH BREAK**				
	CVC Training Faculty		**Slit Lamp /Tonopen Faculty**	**Vascular Access Faculty**	**Ultrasound Faculty**
	Location		Location	Location	Location
12:30-2:30	6 interns	12:30-1:05	2 interns	2 interns	2 interns
		1:10-1:45	2 interns	2 interns	2 interns
		1:50-2:25	2 interns	2 interns	2 interns
	***BVM, Oxygenation**			***Intubation, Airway Adjuncts**	
	Location **Faculty**			Location **Faculty**	
2:30-3:05	6 Interns			6 Interns	
3:10-3:45	6 Interns			6 Interns	
3:45-4:00	Wrap-Up –**Faculty Team**				

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DIDACTICS AND HANDS-ON CURRICULUM

Session Name / Number	Simulation Technology & Equipment	Number of Learners	AV Needs	Notes
CVC Training	Central Line Trainer x 2 Ultrasound x 1 Central line kit x 4 Sterile Prep x 3 (gown, gloves, hats)	1		One trainer for IJ, one trainer for SC
IO/vascular access	Peripheral IV pads x 2 Phantom vascular access trainer IO Trainer IO gun + needles Peripheral IV set-up (see notes) Ultrasound x 1 (from ED)	3		Peripheral IV set-up: 18, 20, 22-gauge angiocath; j-loops, saline syringes, tape, Tegaderm
Slit Lamp Tonometry	Slit Lamp (from ED) iCare tonometer (from ED)	3		
Ultrasound applications	Standardized patient Ultrasound x 1 Simbionix Laptop, LCD display	3		
Intubation/ Airway Adjuncts	Airway Trainer x 4 Glidescope Bougie X 4 Laryngoscopes & blades	3		

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	ET tubes (7.5, 8.0) LCD/screen/laptop			
Splint Lab	Scotchcast pre-cut splint material (multiple lengths/widths) x 6 Trauma shears Buckets for water Towels	12		ACE wrap, Webril
BVM Oxygenation	BVM equipment Oxygen head-board with oxygen trees Airway trainers/heads Nasal cannula Simple mask Non-rebreather mask	3		

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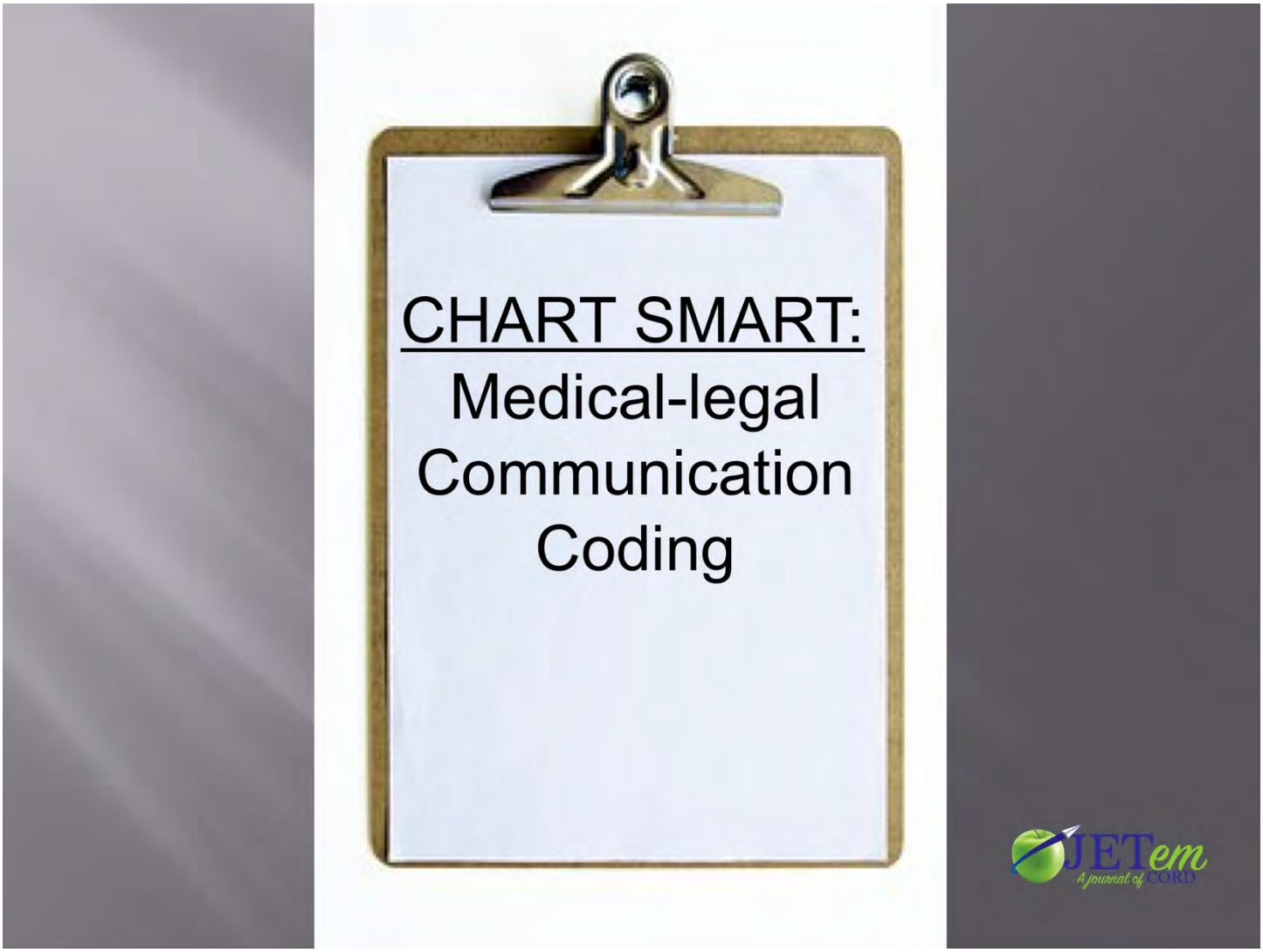
Appendix J:
Chart Smart Medical Legal Communication Coding PowerPoint



See associated content.

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Appendix K:
Group CVC Training Checklist with Milestones

Intern Name: ____

PROCEDURE CHECKLISTS Date: ______________ Evaluator: ____________________________

Faculty Overview:

1) Informed consent (have each resident practice informed consent discussion)
2) Sterile Prep
3) Kit set-up
4) Mannequin: ultrasound-guided internal jugular placement, blind subclavian placement
5) Patient draping (can be done with sterile prep or with procedural component)

Sterile Barrier Preparation, kit set-up, informed consent

Key: A = Done Correctly B = Done Incorrectly C= Not Done

Obtains Informed Consent. Benefits (medication, fluids, central venous pressure (CVP) monitoring.)	A	B	C
Risks (Pneumothorax, arterial puncture-bleeding, infection, thrombosis)	A	B	C
Describes the additional interventions that would address complications	A	B	C
Non-sterile set up.			
Puts on surgical cap and mask before opening the central venous catheter (CVC) bundle.	A	B	C
Opens CVC Bundle wrapper on sturdy work surface without touching materials (CVC kit, Chlorhexidine, or drape) inside blue wrapper.	A	B	C
Puts on sterile gloves, separates inner bundle materials, locates Chlorhexidine.	A	B	C
Indicates on self the area to be prepped with Chlorhexidine.	A	B	C
Opens Chlorhexidine, vigorously scrubs the setup table for ***<u>30 SECONDS</u>*** in 3 planes (horizontal, vertical, and diagonal - 10 sec each) dry time 2 minutes.	A	B	C
Discards gloves.	A	B	C
Opens and drops sterile probe cover onto sterile field.	A	B	C
Barrier Protection phase--doctor, patient, probe.			
Opens second pair sterile gloves and gown, placing on counter top.	A	B	C
Performs hand hygiene: ***15 seconds*** for hand sanitizer, ***30 seconds*** for soap/water)	A	B	C

Barrier doctor: Puts on sterile gown by opening gown with the fold toward themselves, *hands must remain inside sleeves*.	A	B	C
Puts on sterile gloves by inserting white sleeve collar inside glove first, then sliding hand through white collar into glove.	A	B	C
Barrier patient: Drape applied transversely across table then pulled over the head/superior part of table and <u>then</u> over the "body" [rest of table].	A	B	C
Barrier US Probe: Verbalizes this step. [skill practiced at US station]	A	B	C
Set up CVC kit.			
Prepares order of use--lidocaine syringe, finder needle, wire, scalpel, dilator, CVC catheter. Obtains needleless caps, saline, 2nd Chlorhexidine, Tegaderm.	A	B	C
Flushes ports with sterile saline to purge air and verify patency.	A	B	C
Clamps each port or attaches needleless caps (ok to keep brown port off).	A	B	C
Unclamps and removes cap from brown port to accommodate wire.	A	B	C

<u>Milestone Competencies</u>

Describes indications, contraindications, complications for CVC placement [14.2a]	YES	NO
Assesses the indications in conjunction with the patient anatomy/pathophysiology and selects the optimal site for a CVC [14.2c]	YES	NO
Performs patient assessment, **obtains informed consent**, and ensures monitoring equipment is in place in accordance with safety standards [9.2a]	YES	NO

<u>General Line Insertion</u>

Procedure.			
Verbalizes placing patient in 10-15 degrees Trendelenburg position.	A	B	C
Anesthetizes skin [foam pad] with 1% lidocaine beginning with a small surface wheal and then anesthetizing deeper tissues.	A	B	C
Puncture foam pad with introducer needle.			
Removes the syringe from the needle (or uses syringe port for wire).	A	B	C
Advances guidewire through introducer needle no more than 20 cm [2 black lines on guidewire].	A	B	C
Removes the needle while maintaining hold of guidewire.	A	B	C
Uses the scalpel to nick the foam in order to advance the dilator.	A	B	C
Advances the dilator over the guidewire to dilate the skin [foam pad] using no more than half the dilator's length, then removes dilator.	A	B	C
Advances the triple lumen over the wire, pulling back the guidewire as the catheter is moved forward.	A	B	C
User never releases hold of the guidewire.	A	B	C

