Clinical Readiness Program: Combat Casualty Care KSAs

USU
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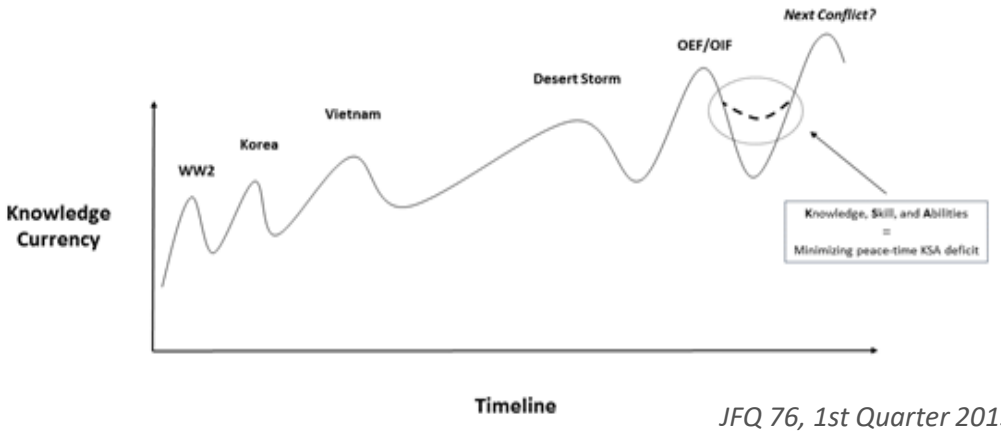
Problem: Perishable Skills

The current fragmented approach to expeditionary specialty skills training, refinement and retention in the MHS is not sufficient to maintain critical wartime combat casualty care skill sets

We recognize, however, the discordance between the skills we train for in peacetime against the requirement in war. Identifying approaches to remain proficient in critical skills is a challenge **for Navy Medicine.** (BUMED SSG Critical Skills Sustainment)

Pre-deployment training surveys, observations, insights, and lessons (OIL) indicate that clinical specific pre-deployment training provided to deploying personnel does not consistently and/or adequately prepare individuals to quickly assume their medical duties while deployed. (MEDCOM OPORD 17-17)



JFQ 76, 1st Quarter 2015

KSAs 101

- KSAs are the specialty-specific Knowledge, Skills, and Abilities utilized by the expeditionary clinician
- KSAs were developed by clinicians based on JTS CPGs, case registries, and relevant literature
- Mapping KSAs to peacetime workload yields a readiness indicator (KSA score) for each clinician, MTF, and market
- Scores do not determine deployment readiness, but they help Commanders make decisions regarding deployment by optimizing the readiness of their clinicians and MTF

KSAs provide a core metric to focus the Direct Care System on readiness.
Surgery generates readiness by not only training the surgeon, but the entire system.

