Taskforce Update: PGY-1 Curriculum Education Tools

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1) Review the Common Program Requirements (CPRs) for the Urology Residency Program, especially with regard to the new PGY-1 training year
2) Develop a Common Assessment Toolkit (CAT) for SAU program directors regarding the PGY-1 Urology training, specifically
   ✓ The goals and objectives for the PGY-1 urology trainee
   ✓ The orientation and potential boot camp materials essential to the success of the PGY-Urology trainee
   ✓ The faculty development necessary to train the PGY-1 Urology trainee
3) Render recommendations to the SAU board of directors regarding your analysis of the PGY-1 Urology training year.
4) Develop common tools for programs to succeed in the new Section VI of the CPRs
Process

• Review CPRs
• Gap Analysis
  – Cohort of PGY-2 residents attending Basic of Laparoscopic Urologic Surgery (BLUS™) course
• Refine Scope
  – Telecon
• Collection of PGY-1 curricula tools
• Compilation, prioritization and categorization of data
• Draft Report
Gap Analysis

• Cohort: 56 PGY-2s and 11 faculty facilitators attending BLUS™ course (Richstone, Veneziano)

• Venue: AUA Basic Laparoscopic Urological Skills (BLUS) Course
  – Thursday, June 7, 2018
  – Philadelphia, PA

• Methods:
  – Focus Groups with faculty members and PGY-2s discussed and collated responses related to the gaps in their PGY-1 training.
  – Formal collated report of open-ended responses provided by AUA.
Gap Analysis-Results

PGY-2 “Perceived gaps in technical skills training” for PGY-1s

- **Bedside procedures**
  - Cystoscopic catheter placement
  - Priapism management
  - Point of Care Ultrasound (POCUS)
  - Suturing/Knot-tying
  - Female Pelvic Exam

- **OR procedures**
  - Cystoscopy/stenting
  - Tissue dissection
  - Instrument Identification
  - Tube Management
  - Laparoscopic/Robotic assist
Gap Analysis-Results

• PGY-2 “Perceived gaps in **non-technical** skills training” for PGY-1s*
  – Patient safety event reporting
  – Ethics
  – Professionalism training from **EXPERTS (not residents)**
  – Formal patient communication training from **EXPERTS**
    • De-escalation
    • Managing pain control
    • Managing psycho-social issues
  – Formal interprofessional team communication training from **EXPERTS**
    • De-escalation
    • Closed-loop communication
    • Shared mental models
    • Leadership Transfer
    • CUS language

*Required in new **Section 6 of CPR**: Consider adding Quality Improvement processes training
Gap Analysis-Results

• PGY-2 Perceived gaps in “logistical training” for PGY-1s
  – Formal OR orientation
  – Formal EMR orientation
  – Organized off-hours list of resources
Gap Analysis-Results

• PGY-1 Resources available to address gaps
  – Technical skills
    • Most (but not all) programs have box trainers for fundamental skills
    • Few programs have partial task trainers
    • Some (but not all) programs have access to at least 1 animal lab session
    • Very few programs use manikins
    • Some (but not all) programs have access to at least 1 cadaver lab session
    • Some (but not all) programs have access to a DaVinci robotic simulator
      – Several programs described a competency based curriculum (90%) to “ticket” to OR
    • Very few programs using validated assessment tools/modalities other than milestones
      – OSATS/CSATS
      – GEARS
      – GOALS

Key finding: VARIABILITY amongst programs
Gap Analysis-Results

• PGY-1 Resources available to address gaps
  – Non-Technical skills
    • None describe use of Standard OSCE exams during PGY-1 year.
    • Only one program described a formal TEAM STEPPS program.
    • Not using manikins for this (though other specialties do)

Key finding: VARIABILITY amongst programs
Gap Analysis-Results

• PGY-2 perceived **barriers** of PGY-1 year
  – Lack of 24-hours access to simulation centers
  – Lack of protected time for faculty to teach and residents to learn
  – Money (almost all mentioned this)
  – Faculty-buy-in (almost all mentioned this)
  – Culture
  – Valuable feedback
  – Low case-numbers
Gap Analysis-Results

• PGY-2 recommended solutions to barriers
  – Formal curriculum
  – More protected time for faculty and residents
  – Just-in-time OR evaluations
  – More funding devoted to program
  – Access to training centers/resources
Collection of R-1 Curricula/Tools

University of Washington
University of Minnesota
Johns Hopkins University
University of Michigan
Hofstra/Northwell
Compilation, prioritization and categorization of data-Methods

• Committee members consulted with Program Directors and submitted PGY-1 materials.

• Materials were compiled and reviewed by several committee members and prioritized as it relates to relevance for the CPRs for Urology.

• Materials were categorized into
  – Cognitive/decision making skills
  – Psychomotor skills
  – Nontechnical skills (Communication/Professionalism)
ACS APDS

**Phase 1**

**Course Outline**
- Module 1: Asepsis and Instrument Identification
- Module 2: Knot Tying
- Module 3: Suturing
- Module 4: Wound Closure and Skin Flaps
- Module 5: Skin Grafts
- Module 6: Urethral Catheterization
- Module 7: Airway Management
- Module 8: Chest Tube Insertion
- Module 9: Central Line Insertion
- Module 10: Surgical Biopsy
- Module 11: Laparotomy Opening and Closure
- Module 12: Basic Laparoscopy Skills
- Module 13: Advanced Laparoscopy Skills
- Module 14: Hand-Sewn Bowel Anastomosis
- Module 15: Stapled Bowel Anastomosis
- Module 16: Arterial Anastomosis

**Target Audience**
Residents early in their surgical training

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**Phase 3**

**Learning Objective**
Upon completion, the learner will be capable of working in teams to ensure successful patient outcomes across a variety of topics.