Advances the line to approximately to 14-16cm for right side 16-18cm on the left side.	A	B	C
Once the line is in place, removes the guidewire in its entirety.	A	B	C
Verbalizes: Draws blood and flushes each port to ensure there is blood flow.	A	B	C
Cleanses skin of any blood with 4 x 4 gauze and 2nd Chlorhexidine stick.	A	B	C
CVC Completion			
Secures the line in place (Stat Lock is preferred).	A	B	C
Places antibiotic (Chlorhexidine) disk.	A	B	C
Places large Tegaderm over line (or verbalizes this).	A	B	C
Orders a CXR to confirm location.	A	B	C
Notifies nurse that line is ok to use when no pneumothorax is seen and tip of CVC visualized at the superior vena cava (SVC) or right atrial (RA) junction.	A	B	C

<u>Ultrasound-Guided Vein Cannulation (Internal Jugular)</u>

Key: A = Done Correctly B = Done Incorrectly C= Not Done

Pre-Ultrasound neck: Scans to identify largest internal jugular (IJ) and rule out clot in vein. US machine positioned in direct line of sight and *depth, gain* settings optimized.	A	B	C
Barrier US Probe: Applies gel inside probe cover, then places cover on ultrasound (US) probe (may perform by themselves or with an assistant).	A	B	C
Procedure.			
Centers IJ under the US probe in midfield of screen; compress to be sure no clot.	A	B	C
Anesthetizes skin with 1% lidocaine beginning with a small surface wheal and then anesthetizes deeper tissues with direct US visualization.	A	B	C
Using the finder needle and direct US visualization, guides the needle tip into the IJ while aspirating until flash is obtained.	A	B	C

<u>Subclavian Line Placement</u>

Key: A = Done Correctly B = Done Incorrectly C= Not Done

Procedure.			
The vein is localized by anatomical landmarks verbalized. *"I am going 1cm under the clavicle at 1/3rd:2/3rd (medial third) region."*	A	B	C

Anesthetizes skin with 1% lidocaine: begins with a small surface wheal, then anesthetizes tissue to the bone cortex, then the tissues beneath the clavicle.	A	B	C
Inserts the finder needle through skin in the same tissue tract until the clavicle is contacted. While aspirating, walks needle under clavicle maintaining the syringe in a horizontal plane directed toward the finger in the sternal notch. Advances needle under clavicle until a flash of blood is obtained.	A	B	C
Expected to state or demonstrate they are directing the needle to the sternal notch (must verbalize).	A	B	C

Milestone Competencies:

Identifies pertinent anatomy and physiology for CVC in IJ [9.1a]	YES	NO
Identifies pertinent anatomy and physiology for CVC in SC [9.1a]	YES	NO
Performs a venipuncture [14.1a]	YES	NO
Inserts a CVC using US and universal precautions	YES	NO
Inserts a CVC without US when appropriate [14.3a]	YES	NO
Confirms appropriate placement of CVC [14.2e]	YES	NO

Resident name observed correctly completing these milestones:

1. 7.
2. 8.
3. 9.
4. 10.
5. 11.
6. 12.

Central Venous Catheter Placement Tool. Modified from: Barsuk JH, McGaghie WC, Cohen ER, Balachandran JS, Wayne DB. Use of simulation-based mastery learning to improve the quality of central venous catheter placement in a medical intensive care unit. *J Hosp Med*. 2009;4(7):397-403.

Appendix L:
Vascular Access Station Checklist

Intern Name: _____

☐ Performs a venipuncture (Milestone 14/1a)

☐ Places a peripheral intravenous line (Milestone 14/1b)

☐ Performs an arterial puncture (Milestone 14/1c)

☐ Describes the indications, contraindications, anticipated undesirable outcomes and complications for the various vascular access modalities (Milestone 14/2a)

☐ Inserts an arterial catheter (Milestone 14/2b)

☐ Performs intraosseous access (Milestone 14/2f)

☐ Places an ultrasound-guided deep vein catheter (Milestone 14/3b)

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Appendix M:
Ultrasound Assessment

Intern Name: _____

☐ Describes the indications for a focused assessment with sonography for trauma (FAST) exam. (Milestone 12/1a)

☐ Performs an extended FAST (eFAST) exam. (Milestone 12/2b)

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Appendix N:
Splinting Basics PowerPoint

See associated content.

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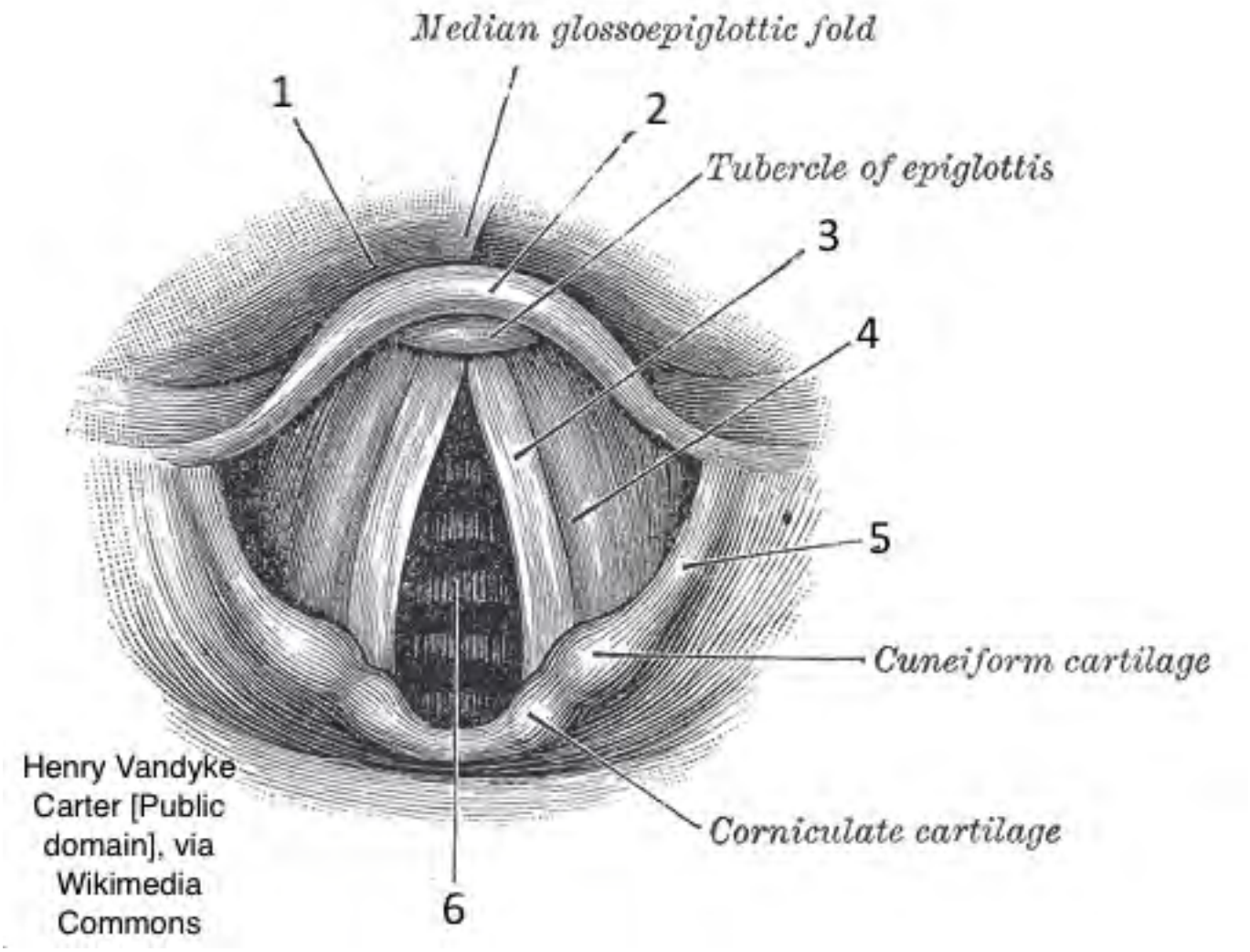
Appendix O:
Airway Anatomy Worksheet



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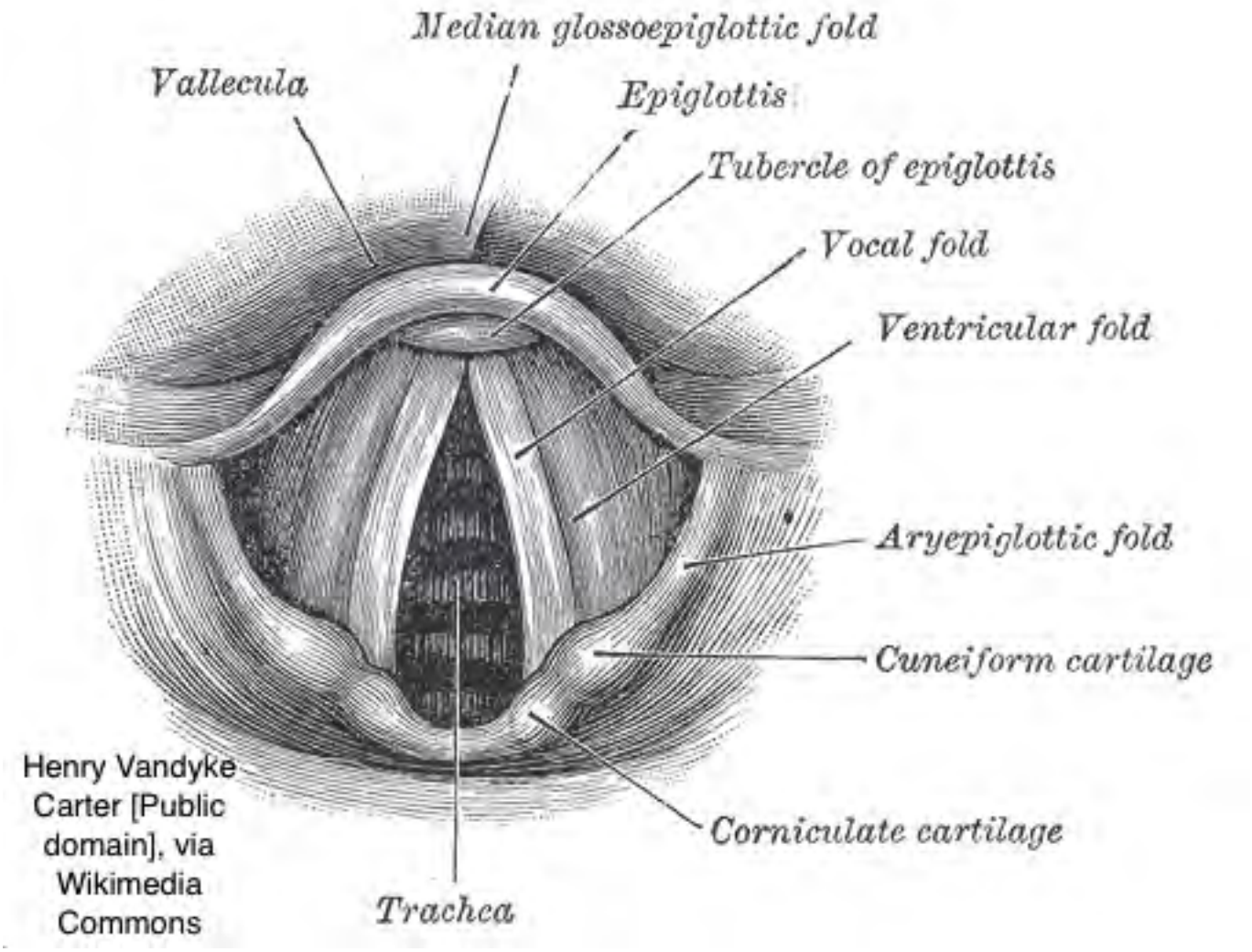
Appendix P:
Airway Anatomy Worksheet Key