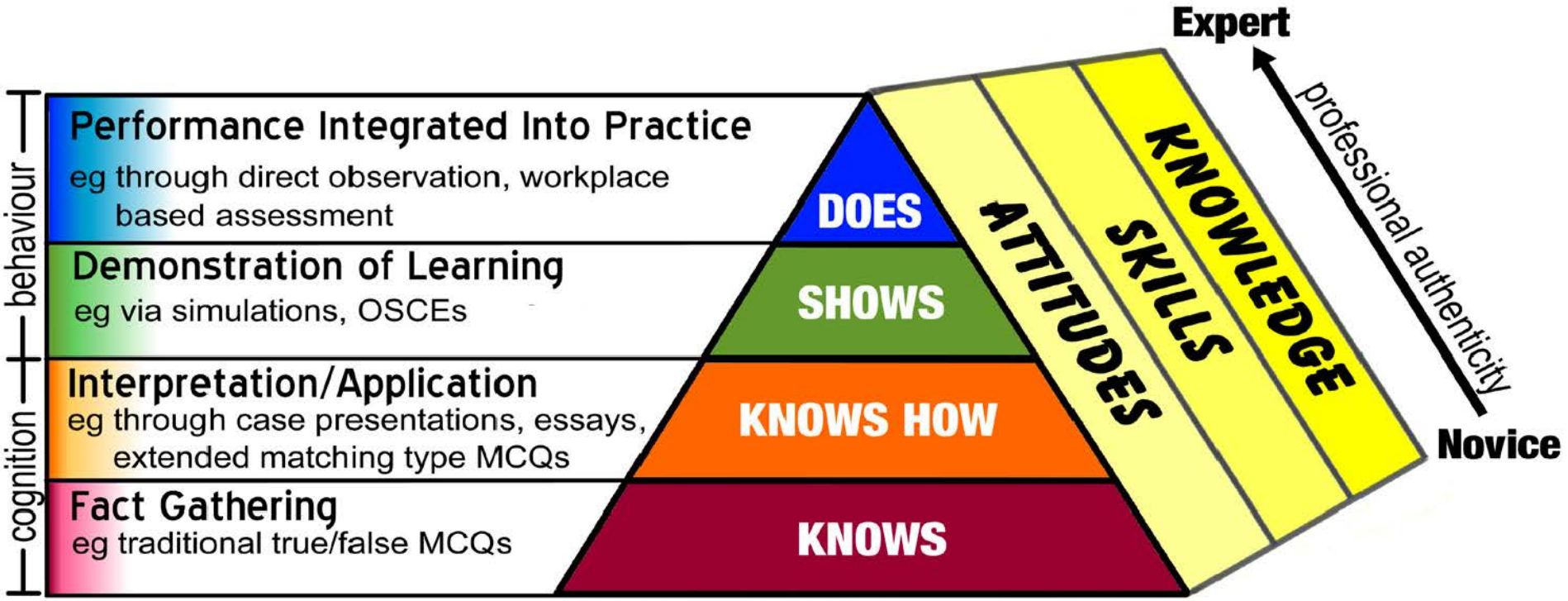
Tiered Approach to Clinical Skills

- Core Clinical Competence
  - Primary board certification
  - Specialty Maintenance of certification (MOC)
  - Hospital privileges
  - Participation in ongoing hospital CQI activity.
- [Joint] Military Medical Skills
  - Universal skills that all military healthcare providers deploying to a war zone should have.
    - TCCC and ATLS-OE
- [Joint] Essential KSAs (Knowledge, Skills, Abilities) ***Focus of this Effort***
  - Define the knowledge base, skills, abilities needed for the provider and to develop means of assessing both cognitive and procedural tasks
- [Service-specific] Military Medical Skills
  - Skills required to perform key tasks and work in service-specific clinical environments and platforms
    - Surface and undersea care, dive medicine, CCAT

Service Specific Requirements added to common KSAs

MILLER'S PRISM OF CLINICAL COMPETENCE (aka Miller's Pyramid)

it is only in the "does" triangle that the doctor truly performs



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ACGME Based Methodology

Review of JTS CPGs, R2 Registry, References

Grouped into 8 Expeditionary Domains

Wound & Amputation /Fx Mgt	Head and Spine Injury	Torso Trauma
Management of War Wounds	Cervical and TL Spine Injury	Pelvic Fracture Care
Compartment Syndrome and Fasciotomy	Concussion / mTBI Management	Blunt Abdominal Trauma
Amputation	Neurosurgical Management	Damage Control Surgery (ABD)
Burn Care	Cervical Spine Evaluation	Damage Control Surgery (Chest)
High Bilateral Amputations	Management of Severe Head Injury	Damage Control Surgery (Neck)
Extremity Trauma/ Hands and Feet		Thoracic Trauma
		Wartime Vascular Injury

Transfusion and Resuscitation	Airway and Breathing	Critical Care/Prevention
Frozen Blood	Trauma Airway Management	Hypothermia Prevention
Damage Control Resuscitation	Acute Respiratory Failure	Preventaion of DVT
Fresh Whole Blood	Trauma Anesthesia	Catastrophic Care
Inj Doc Resus Record	Inhalational Injury	Infection Control
REBOA for Hemorrhagic Shock		Management of Pain/Anxiety/Del
Emergency Thoracotomy		Critical Care additional