**Course Outline**
- Module 1: Teamwork in the Trauma Bay
- Module 2: Postoperative Hypotension
- Module 3: Laparoscopic Crisis
- Module 4: The Preoperative Briefing
- Module 5: Laparoscopic Troubleshooting
- Module 6: Postoperative Pulmonary Embolus
- Module 7: Postoperative MI (Cardiogenic Shock)
- Module 8: Latex Allergy Anaphylaxis
- Module 9: Patient Handoff
- Module 10: Retained Sponge on Postop Chest X-Ray

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[Image: American College of Surgeons logo]
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Results - Cognitive/decision making

• Patient and workplace safety
• Understand general preoperative assessment concerns
• Understand pain management strategies
• Know protocols for unresponsive and agitated patients
• Understand respiratory management
• Understand and demonstrate principles of nutritional support
• Understand and perform fluid and electrolyte management
• Understand and appropriately recognize cardiac conditions
• Know the environmental causes for urologic malignancies, risk factors for stone disease, risk factors for urinary tract infections
Results-Cognitive/decision making

- Knowledge of fundamental radiation safety, laser safety, OR safety protocols
- Foundation of knowledge within the field of urology
- Identify and manage common perioperative complications (e.g. DVT, post-operative fever, cardiac arrhythmia, ileus, SSI) and begin to relate these to urology-specific conditions (e.g. tachycardia following RPLND)
- Identify normal and abnormal laboratory, imaging and other diagnostic results
- Identify and know the management of emergent perioperative and urologic conditions
  - Fournier’s
  - Testicular torsion
  - Septic, obstructing stone
  - Trauma
  - Priapism
  - Pulmonary Embolism
  - Post-op MI
  - UroSepsis
Results-General Psychomotor skills

• Open Skills
  – Instrument ID and Handling
  – Knot-tying
    • Two handed knots including surgeon’s knot
    • One handed knots
    • Tie on a passer/suture ligature
    • Tie in a hole/cavity
  – Suturing
    • Simple interrupted
    • Horizontal mattress
    • Vertical mattress
    • Running, simple, subcuticular
    • Interrupted subcuticular
    • Pursestring
Results-Urology-specific psychomotor skills

- Routine and difficult placement of foley catheter
- Rigid and flexible cystoscopy/stenting
- Percutaneous and open SPT placement
- Cystoscopy bladder biopsy
- Basic Ureteroscopy
- Cystolithalopaxy
- Corporal irrigation for priapism
- Adult circumcision
- Hydrocelectomy
- Orchietomy
- Male and Female Pelvic Exam
- Basic Laparoscopy (BLUS)
Results-Nontechnical skills (ACS)

- Communicate effectively with patients and families
  - Communicate directly and via other team members
  - Working knowledge of urology patients
  - Familiarity with family/friends and dynamics
  - Strategies for code status discussions, DPOA, etc.
Results-Nontechnical skills (ACS)

- Discriminate various psychological stress responses to illness
  - Identify and address patient and family needs
- Comply with HIPAA and patient confidentiality
  - Complete all required training
  - Demonstrate compliance at all times
Results-Nontechnical skills (ACS)

• Demonstrate GU exam sensitivity and potential need for additional considerations including asking permission to examine, need for chaperone, explaining the examination.
• Demonstrate ability for basic counseling of patients on common urologic conditions (e.g. BPH, urinary incontinence, erectile dysfunction, stone disease)
• Write and communicate accurate discharge instructions, medications, activity restrictions and follow up details including timing/imaging/labs to be ordered
• Knowing names of staff members with regular interaction
• Actively teach, communicate with, advocate for, and include medical students.
• Demonstrate ability to say “I don’t know”
Recommendations for PGY-1s

• **Formalize the curricula**
  – Adopt all or part of the **ACS APDS Phase 1,3** (some of this may be more appropriate for PGY-2)
    • [https://www.facs.org/education/program/resident-skills](https://www.facs.org/education/program/resident-skills)
  – In addition: Incorporate findings from this report after vetting with broader SAU
  – Make it competitive/fun (Make Gold, Silver, Bronze levels of achievement)

• **Mandatory use of formative assessments**
  – OSATS, GEARS, GOALS, checklists, CSATS, Data-driven simulators
Recommendations for PGY-1s

• If available use **models** with validity evidence for PGY-1s
  – **Mandate the use of a simulated “model”** and add “access to facilities and models for independent practice” to the list of **Resources**
  – Leave *type* of open/flexible to the individual program
  – Should at least consider leveraging
    • Non-technical skills: **TEAM STEPPS**, Standardized patients, in situ techniques and **full human simulators**
    • Technical skills: Synthetic simulators, animal tissue, cadavers
THANK YOU!

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