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Appendix Q:
Intubation Station Assessment

Intern Name: _____

Correctly identify important airway anatomy using the illustration (Milestones 10/1a)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

You look in your patient's airway prior to RSI (rapid sequence intubation) and see only their soft palate and base of uvula. What is their Mallampati score? (Milestones 10/1a, 10/2a)

Name 2 anatomical features that may make intubation/ventilation with bag-valve-mask (BVM) more difficult: (Milestone 10/2a)

_____ _____

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DIDACTICS AND HANDS-ON CURRICULUM

Intubation	Performs independently	Performs Incorrectly or requires prompt
1. Position airway optimally (shoulder roll or head tilt chin lift)		
2. Choose correct laryngoscope and blade size		
3. Choose correct endotracheal tube size		
4. Verbalize equipment needed for suction, BVM, oxygen source, continuous monitoring		
5. Hold laryngoscope properly (left hand, tension placed away from gumline, wrist straight)		
6. Visualize vocal cords		
7. Insert endotracheal tube to proper depth		
8. Verbalize methods of confirmation (chest rise, vapor, equal breath sounds, chest X-ray, end-title carbon dioxide) (milestone 10/2d)		

Laryngeal Mask Airway (LMA)	Performs independently	Performs Incorrectly or requires prompt
1. Lists indications for use of LMA		
2. Chooses correct size of LMA (3.5 female, 4.5 male)		
3. Ensures cuff is deflated & lubricated		
4. LMA placed correctly		
5. Cuff is inflated with appropriate mL of air		

Bougie	Performs independently	Performs Incorrectly or requires prompt
1. Under direct laryngoscopy, introduces distal end of bougie into oropharynx		
2. Angulated tip positioned under epiglottis and advanced through vocal cords		
3. Describes sound/sensation of clips as bougie passes over tracheal rings		
4. Identifies the second means of confirming proper bougie placement when it catches at carina		
5. Places endotracheal tube (ETT) over bougie and advances into airway		

Video Laryngoscopy	**Yes**	**No**

Chooses correct ETT size and need for lubrication		
Checks balloon		
Stylet correctly positioned (not beyond eyelet)		
Verbalizes check of airway adjuncts (i.e. suction, BVM)		
Performs direct laryngoscopy using the video-based laryngoscope & visualizes vocal cords		
Inserts the deflated and lubricated ETT to proper depth		
Inflates cuff and provides BVM		
Checks for tube position (bilateral breath sounds, end-title carbon dioxide)		

Review of checklist/Suggestions for improvement:

_____
_____
_____
_____
_____

Preceptor's signature: _____ Date: _____

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Appendix R:
Intubation Station Assessment Key

Correctly identify important airway anatomy using the illustration (Milestones 10/1a)

1. *Vallecula*
2. *Epiglottis*
3. *(True) Vocal cords*
4. *Ventricular Fold*
5. *Aryepiglottic Fold*
6. *Trachea*

You look in your patient's airway prior to RSI (rapid sequence intubation) and see only their soft palate and base of uvula. What is their Mallampati score? (Milestones 10/1a, 10/2a)

Mallampati score is 3.

Name 2 anatomical features that may make intubation/ventilation with bag-valve-mask (BVM) more difficult: (Milestone 10/2a)

Features making intubation/ventilation more difficult: (any 2)

Short neck
Receding mandible
Large tongue
Protruding maxillary incisors
Narrow mouth with high arch palate
Large breasts
Obesity
Facial hair
Limited neck mobility

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Appendix S:
Adult Oxygen Delivery and Bag Valve Mask Ventilation

Oxygen Delivery

Flow requirements and oxygen delivery

Cannula: 1-6 L/min
Simple mask flow at least 6-10 L/min, provides 35%-60% oxygen
Nonrebreather mask (with reservoir bag), flow at least 10-15 L/min, close to 100% oxygen if good seal
CPAP/BiPap: Initial settings 5 or 5/10 (or 8/12), may need anxiolysis
High flow nasal cannula: delivers heated, humidified air at rates up to 60 L/minutes in adults; beneficial for adults with acute hypoxemia respiratory failure in absence of hypercapnia (e.g. pneumonia)

Free flow oxygen CANNOT be provided with a self-inflating "Ambu" bag

Indications: hypoxemia, respiratory distress

Contraindications:

Use caution in patients with:

1) congenital heart disease, particularly those with cyanotic heart disease uncorrected or only partially corrected
2) patients with chronic CO2 retention will also differ

Complications: anxiety, increased pulmonary vasodilation and pulmonary edema with left to right shunted or single chamber congenital heart disease, dry mucus membranes, nosebleeds

Bag-Mask Ventilation

Indications:

- Hypoventilation
- Severe respiratory distress or impending failure with inadequate oxygenation or ventilation
- Ineffective or inadequate breathing
- Inadequate respiratory effort
- Respiratory arrest or apnea

Contraindications:

- Head tilt/chin lift contraindication with head injury or neck trauma (must use jaw thrust)

Technique review:

- May be performed using one or two clinicians
- Position patient (Head-tilt, chin-lift or jaw thrust unless concern for c-spine injury)
- Utilize oropharyngeal or nasopharyngeal airways as indicated

- Ensure proper mask placement: cover nasal bridge, malar eminences, mandibular alveolar ridge
- Secure bag to face using EC clamp technique
- Deliver a tidal volume sufficient to cause chest rise (giving more may cause barotrauma)
- Rate 10-12 breaths/min

Complications:

- Barotrauma, pneumothorax
- Gastric distension with vomiting and/or aspiration
- Air trapping with severe obstruction resulting in increased intrathoracic pressure, decreased cardiac output
- Hyperventilation with incorrect rate resulting in decreased cerebral perfusion pressure

Special circumstances:

Difficult airways, facial trauma, anatomic airway malformations, patients with tracheostomy

References:

1. Wittels KA. Basic airway management in adults. In: Walls RM, Grayzel J, eds. *UpToDate*. Waltham, MA: UpToDate Inc. www.uptodate.com. Updated April 4, 2018. Accessed June 14, 2018.
2. Torrey SB. Continuous oxygen delivery systems for infants, children and adults. In: Parsons PE, Willey JH II, eds. *UpToDate*. Waltham, MA: UpToDate Inc. www.uptodate.com. Updated August 24, 2017. Accessed June 14, 2018.

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https://doi.org/10.21980/J8C04H

Appendix T:
Bag-Valve-Mask (BVM)/Oxygenation Assessment

Intern Name: _____

	Performs independently	Performs Incorrectly or requires prompt
1. Demonstrates jaw thrust & chin lift (milestone 10/1b)		
2. Able to ventilate/oxygenate patient using BVM (milestone 10/1b)		
3. Selects correct oxygen flow rate for:		
a. Nasal cannula		
b. Simple mask		
c. Non-rebreather		
d. BVM		
4. Lists indications for use of oropharyngeal airway/nasal pharyngeal airway		
5. Lists contraindications for the use of each device		
6. Describes how to choose the correct size		
7. Demonstrates proper technique for placement of oropharyngeal airway (milestone 10/1b)		
8. Demonstrates proper technique for placement of nasopharyngeal airway (milestone 10/1b)		

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Appendix U:
Multiple Sessions Map: EM Interns Day in the Life

Number of Learners 12: Number of Faculty 6

TIME BLOCK	ED 311		ED 312		ED 313		ED 315		ED 316		ED 317	
		FACULTY		**FACULTY**		**FACULTY**		**FACULTY**		**FACULTY**		**FACULTY**
	CP	PRESENT & FEEDBACK	ABD	PRESENT & FEEDBACK	SOB	PRESENT & FEEDBACK	CP	PRESENT & FEEDBACK	ABD	PRESENT & FEEDBACK	SOB	PRESENT & FEEDBACK
7:45 – 8:00	Full Group Orientation to Event											
8:00 – 8:20	1		2		3		4		5		6	
8:20 – 8:40	7	1	8	2	9	3	10	4	11	5	12	6
8:40 – 9:00	3	7	1	8	2	9	6	10	4	11	5	12
9:00 – 9:20	9	3	7	1	8	2	12	6	10	4	11	5
9:20 – 9:40	2	9	3	7	1	8	5	12	6	10	4	11
9:40 – 10:00	8	2	9	3	7	1	11	5	12	6	10	4
10:00 – 10:20		8		9		7		11		12		10
10:20 -10:30	BREAK											

CONSULTS & CHARTING	CP	CP	ABD PAIN	ABD PAIN	SOB	SOB
	FACULTY	**FACULTY**	**FACULTY**	**FACULTY**	**FACULTY**	**FACULTY**
10:30 – 10:40	1	2	3	4	5	6
10:40 – 10:50	7	8	9	10	11	12
10:50 – 11:00	5	6	1	2	3	4
11:00 – 11:10	11	12	7	8	9	10
11:20 – 11:30	3	4	5	6	1	2
11:30 -11:40	9	10	11	12	7	8
11:40 – 1200	Full Group Debrief – ED Milestone Conf Room					

Need 6 phone pairs for each group.