Military Other	Universal Domains
UXO Management	Systems Based Practice
TCCC/ Prehospital Care	Practice Based Learning and Improvement
EPW & Detainee Care	Interpersonal and Communication Skills
Obstetric / GYN Acute Care	Professionalism
Pediatric Trauma	
In Theater Transport	
Clinical Mgt of Mil Working Dogs	
Initial Care of occular/adnexal injuries	
Joint Trauma System	

- **Developed by a Tri-Service team of 14 military surgeons with deployment experience facilitated by the ACS**
- **Educationally-based methodology exportable to all critical specialties**

Uniformed Services University

Combat Casualty Care Team

KSA Blueprint Session Scope

- Tri-Service representation

- Specialties involved

General Surgery	**Anesthesia** (MD/CRNA)	**Orthopedic Surgery** (MD)
Critical Care (MD, RN) Role 3 only	**Emergency Medicine** (MD, RN)	

KSA Blueprint Session

- Defined Role 2+ expeditionary clinician by Specialty
- Defined scope of expeditionary practice by Specialty
- Utilized SME, JTS CPGs, case logs and external materials to determine necessary down-range skills
- Developed ~2,800 KSAs organized into 52 Domains by Specialty

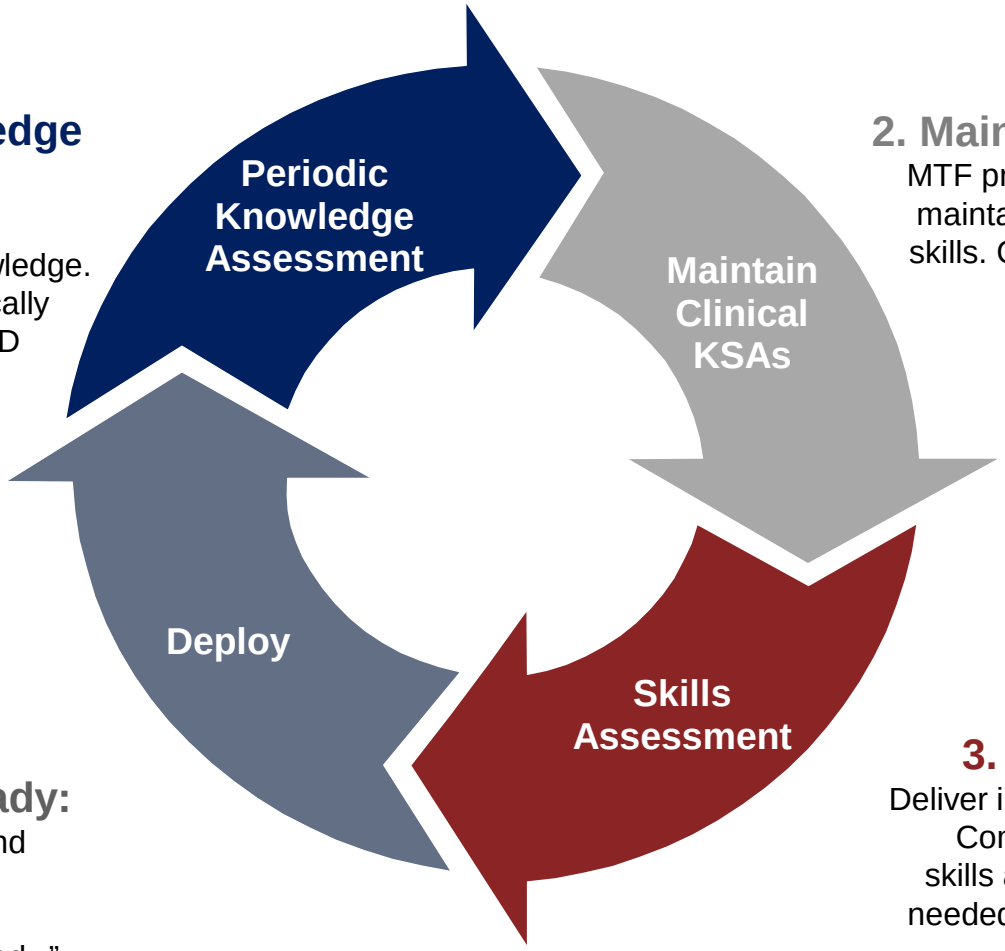
Gen Surg 487 KSAs 8 Domains	***Ortho Surgery*** 281 KSAs 5 Domain	***ED*** 486 KSAs 8 Domains
Anesthesia 350 KSAs 7 Domains	***CC Nursing*** 523 KSAs 8 Domains	***ED Nursing*** 352 KSAs 8 Domains
	Critical Care 325 KSAs 8 Domains	

Informs NDAA Sections 703, 705, 706, 708, 725

Common KSAs Inform UME and GME

Clinical Readiness Lifecycle

1. Periodic Knowledge Assessment:
Individual assessment of expeditionary clinical knowledge. KSA baseline lists periodically updated via the JTS/JTTED

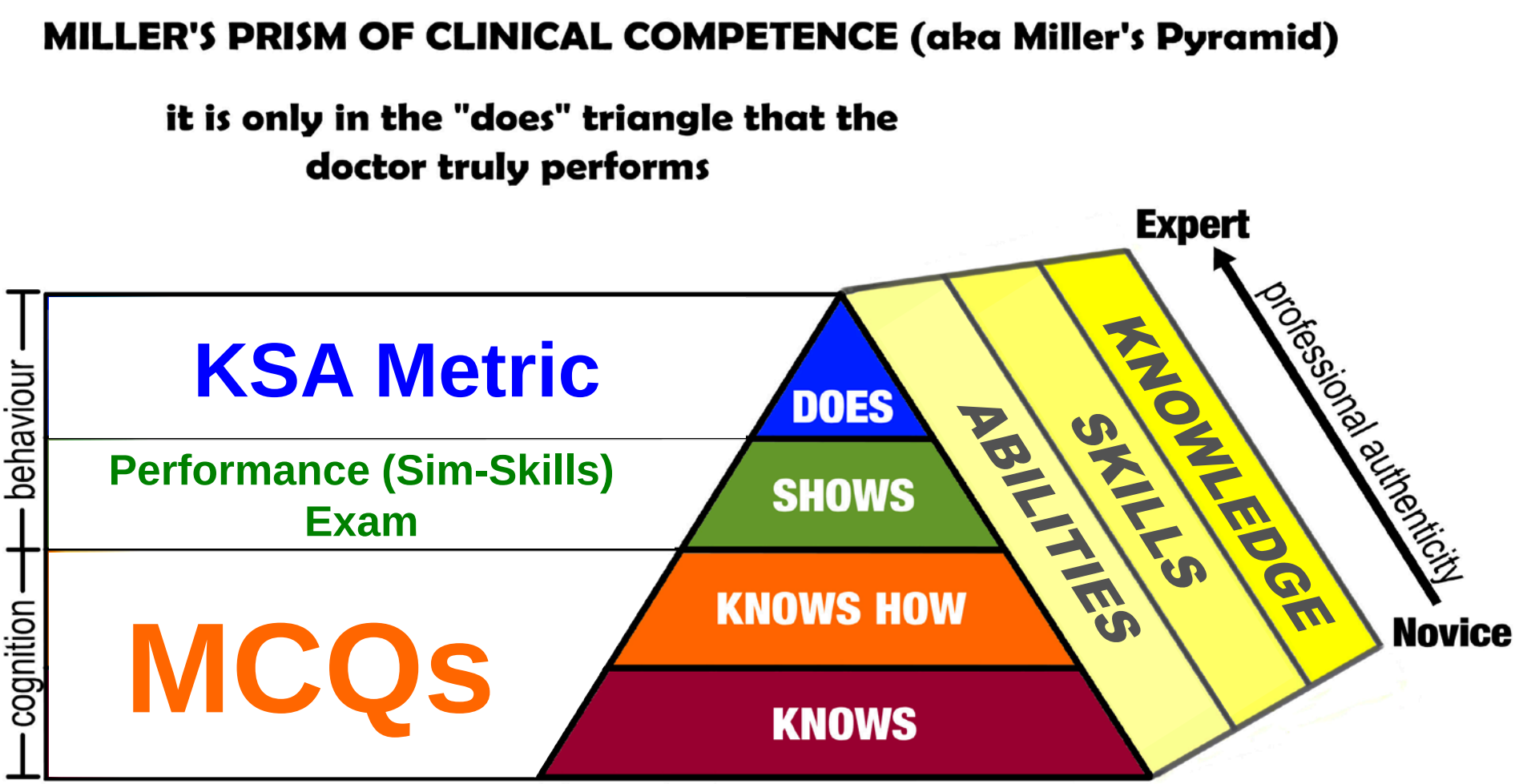


2. Maintain Clinical KSAs:
MTF practice aligned with KSAs to maintain readiness related clinical skills. Gaps addressed through VA and TAA's.