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DIDACTICS AND HANDS-ON CURRICULUM

SP supervisor: Faculty
Physician supervisor: Faculty

Session Name / Number	Simulation Technology	Number of Learners	Moulage	Multimedia	Attachment(s)
CP	SP – 45-60-yo	1	Hospital gown	N/A	N/A
Abd Pain	SP 20-30-yo M (or older male)	1	Hospital gown	N/A	N/A
SOB	SP 20 – 40-yo	1	Hospital gown	N/A	N/A

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Appendix V:
Podcast Assignments: Day in the Life

EM Basic (embasic.org)
These podcasts can be downloaded at the Podcast Archive, specific episode numbers are listed.
http://embasic.org/podcast-direct-download/

- How to give a good ED presentation (Episode 17)
- Chest pain (Episode 1)
- Shortness of breath (Episode 16)
- Altered mental status (Episode 11)
- Abdominal pain (Episode 2)

Calling consultant/5C model

- http://rebelem.com/how-to-call-a-consult/

Optional:

- Tips for working with consultants by ACEP Now
- http://www.acepnow.com/article/tips-working-consultants/?elq_mid=23306&elq_cid=10131237

Appendix W:
History & Physical Standardized Patient Session: Abdominal Pain

Patient identifier:
Frederick Cheney
Age: 22

Location: ED

Chief Complaint: Abdominal pain x 2 hours.

History of Present Illness:
Frederick Cheney is a 22-year-old male presenting with severe abdominal pain that started today while he was skyping with his girlfriend, about 2 hours ago. The pain is described as sharp, 8/10, and extremely tender. It started in the middle of his belly but now seems to become more generalized. It gets worse when he moves or walks or coughs. It gets somewhat better when he lays very still. He tried to take some Pepto-Bismol but that did not help. In fact, it made him vomit. He has had two other episodes of vomiting since then. He denies any blood or bile in the emesis. He also denies any diarrhea, constipation, denies any testicular pain.

Patient recalls mild intermittent abdominal pain over the last 2-3 days but it was not persistent so he did not seek medical care.

He has had no surgeries.

He has recently started working out in the gym where he has been lifting weights.

Review of Systems:
Constitutional: Reports some myalgias and chills over last 24 hours. Loss of appetite/anorexia over last 24 hours.
Head, ears, eyes, nose and throat: normal, vision unchanged, no oral pain or throat pain.
Neck: no neck pain or tightness.
Cardiovascular: no chest pain, no palpitations, no orthopnea or paroxysmal nocturnal dyspnea, no loss of consciousness, no dizziness.
Pulmonary: no shortness of breath, no cough, no wheezing.
Gastrointestinal: Has had intermittent abdominal pain x 2 days. Associated with nausea, vomiting since pain started today. No diarrhea, constipation, or blood in stools.
Endocrine: No polyuria, polydipsia, or polyphagia.

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Genitourinary: normal urine stream, no hesitancy, urgency or frequency, no discharge, no genitourinary pain. Normal color of urine. No testicular swelling or pain.
Neurologic: no headache, photophobia, change in vision, focal weakness or numbness.
Psych: no homicidal or suicidal ideations, normal thought patterns, no delusions.
Skin: occasionally "sweaty" and clammy with the pain episodes, otherwise no rashes or skin changes.

Past Medical History:
Asthma diagnosed when he was a child, has once a year flare ups.

Past Surgical History:
Tonsillectomy

Medications:
Albuterol prn
Protein Supplements

Allergies:
Penicillin

Family History:
Mom: Acid Reflux and Arthritis, Gall stones.
Dad: Diabetes, High blood pressure, Kidney stones

Social history:
Lives at home with parents. Denies smoking cigarettes but occasionally smokes marijuana. No other drugs. Occasional alcohol.
Sexually active with girlfriend and monogamous. Has had past encounters with two other partners, once without condoms.

Physical Exam:
Temperature 99.1 (oral); heart rate 120; respiratory rate 18; blood pressure 101/62 left arm, 108/65 right arm, oxygen saturation 99% on room air
Weight 65 kg

General: **mild pain distress, laying very still on the bed**.
Head, ears, eyes, nose and throat: Normocephalic, atraumatic, moist mucous membranes, oropharynx clear, pupils equally round and reactive to light, extraocular movements intact
Neck: supple, no lymphadenopathy, thyromegaly, carotid bruit or mass
Cardiovascular: tachycardic, regular rhythm, no murmur, no gallops or rubs
Respiratory: **mild tachypnea**, normal lung sounds bilaterally
Abdominal: **no bowel sounds, tenderness to palpation in the right lower quadrant, with rebound and guarding. Positive Rovsign's sign, positive stretcher sign. No hernia palpated.**

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https://doi.org/10.21980/J8C04H

Rectal: Normal
Extremities: no cyanosis, clubbing or edema; pulses symmetric throughout upper and lower extremities
Neurologic: non-focal, cranial nerves 2-12 intact, strength 5/5 in upper and lower extremities, sensation intact to light touch
Psychiatric: normal
Genitourinary: Circumcised, normally descended testes bilaterally; no swelling discoloration or masses
Back: no midline tenderness, full range of motion
Musculoskeletal/Skin: no arthritis, no rashes noted on skin

Significant Findings of Ancillary Studies (see document "Patient Results")
Complete Blood Count (CBC): White blood cell (WBC) of 16 with neutrophilic predominance
Complete metabolic panel (CMP): Unremarkable
Lipase: within normal limits
Urinalysis: Positive for white blood cells but no bacteria
Chest X-ray: Unremarkable
Computed tomography of the abdomen/pelvis: Acute appendicitis
Electrocardiogram (ECG): Normal

DIDACTICS AND HANDS-ON CURRICULUM

Appendix X:
History & Physical Standardized Patient Session: Chest Pain

Patient identifier:
Pat Harvey
Age: 56
(Note, this case is written with a male patient but could be run as female with female SP if desired)

Location: ED

Chief Complaint: Chest pain

History of Present Illness:
Pat Harvey is a 56-year-old male presenting with chest pain that started about 2 hours ago while watching TV. Four days ago, he had a similar episode while he was shoveling snow, but that pain resolved as soon as he rested. Today the pain is 6/10, left-sided and occasionally radiates to the axilla. He describes the pain as pressure and sharp. The pain is constant and associated with shortness of breath and anxiety, as well as diaphoresis, but no nausea or vomiting. Pat attempted Motrin and Tums to relieve the pain today, but neither helped. It seems to get worse with ambulation, lying flat, and deep breathing.

He also reports intermittent chest pain after eating for the last 2 months, typically resolving with Tums. The pain is substernal in location, usually lasts 20 minutes and is made worse with spicy foods. The pain today is similar, but more severe and did not resolve with Tums.

Pat has no recent travel or surgeries. Pat has had some trace lower extremity edema develop over the last six months that he attributes to "getting older."

Review of Systems (ROS):
Constitutional: no fevers or chills, has been feeling fatigued in the last week.
Head, ears, eyes, nose, throat: normal, vision unchanged, no oral pain or throat pain.
Neck: no neck pain or tightness.
Cardiovascular: no palpitations, orthopnea or paroxysmal nocturnal dyspnea, mild lower extremity swelling bilaterally.
Pulmonary: mild shortness of breath with the pain, no cough.
Gastrointestinal: no diarrhea, constipation, melena or hematochezia, no abdominal pain, nausea or vomiting.
Endocrine: No polyuria, polydipsia, or polyphagia.
Genitourinary: normal urine stream, no hesitancy, urgency or frequency, no discharge, no genitourinary pain.
Musculoskeletal: no arthralgias, no joint swelling noted, no focal weakness.

Neuro: no headache, photophobia, change in vision, focal weakness or numbness. Psych: no homicidal or suicidal ideations, normal thought patterns, no delusions.
Skin: occasionally “sweaty” and clammy with the pain episodes, otherwise no rashes or skin changes.

Past Medical History:
Hypertension, diagnosed 5 years ago, well-controlled on oral monotherapy
Gastroesophageal reflux disease, diagnosed 20 years ago, takes TUMS as needed

Past Surgical History:
Cholecystectomy 3 years ago, no complications

Medications:
Hydrochlorothiazide 25mg daily
Tums prn
Ibuprofen prn

Allergies:
Penicillin

Family History:
Mom: Diabetes type II, living, has left below the knee amputation
Dad: Coronary artery disease, died of massive heart attack age 61

Social history:
Lives at home with spouse. Retired last year from long career as mail carrier. Has two dogs in the house. Smoked 1 PPD for 18 years but quit 2 years ago. Drinks occasional alcohol at social functions. Occasionally uses cocaine. Last cocaine use was birthday party 2 weeks ago. No other drugs. Sexually active with spouse and monogamous. Has had past encounters with 7 partners without condom use.

Physical Exam:
Temperature 98.7 (oral); heart rate 112; respiratory rate 18; blood pressure 135/65 left arm, 138/70 right arm; oxygen saturation 92% on room air
Weight 90kg

General: obese, no apparent distress.
Head, ears, eyes, nose, throat: Normocephalic, atraumatic, moist mucous membranes, oropharynx clear, pupils equally round and reactive to light, extraocular movements intact.
Neck: supple, no LAD, thyromegaly, carotid bruit or mass.
Cardiovascular: **tachycardic, regular rhythm**, no murmur, no gallops or rubs.
Respiratory: no distress, normal lung sounds bilaterally.
Abdominal: soft, non-tender, non-distended, normoactive bowel sounds, no organomegaly.

Extremities: no cyanosis or clubbing, **1+ pitting edema to lower extremities**, pulses 2+ throughout upper and lower extremities.
Neurologic: non-focal, cranial nerves 2-12 intact, strength 5/5 in upper and lower extremities, sensation intact to light touch.
Psychiatric: normal.
Genitourinary: deferred.
Back: no midline tenderness, full range of motion.
Musculoskeletal/Skin: no arthritis, no rashes noted on skin.

Significant Findings of Ancillary Studies (see document "Patient Results")
Complete Blood Count (CBC): Unremarkable
Complete metabolic panel (CMP): Unremarkable
D-dimer: negative
Troponin: 1.53 (normal <0.035)
Chest X-ray: Mild vascular congestion without cardiomegaly
Electrocardiogram (ECG):

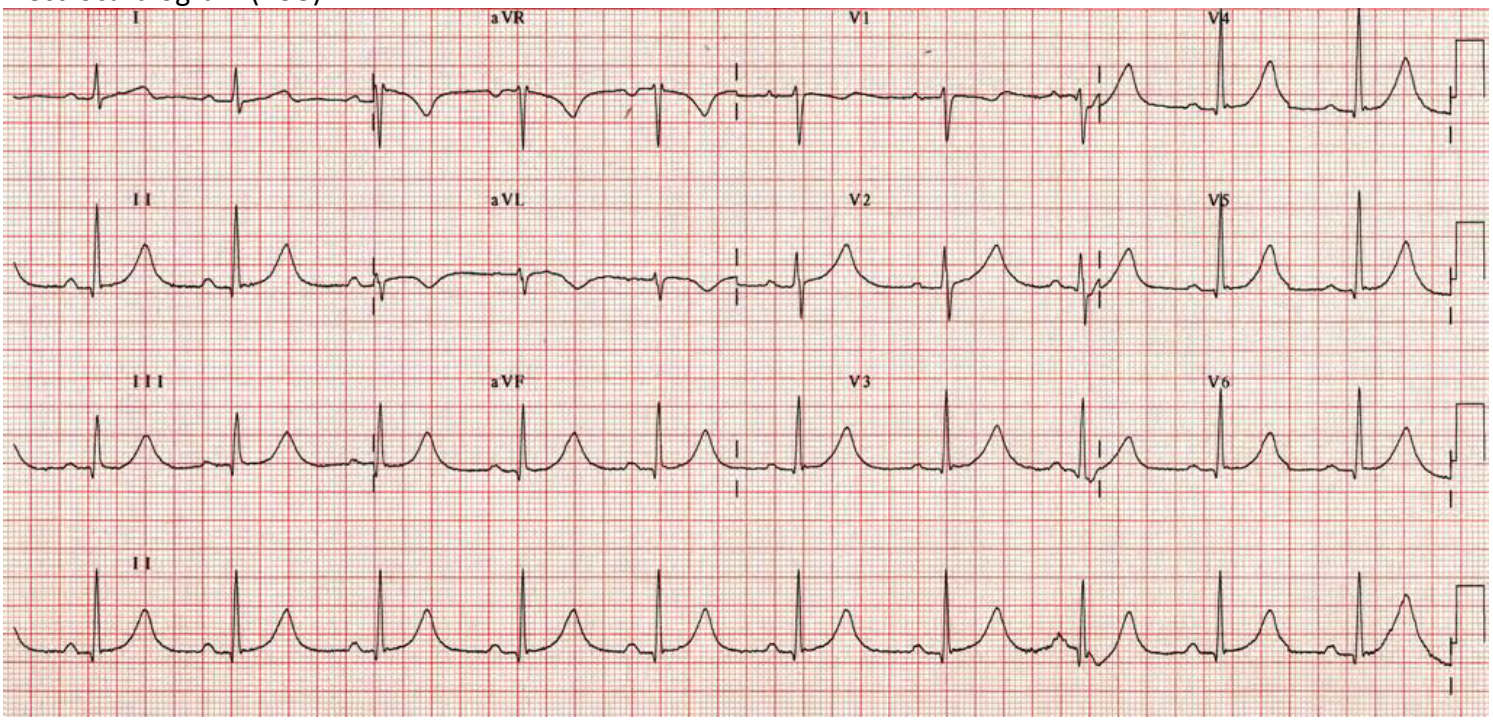

Image source: Allely P. Benign early repolarisation. In: Life in the Fastlane. https://lifeinthefastlane.com/what-is-benign-early-repolarisation/. Updated July 31, 2011. Accessed June 15, 2018. CC BY-NC-SA 4.0.

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https://doi.org/10.21980/J8C04H

Appendix Y:
History & Physical Standardized Patient Session: Dyspnea

Patient Identifier:
Terry Klothenstein
Age: 21
(Note, this case is written with a female patient but could be run as male with male SP if desired)

Location: ED

Chief Complaint: Dyspnea

History of Present Illness:
Terry is a 21-year-old female with a history of type I diabetes mellitus and mild intermittent asthma presenting to the emergency department with shortness of breath. It began three days ago, has been progressive, initially noticed only with activity such as going up steps, but now occurring at rest. There is an associated cough, initially dry, now productive of sputum, occasionally blood- tinged, no frank hemoptysis. She describes worsening cough when lying flat, as well as an episode of waking up dyspneic early this morning. It was after this episode that she finally came to the ED. She denies fever, but has felt chilled in the last two days, and "sweaty," particularly at night, although she has not taken her temperature. Terry notes chest pain, more left-sided than right, worse on deep inspiration, no association with activity, seems to be worse with coughing. No association of chest pain with meals. No lower extremity edema noted, no recent change in weight, no change in urinary symptoms, bowel or bladder habits, or skin changes. Has noted some intermittent wheezing, boyfriend has noticed as well sometimes with the cough. She has also noted diffuse "body aches," with feeling of fatigue and loss of energy with current illness.

There was no recent travel, no sick contacts, and no new medications. Of note, she had an old albuterol inhaler at home from two years ago that she tried using without improvement in her breathing. Has tried over the counter Tylenol cough and cold without relief.

Of note, Terry was hospitalized two weeks prior for five days with an acute episode of diabetic ketoacidosis (DKA). She had been working and going to school and stated the stress of both had "caught up to her," and she was missing a lot of insulin doses and hadn't been refilling her medications. She reports compliance with medications since discharge.

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04K

Review of systems (ROS):
Constitutional: feeling "poor," low energy, fatigued, loss of appetite.
Head, ears, eyes, nose and throat: normal, vision unchanged, no headache, no oral pain or throat pain.

Neck: no neck pain or tightness.
Cardiovascular: no palpitations, no radiation of the pain into arms or neck, + orthopnea and paroxysmal nocturnal dyspnea as above.
Pulmonary: wheezing as above intermittently, + cough and sputum as above.
GI: + decreased appetite, no abdominal pain, diarrhea, constipation, or blood in stools.
Endocrine: blood sugars running 120-150 at home after hospital stay, recently have increased to low 200-250 range. No polyuria, polydipsia, or polyphagia.
Genitourinary: normal urine stream, no hesitancy, urgency or frequency, no discharge, no genitourinary pain.
Musculoskeletal: + generalized arthralgia and weakness diffusely, decreased ambulation, no focal weakness.
Neurologic: no headache, photophobia, change in vision, focal weakness or numbness noted.
Psychiatric: no homicidal or suicidal ideations, normal thought patterns, no delusions.
Skin: occasionally "sweaty" and clammy, particularly at night; otherwise no rashes or skin changes.

Past Medical History:
1) Type 1 diabetes mellitus – diagnosed at age 5, multiple episodes of DKA, most recently 2 weeks prior, last hemoglobin A1C 9.7
2) Mild intermittent asthma – also since childhood, sometimes needs albuterol inhaler during winter months or during upper respiratory infections

Medications:
Lantus 50 units nightly
Humalog 15 units with meals and a sliding scale
Albuterol MDI prn – last time refilled inhaler was 2 years prior
Tylenol Cough and Cold – with current illness, tried 2-3 times without relief

Allergies: no known drug allergies

Family history:
Mother – alive; type I diabetes mellitus, coronary artery disease with myocardial infarction at age 40
Father – alive; hypertension, hyperlipidemia
Sister – alive; healthy 15-year-old

Social history:
Lives at home with mother, father and younger sister. Has recently had to drop out of school as unable to keep up with the schoolwork and job. Smokes ½ pack per day for the past two years. Alcoholic beverages "occasionally" with friends on weekends. Smokes marijuana occasionally, but denies other illicit drug use. She spent 6 months in jail last year for marijuana possession and some other offense that is undisclosed. Sexually active with boyfriend and monogamous, has had past encounters with 7 partners without condom use.
No pets at home.

Immunization: Unknown, but thinks they are up-to-date. She remembers getting a Tetanus shot in jail last year. Did not receive the flu shot this year.

Physical Exam:
Temp 101.2
Heart rate 115
Respiratory rate 18
Blood pressure 115/65 left arm, 118/70 right arm
Oxygen saturation 85% on room air, up to 90% on 4L nasal cannula
Weight 70kg

Generalized: **withdrawn, fatigued, appears to not feel well.**
Head, ears, eyes, nose, throat: normocephalic, atraumatic, **dry mucous membranes**, oropharynx clear, pupils equally round and reactive to light, extraocular movements intact.
Neck: supple, no LAD, thyromegaly, carotid bruit or mass.
Cardiovascular: **tachycardic, regular rhythm, soft 2/6 systolic ejection murmur heard best at the left sternal border without radiation**, no gallops or rubs.
Respiratory: **mild increased work of breathing, rhonchi noted throughout chest, scattered end expiratory wheezing noted throughout, bronchial breath sounds in upper and mid left lung field, decreased breath sounds at left base,** no egophony.
Abdomen: soft, non-tender, non-distended, normoactive bowel sounds, no organomegaly.
Extremities: no cyanosis, clubbing or edema, pulses 2+ throughout upper and lower extremities.
Neurologic: non-focal, cranial nerves 2-12 intact, strength 5/5 in upper and lower extremities, sensation intact to light touch.
Psychiatric: normal.
Genitourinary: deferred.
Back: no midline tenderness, full range of motion.
Musculoskeletal/Skin: **diaphoretic on exam with diffuse arthralgias**, no arthritis, no rashes noted on skin.

Significant Findings of Ancillary Studies (see document "Patient Results")
Complete Blood Count (CBC): elevated white blood cell (WBC) count at 16 with neutrophilic predominance
Complete metabolic panel (CMP): Hyperglycemia to 334 without anion gap or acidosis
Troponin: negative
Lactate: 1.0
Chest X-ray: left lower lobe infiltrate
Electrocardiogram (ECG): sinus tachycardia

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Appendix Z:
Patient Face-Sheets

Patient: Frederick Cheney
Age: 22

Chief complaint: Abdominal pain

Temperature 99.1 (oral)
Heart rate 120
Respiratory rate 18
Blood pressure 101/62 left arm, 108/65 right arm,
Oxygen saturation 99% on room air
Weight 65 kg

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Patient: Pat Harvey
Age: 57

Chief Complaint: Chest Pain

Temperature 98.7 (oral)
Heart rate 112
Respiratory rate 18
Blood pressure 135/65 left arm, 138/70 right arm
Oxygen saturation 92% on room air
Weight 90kg

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Patient: Terry Klothenstein
Age: 22

Chief Complaint: Shortness of breath

Temperature 101.2
Heart rate 115
Respiratory rate 18
Blood pressure 115/65 left arm, 118/70 right arm
Oxygen saturation 85% on room air, increases to 93% on 4L nasal cannula
Weight 70kg

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Appendix AA:
Patient Physical Exam Findings

Patient: Frederick Cheney
Age: 22

Chief complaint: Abdominal pain

Physical Exam Findings
Abdominal: No bowel sounds, no hernia palpated
Rectal: Normal
Genitourinary: Circumcised, normally descended testes bilaterally; no swelling discoloration or masses

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

DIDACTICS AND HANDS-ON CURRICULUM

Patient: Pat Harvey
Age: 57

Chief Complaint: Chest Pain

Physical Exam Findings
Extremities: 1+ pitting edema to lower extremities
Genitourinary: deferred.

DIDACTICS AND HANDS-ON CURRICULUM

Patient: Terry Klothenstein
Age: 22

Chief Complaint: Shortness of breath

Physical Exam Findings
Cardiovascular: tachycardic, regular rhythm, soft 2/6 systolic ejection murmur heard best at the left sternal border without radiation
Respiratory: mild increased work of breathing, rhonchi noted throughout chest, scattered end expiratory wheezing noted throughout, bronchial breath sounds in upper and mid left lung field, decreased breath sounds at left base, no egophony.
Genitourinary: deferred.
Musculoskeletal/Skin: diaphoretic on exam with diffuse arthralgias

Appendix AB:
Patient Results

Frederick Cheney (Abdominal Pain)

Component Results

Component	Value	Flag	Range & Units	Status
WBC	16.69	(H)	4.00-12.00 10(3)/mcL	Final
RBC	4.35	(L)	4.40-5.80 10(6)/mcL	Final
HEMOGLOBIN (HGB)	13.9		13.0-16.5 g/dL	Final
HEMATOCRIT (HCT)	43.3		38.0-50.0 %	Final
MCV	99.5	(H)	82.0-96.0 fL	Final
MCH	32.0		26.0-32.0 pg	Final
MCHC	32.1		31.0-36.0 g/dL	Final
PLATELET COUNT	314		140-440 10(3)mcL	Final
RDW	14.0		11.8-15.5 %	Final
MPV	10.5		8.0-12.6 fL	Final
NEUTROPHILS	78.3	(H)	40.0-68.0 %	Final
LYMPHOCYTES	13.1	(L)	19.0-49.0 %	Final
MONOCYTES	8.3		3.0-13.0 %	Final
EOSINOPHILS	0.1		0.0-8.0 %	Final
BASOPHILS	0.2		0.0-1.0 %	Final
ABSOLUTE NEUTROPHILS	13.07	(H)	1.40-5.30 10(3)mcL	Final
ABSOLUTE LYMPHOCYTES	2.19		0.90-3.30 10(3)/mcL	Final
ABSOLUTE MONOCYTES	1.38	(H)	0.10-0.90 10(3)mcL	Final
ABSOLUTE EOSINOPHIL	0.01		0.00-0.50 10(3)/mcL	Final
ABSOLUTE BASOPHILS	0.04		0.00-0.10 10(3)/mcL	Final

Component Results

Component	Value	Flag	Range & Units	Status
SODIUM	142		137-145 mmol/L	Final
POTASSIUM	3.7		3.5-5.1 mmol/L	Final
CHLORIDE	105		98-107 mmol/L	Final
CO2, VENOUS	28		22-30 mmol/L	Final
ANION GAP	9.0		<18.0 mmol/L	Final
GLUCOSE	82		70-99 mg/dL	Final
BUN	7		7-17 mg/dL	Final
CREATININE, BLOOD	0.74		0.60-1.00 mg/dL	Final
BUN/CREATININE RATIO	9	(L)	12-20 ratio	Final
TOTAL PROTEIN	7.4		6.3-8.2 g/dL	Final
ALBUMIN	3.9		3.5-5.0 g/dL	Final
A/G RATIO	1.1		1.0-2.2	Final
CALCIUM	9.0		8.4-10.2 mg/dL	Final
T BILI	1.2		0.2-1.3 mg/dL	Final
SGOT (AST)	32		14-36 U/L	Final
SGPT (ALT)	42		9-52 U/L	Final
ALKALINE PHOSPHATASE	51		36-126 U/L	Final
GFR, EST. NONAFRICAN	>60		>=60	Final
GFR, EST. AFRICAN	>60		>=60	Final

Component Results

Component	Value	Flag	Range & Units	Status
LIPASE	17	(L)	23-300 U/L	Final

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https://doi.org/10.21980/J8C04H

Urinalysis: + White blood cells without bacteria
Chest X-ray: Normal
Computed tomography of the abdomen and pelvis demonstrates an enlarged appendix with surrounding inflammatory changes consistent with appendicitis
Electrocardiogram (ECG): Normal
Vital signs remain stable.

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Pat Harvey (Chest Pain)

Component Results

Component	Value	Flag	Range & Units	Status
WBC	8.06		4.00-12.00 10(3)/mcL	Final
RBC	4.94		4.40-5.80 10(6)/mcL	Final
HEMOGLOBIN (HGB)	14.9		13.0-16.5 g/dL	Final
HEMATOCRIT (HCT)	43.8		38.0-50.0 %	Final
MCV	88.7		82.0-96.0 fL	Final
MCH	30.2		26.0-32.0 pg	Final
MCHC	34.0		31.0-36.0 g/dL	Final
PLATELET COUNT	283		140-440 10(3)mcL	Final
RDW	13.0		11.8-15.5 %	Final
MPV	10.4		8.0-12.6 fL	Final
NEUTROPHILS	80.1	(H)	40.0-68.0 %	Final
LYMPHOCYTES	12.9	(L)	19.0-49.0 %	Final
MONOCYTES	5.7		3.0-13.0 %	Final
EOSINOPHILS	1.2		0.0-8.0 %	Final
BASOPHILS	0.1		0.0-1.0 %	Final
ABSOLUTE NEUTROPHILS	6.45	(H)	1.40-5.30 10(3)mcL	Final
ABSOLUTE LYMPHOCYTES	1.04		0.90-3.30 10(3)/mcL	Final
ABSOLUTE MONOCYTES	0.46		0.10-0.90 10(3)mcL	Final
ABSOLUTE EOSINOPHIL	0.10		0.00-0.50 10(3)/mcL	Final
ABSOLUTE BASOPHILS	0.01		0.00-0.10 10(3)/mcL	Final

Component Results

Component	Value	Flag	Range & Units	Status
SODIUM	142		137-145 mmol/L	Final
POTASSIUM	3.7		3.5-5.1 mmol/L	Final
CHLORIDE	105		98-107 mmol/L	Final
CO2, VENOUS	28		22-30 mmol/L	Final
ANION GAP	9.0		<18.0 mmol/L	Final
GLUCOSE	82		70-99 mg/dL	Final
BUN	7		7-17 mg/dL	Final
CREATININE, BLOOD	0.74		0.60-1.00 mg/dL	Final
BUN/CREATININE RATIO	9	(L)	12-20 ratio	Final
TOTAL PROTEIN	7.4		6.3-8.2 g/dL	Final
ALBUMIN	3.9		3.5-5.0 g/dL	Final
A/G RATIO	1.1		1.0-2.2	Final
CALCIUM	9.0		8.4-10.2 mg/dL	Final
T BILI	1.2		0.2-1.3 mg/dL	Final
SGOT (AST)	32		14-36 U/L	Final
SGPT (ALT)	42		9-52 U/L	Final
ALKALINE PHOSPHATASE	51		36-126 U/L	Final
GFR, EST. NONAFRICAN	>60		>=60	Final
GFR, EST. AFRICAN	>60		>=60	Final

Component Results

Component	Value	Flag	Range & Units	Status
D DIMER	0.35		<0.50 mcg/mL FEU	Final

Component Results

Component	Value	Flag	Range & Units	Status
TROPONIN I	1.530	(H)	<0.035 ng/mL	Final

Component Results

Component	Value	Flag	Range & Units	Status
LIPASE	100		23-300 U/L	Final

CXR: Mild vascular congestion without cardiomegaly

EKG:

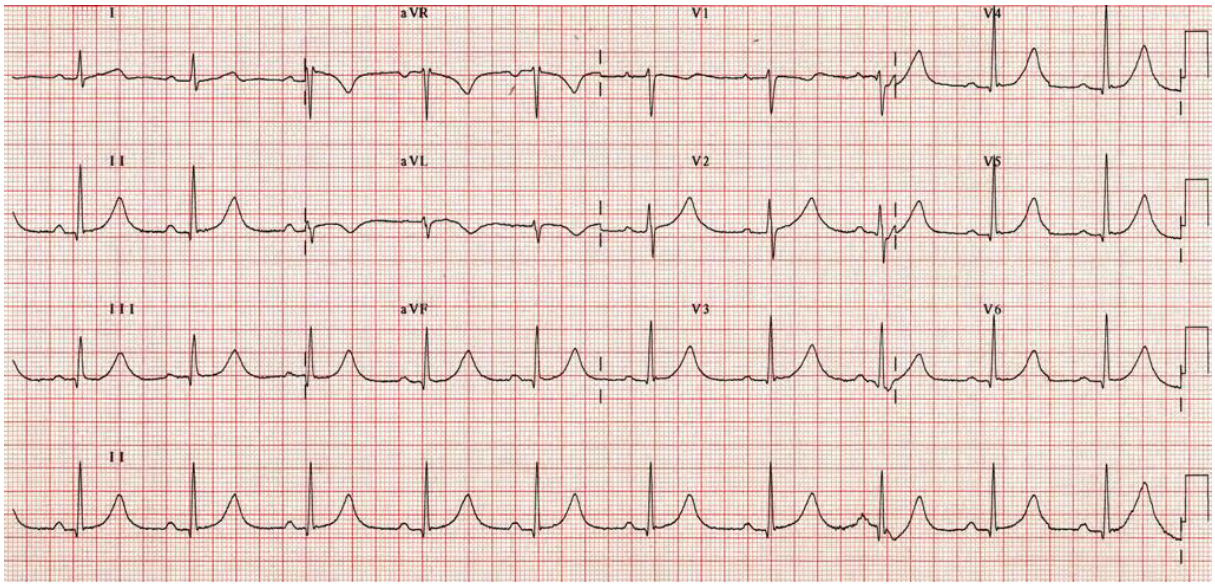

Image source: Allely P. Benign early repolarisation. In: Life in the Fastlane. https://lifeinthefastlane.com/what-is-benign-early-repolarisation/. Updated July 31, 2011. Accessed June 15, 2018. CC BY-NC-SA 4.0.

Pain resolves after pain medication provided in the ED, and has not recurred. Vital signs have remained stable with mild tachycardia.

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Terry Klothenstein (Dyspnea)

Component Results

Component	Value	Flag	Range & Units	Status
WBC	16.69	(H)	4.00-12.00 10(3)/mcL	Final
RBC	4.35	(L)	4.40-5.80 10(6)/mcL	Final
HEMOGLOBIN (HGB)	13.9		13.0-16.5 g/dL	Final
HEMATOCRIT (HCT)	43.3		38.0-50.0 %	Final
MCV	99.5	(H)	82.0-96.0 fL	Final
MCH	32.0		26.0-32.0 pg	Final
MCHC	32.1		31.0-36.0 g/dL	Final
PLATELET COUNT	314		140-440 10(3)mcL	Final
RDW	14.0		11.8-15.5 %	Final
MPV	10.5		8.0-12.6 fL	Final
NEUTROPHILS	78.3	(H)	40.0-68.0 %	Final
LYMPHOCYTES	13.1	(L)	19.0-49.0 %	Final
MONOCYTES	8.3		3.0-13.0 %	Final
EOSINOPHILS	0.1		0.0-8.0 %	Final
BASOPHILS	0.2		0.0-1.0 %	Final
ABSOLUTE NEUTROPHILS	13.07	(H)	1.40-5.30 10(3)mcL	Final
ABSOLUTE LYMPHOCYTES	2.19		0.90-3.30 10(3)/mcL	Final
ABSOLUTE MONOCYTES	1.38	(H)	0.10-0.90 10(3)mcL	Final
ABSOLUTE EOSINOPHIL	0.01		0.00-0.50 10(3)/mcL	Final
ABSOLUTE BASOPHILS	0.04		0.00-0.10 10(3)/mcL	Final

Component Results

Component	Value	Flag	Range & Units	Status
SODIUM	137		137-145 mmol/L	Final
POTASSIUM	3.6		3.5-5.1 mmol/L	Final
CHLORIDE	98		98-107 mmol/L	Final
CO2, VENOUS	25		22-30 mmol/L	Final
ANION GAP	14.0		<18.0 mmol/L	Final
GLUCOSE	334	(H)	70-99 mg/dL	Final
BUN	10		9-20 mg/dL	Final
CREATININE, BLOOD	0.89		0.70-1.30 mg/dL	Final
BUN/CREATININE RATIO	11	(L)	12-20 ratio	Final
TOTAL PROTEIN	7.3		6.3-8.2 g/dL	Final
ALBUMIN	3.8		3.5-5.0 g/dL	Final
A/G RATIO	1.1		1.0-2.2	Final
CALCIUM	9.5		8.4-10.2 mg/dL	Final
T BILI	0.9		0.2-1.3 mg/dL	Final
SGOT (AST)	19		17-59 U/L	Final
SGPT (ALT)	38		21-72 U/L	Final
ALKALINE PHOSPHATASE	137	(H)	38-126 U/L	Final
GFR, EST. NONAFRICAN	>60		>=60	Final
GFR, EST. AFRICAN	>60		>=60	Final

Component Results

Component	Value	Flag	Range & Units	Status
TROPONIN I	<0.012		<0.035 ng/mL	Final

Lactate: 1.0

Chest X-ray: left lower lobe infiltrate

Electrocardiogram (ECG): Sinus Tachycardia

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Appendix AC:
Patient Physical Exam Findings Checklists

Intern Name: _____

Frederick Cheney (Abdominal Pain)

Physical Exam Checklist

	Yes	No
Head, eyes, ears, nose, throat (HEENT)		
Cardiovascular		
Respiratory		
Abdomen		
Genitourinary (should request to do a testicular exam, SP can decline and observer can provide information)		
Extremities		
Back		
Other physical exam comments:		

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

DIDACTICS AND HANDS-ON CURRICULUM

Intern Name: _____

Pat Harvey (Chest Pain)

Physical Exam Checklist

	Yes	No
Head, ears, eyes, nose, throat (HEENT)		
Neck		
Cardiovascular		
Respiratory		
Abdomen		
Extremities		
Other physical exam comments:		

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

DIDACTICS AND HANDS-ON CURRICULUM

Intern Name: _____

Terry Klothenstein (Dyspnea)

Physical Exam Checklist

	Yes	No
Head, ears, eyes, nose, throat (HEENT)		
Neck		
Cardiovascular		
Respiratory		
Abdomen		
Extremities		
Other comments on physical exam:		

Krzyzaniak S, et al. Intern Preparedness Curriculum: An Orientation Curriculum to Prepare Emergency Medicine Interns for Residency. JETem 2018. 3(4):C1-84.
https://doi.org/10.21980/J8C04H

Appendix AD:
Day in the Life Milestone Standardized Patient Assessment Tool

Intern Name:					
CASE:	Chest Pain	Abd Pain	Shortness of Breath		
	Milestone Level 1a	Milestone Level 1b	To Achieve Milestone Resident MUST:	YES (X)	NO (X)
PC5*		Consistently asks patients for drug allergies*	Ask about allergies		
(SBP1)16	Adheres to standards for maintenance of a safe working environment		Wash hands		
(SBP3)18		Reviews medications for patients	Review medications		
(ICS1)22	Establishes rapport with and demonstrates empathy toward patients and their families		**RUCIS Q1* – score 2 or higher** Greet you warmly, interact in a friendly and polite manner throughout encounter		
		Listens attentively to patients and their families	**RUCIS Q3* – score 2 or higher** Listen without (or minimal) interruption; pay attention and respond appropriately		

* Revised UIC Communication and Interpersonal Skills Scale (RUCIS)[1] see Standardized Patient Feedback Form

DITL Milestone Standardized Patient Assessment Tool. Developed by Krzyzaniak S, et al. *JETem*. 2018.

1. Iramaneerat C, Myford CM, Yudkowsky R, Lowenstein T. Evaluating the effectiveness of rating instruments for a communication skills assessment of medical residents. *Adv Health Sci Educ Theory Pract.* 2009;14(4):575-594.

Appendix AE:
Day in the Life Patient Presentation Assessment Tool

Intern Name _____ **Evaluator** _____ **Date** _____

Note: Please use a score of 3 to indicate performance that is at the expected level for an intern (PGY1)

HISTORY

1. Chief complaint (CC) noted either before history of present illness (HPI) or as part of introductory sentence

1	2	3	4	5	Questions/Comments
No Chief complaint noted		**Chief complaint mentioned**		Chief complaint clear	

2. HPI starts with clear patient introduction including patient's age, sex, pertinent active medical problems and reason for presentation

1	2	3	4	5	Questions/Comments
No introductory sentence		**Intro included CC but missing some pertinent information**		Intro painted a clear and succinct picture of patient	□ too much □ too little

3. HPI is organized so that chronology of important events is clear

1	2	3	4	5	Questions/Comments
Sequence of events was unclear		**Sequence of major events is clear**		Sequence of all events is clear	

4. The past medical history, family history, social history, and review of systems include only elements related to presenting chief complaint.

1	2	3	4	5	Questions/Comments
Information has no clear connection to the acute medical problems		**Information adequately describes the patient's acute medical problems**		Information completely and concisely describes all acute problems	□ too much □ too little

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https://doi.org/10.21980/J8C04H

PHYSICAL EXAM (PEx) RESULTS

5. Begins with a general statement:

1	2	3	4	5	Questions/Comments
General statement poor or missing		**Mostly clear general statement**		Succinct general statement creates clear picture of patient	□ too much □ too little

6. Presents all vital signs (and growth parameters if patient is a child):

1	2	3	4	5	Questions/Comments
Vitals inappropriately incomplete		**Vital signs & growth parameters mostly complete**		All vitals signs/growth parameters given	□ too much □ too little

7. Includes a targeted PEx with the positive and negative findings that distinguish the diagnoses under consideration and any other abnormal findings

1	2	3	4	5	Questions/Comments
Either too much or too little information given		**Most important information is given**		All important elements of PEx given	□ too much □ too little

SUMMARY STATEMENT

8. Begins assessment with a summary statement that synthesizes the critical elements of the patient's history and PEx into one sentence

1	2	3	4	5	Questions/Comments
No summary statement or restatement of story without synthesis		**Most pertinent information synthesized; may repeat some unnecessary information**		Summary statement concisely synthesizes all key information	□ too much □ too little

ASSESSMENT AND PLAN

9. Provides an appropriate differential diagnosis (Ddx) ranked by severity of the acute problem(s):

1	2	3	4	5	Questions/Comments
No differential diagnoses are given		**A DDx is provided but omits key critical diagnoses**		A Ddx is provided & includes all relevant life threats and other likely diagnoses	□ too much □ too little

10. States the diagnostic/therapeutic plan that targets the acute problem

1	2	3	4	5	Questions/Comments
Patient plan is not described or is		**Plan for the patient addresses most**		Plan is complete and relates	□ too much □ too little

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https://doi.org/10.21980/J8C04H

unrelated to the differential diagnosis		**important issues, may omit lower acuity problems**		directly to the differential; all active issues are included	

CLINICAL REASONING/SYNTHESIS OF INFORMATION

11. The presentation included the pertinent positives and negatives from the history and physical exam to support the differential diagnosis and plan

1	2	3	4	5	Questions/Comments
Key positives (+) and negatives (-) were not included		**Key pertinent + and - presented at some point in the presentation**		The most pertinent + and - included at logical points	

12. At the end of the presentation I had a clear picture of this patient's situation and what needed to be done next

1	2	3	4	5	Questions/Comments
Much ambiguity remained		**Picture was clear for major issue(s)**		Picture was complete, all issues were clear	

GENERAL ASPECTS

13. Overall organization:

1	2	3	4	5	Questions/Comments
Poorly organized, hard to follow		**Mostly well-organized**		Very well organized	

14. Speaking style:

1	2	3	4	5	Questions/Comments
Difficult to understand		**Mostly understandable but may have some hesitations**		Understandable and articulate	

15. Overall assessment of presentation:

1 Needs significant help	2	3 Needs some help	4	5 **Mostly on target**	6	7 Above expectations	8	9 Well above expectations

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https://doi.org/10.21980/J8C04H

Appendix AF:
Day in the Life Milestone Faculty Assessment Tool

Intern Name:				
CASE: (Circle One)	Chest Pain	Abd Pain	Shortness of Breath	
	Milestone (all 1a)	**To Check YES Resident MUST:**	**YES (X)**	**NO(X)**
PC1	Recognizes abnormal vital signs	Note abnormal vital signs in presentation		
PC2	Communicates a reliable, comprehensive history and physical exam	Present a reliable, complete history & physical		
PC3	Determines the necessity of diagnostic studies	Explain reason(s) for each test ordered		
PC4	Constructs a list of potential diagnoses based on chief complaint and initial assessment	Provide at least 3 suitable differential diagnoses		
PC6	Recognizes the need for patient re-evaluation	**After test results are provided:** Describe a plan that addresses patient re-evaluation		
PC7	Describes basic resources available for care of the emergency department patient	Consult or admit to correct service		
PC8	Manages a single patient amidst distractions	Participate in the activity		
(SBP2)17	Describes members of ED team (e.g., nurses, technicians, and security)	**After plan presented, ask intern to list team members:** Check Yes if they include nurse and technician		
(SBP3)18	Uses the Electronic Health Record (EHR) to order tests, medications and document notes, and respond to alerts	**To be checked off by chart review faculty:** Sign into EHR, obtain info and enter charting info on their patient		
(ICS2)23	Participates as a member of a patient care team	Participate in the activity		

Additional Comments:

Appendix AG:
Day in the Life Standardized Patient Feedback Form

Intern Name: _____

Case: **Abdominal Pain** **Chest Pain** **Dyspnea**

UIC CIS 2009 (RUCIS)
Please choose the option that best describes how you feel toward the resident's communication skills. Some items also have a "not applicable" option. Select this option when the context of the case does not allow you to observe that aspect of the resident's performance.

1. Friendly communication

1 ( ) You did not greet me, or greeted me perfunctorily, or communicated with me rudely during the encounter.
2 ( ) Your greeting and/or behavior during the encounter was generally polite but impersonal or distant.
3 ( ) You greeted me warmly and communicated with me in a friendly, personal manner throughout the encounter.
4 ( ) Your greeting and overall communication were friendly and compassionate. Overall, you created an exceptionally warm and friendly environment that made me feel comfortable to tell you all of my problems.

2. Respectful treatment

1 ( ) You showed an obvious sign of disrespect during the encounter. E.g.: You treated me as an inferior.
2 ( ) You did not show disrespect to me. However, I observed some signs of condescending behavior. Although I believe it was unintentional, it made me feel that I was not at the same level with you.
3 ( ) You gave several indications of respecting me. If there was a physical exam, this includes draping me appropriately.
4 ( ) You were exceptionally respectful throughout the encounter. Your verbal and nonverbal communication showed respect for my privacy, my opinions, my rights, and/or my socioeconomic status, etc.

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https://doi.org/10.21980/J8C04H

3. Listening to my story

1 ( ) You rarely gave me any opportunity to tell my story and/or frequently interrupted me while I was talking, not allowing me to finish what I said. Sometimes I felt you were not paying attention (for example, you asked for information that I already provided).
2 ( ) You let me tell my story without interruption, or only interrupted appropriately and respectfully. You seemed to pay attention to my story and responded to what I said appropriately.
3 ( ) You allowed me to tell my story without inappropriate interruption, responded appropriately to what I said, and asked thoughtful questions to encourage me to tell more of my story.
4 ( ) You were an exceptional listener. You encouraged me to tell my story and checked your understanding by restating important points.

4. Honest communication

1 ( ) You did not seem truthful and frank. I felt that there might be something that you were trying to hide from me.
2 ( ) You did not seem to hide any critical information from me.
3 ( ) You explained the facts of the situation without trivializing negative information or possibilities (e.g., side effects, complications, failure rates).
4 ( ) You were exceptionally frank and honest. You fully explained the positive and negative aspects of my condition. You openly acknowledged your own lack of knowledge or uncertainty, and things you would have to consult with others. When appropriate, you also suggested I seek a second opinion.
0 ( ) **Not applicable.** There was no information for the clinician to provide.

5. Interest in me as a person.

1 ( ) You never showed interest in me as a person. You only focused on the disease or medical issue.
2 ( ) In addition to talking about my medical issue, you spent some time getting to know me as a person.
3 ( ) You spent some time exploring how my medical issue affects my personal or social life.
4 ( ) You were exceptionally interested in me as a person. You not only explored how my medical problem affects my personal and social life, but also showed your willingness to help me address those challenges.

6. Discussion of options/plans

1 ( ) You did not explain any options or plans, you just told me what you would do without asking for my opinion.
2 ( ) You explained options to me, but did not involve me in decision making. If you solicited my opinion, you just ignored it. You made all the decisions for me based on your medical opinion.
3 ( ) You discussed options with me, made recommendations, solicited my opinion regarding the options/plans, and incorporated my opinion into your medical planning.
4 ( ) You not only solicited my input, but also explored the reasons for my choice and showed your understanding and respect for my decisions by negotiating a mutually agreeable plan.
0 ( ) **Not applicable**. There were no decisions to be made in this case.

7. Encouraging my questions

1 ( ) You did not solicit questions, or frequently avoided my questions, or did not provide helpful answers.
2 ( ) You sometimes asked if I had questions, but seldom waited at least 5 seconds to allow me to formulate questions. You addressed my questions briefly without avoiding them.
3 ( ) You actively encouraged me to ask questions, paused to allow me to formulate them, and provided clear and sufficient answers to all of my questions.
4 ( ) You actively encouraged me to ask questions several times during the encounter, with sufficient wait time. You spent significant time and effort to answer my questions clearly and confirmed that I understood the answer and that my concerns were addressed.

8. Providing clear explanation

1 ( ) You rarely explained things to me; you did not help me better understand my situation.
2 ( ) You gave me only brief explanations of my situation; you did not help me understand what would happen next.
3 ( ) You gave me a full and understandable explanation of my situation, pertinent findings, and important next steps.
4 ( ) You gave me a full explanation of my situation, your thinking about it and your recommendation, and probed my understanding by letting me summarize pertinent information.
0 ( ) **Not applicable**. There was nothing to be explained in this case.

9. Physical examination

1 ( ) You never or rarely warned me about what you were going to do with my body. You also never or rarely explained what you found from the physical examination.
2 ( ) You did not warn me about what you were going to do with my body, OR did not explain to me pertinent findings (both negative and positive) from your physical examination.
3 ( ) You told me what you were going to do to my body AND described what you found.
4 ( ) You helped me understand clearly what you were going to do to my body. You also provided clear explanation of what you found from the physical examination and the implications of your findings for my situation.
0 ( ) **Not applicable**. There was no physical examination in this case.

10. Appropriate vocabulary

1 ( ) You used vocabulary that was too simple or too complex for me, or frequently used medical terms without explaining them to me. Sometimes I could not understand what you said to me without asking for explanations of terms you used.
2 ( ) Your vocabulary was generally appropriate but you sometimes inadvertently used medical terms without explaining them to me.
3 ( ) Your vocabulary was appropriate and if needed you provided brief explanations of any medical terms you used without my prompting.
4 ( ) Your vocabulary was appropriate and you always provided clear and full explanation of relevant medical terms you used. In addition, you helped me better my understanding of my condition with the medical terms you explained to me.

11. Sensitive subject matters (e.g., sexual history, tobacco/alcohol/drug use, religious/cultural issues, giving bad news, or difficult emotional states)

1 ( ) You never warned me before approaching sensitive subject matters. You seemed judgmental and clearly expressed your disapproval of my positions or feelings, making me feel uncomfortable about discussing these subjects or feelings with you.
2 ( ) You were careful and nonjudgmental in discussing sensitive subject matters. However, you did not express understanding of my feelings and did not provide much emotional support.
3 ( ) You were sensitive about discussing difficult subjects and were respectful of my feelings. I never sensed that you were judgmental or disapproving of my positions or feelings on these subjects. You showed empathic understanding of my position or feelings and provided appropriate emotional support.
4 ( ) You were unusually empathic, sensitive, and respectful of me and of my feelings and provided exceptional emotional support. In addition, you verbally reflected these back to me (e.g., “You sound sad”) to show your understanding.
0 ( ) **Not applicable**. There were no sensitive subject matters in this case.

12. Closing the encounter

1 ( ) You ended the session abruptly without discussion of next steps or follow up.
2 ( ) You briefly explained what to expect next, but left out essential elements such as a summary of the session and your assessment, the timeline for next steps, and/or asking if I had any questions.
3 ( ) You summarized the session and your assessment and fully clarified next steps. You asked if I had any questions about the plan.
4 ( ) In addition to summarizing the session and clarifying plans, you provided a safety net by explaining possible unexpected outcomes and when and how to seek help, and/or asked about any possible barriers to the plan, and/or affirmed my agreement and commitment to the plan.

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https://doi.org/10.21980/J8C04H

13. Receptiveness to feedback

1 ( ) You did not seem open to my feedback about your performance. You responded defensively or dismissively to many of my comments.
2 ( ) You listened to my feedback agreeably but passively. You did not actively participate during the feedback session.
3 ( ) You were able to describe some of your own effective and ineffective behaviors, were attentive to my comments, and had an open discussion with me about alternative behaviors.
4 ( ) You actively solicited additional feedback and showed signs of integrating my feedback into your behavioral repertoire. For example, you tried to role-play the communication techniques I suggested.
0 ( ) **Not applicable**. I provided no feedback.

14. Do I want to see you again as my personal physician?

1 ( ) I did not feel comfortable in communicating with you at all. I would rather see a different physician.
2 ( ) I think you were okay in general and might come see you again.
3 ( ) I was impressed by the way you communicated with me. I would like to see you again.
4 ( ) I was very impressed with you. I think you are one of the best physicians I have ever seen. I would feel very comfortable discussing any medical problems with you, and would recommend you to my friends.

15. Please add additional comments here

Yes/No
Asked about Allergies
Wash hands prior to contact (foam OK)
Reviewed medications with you

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Appendix AH:
Day in the Life Consultation Assessment Tool

Intern Name _____ **Evaluator** _____ **Date** _____

Behavioral Action	Yes	No
1) Introduces self		
2) Introduces rank and service		
3) Confirms name of consultant		
4) Confirms consultant's level of training		
5) Gives a clear and concise story		
6) Gives an accurate recount of case detail (has the chart nearby for exact vitals labs)		
7) Speaks clearly		
8) Specifies the exact need for consultation		
9) Specifies timeframe for consultation		
10) Open to consultant's recommendations		
11) Reviews and repeats care plan to consultant		
12) Thanks consultant		

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