3. Skills Assessment:
Deliver in pre-deployment "window." Complete expeditionary clinical skills assessment, train/retrain as needed. Conduct team training as necessary.

4. Deployment Ready:
Knowledge assessment and skills training Information provided to Services to determine "deployment ready."

KSA Metric – "Does"



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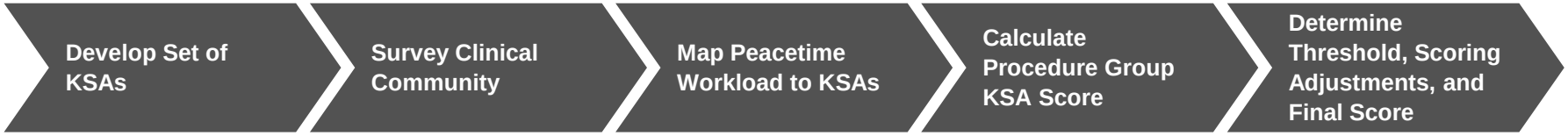
How are KSA Scores Developed?



- Consultants and Specialty Leaders in the Air Force, Army, and Navy identified Subject Matter Experts (SMEs) in their respective Services to assist in the **development of KSAs for an expeditionary clinician**
- Consulted JTS CPGs, case logs, textbooks, and other resources to **ensure completeness in coverage**

- Surveyed clinical community for **input on importance and frequency of the KSAs**

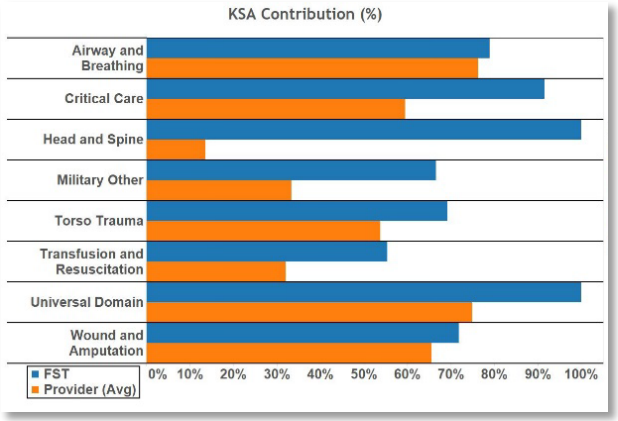
- **Mapped KSAs to relevant CPT (procedure) codes** in surgeons' current workloads
- Grouped CPT codes into procedure groups with similar procedures using the same "anchor code" to complete mapping

- Calculated Procedure Group KSA Score, a normalized weighted calculation of procedure contribution
- Applied additional "Domain Weight" based on the domain of each unique KSA developed from survey
- **Summed procedure group scores to generate KSA Score**

- Developed thresholds using Forward Surgical Team (FST) from CY2000-2014
- Considered scoring adjustments (e.g., diversity score, complexity discount) and applied to KSA Score

Threshold Development

Diversity



Volume

KSA Score Comparison

	Avg 75%	Avg 90%	Avg 99%
FST	2,161	2,558	2,989
MTF	32,382	37,749	115,789

The 75th percentile of the Forward Surgical Team's (FST) volume translated into a KSA Score was used due to feasibility

Acuity

Split-thickness Skin Graft
Excision of Eschar
EGD
Chest Tube Insertion
Myocutaneous Muscle Flap
Tracheostomy
Incision and Drainage of Abscess
Central Venous Catheter Insertion

E&M (Evaluation & Management) and select less complex procedures' contribution for the KSA Score Threshold was limited to minimize achievement of readiness from less complex procedures

Links Garrison to Expeditionary Clinical Practice

Private Sector Workload Comparison

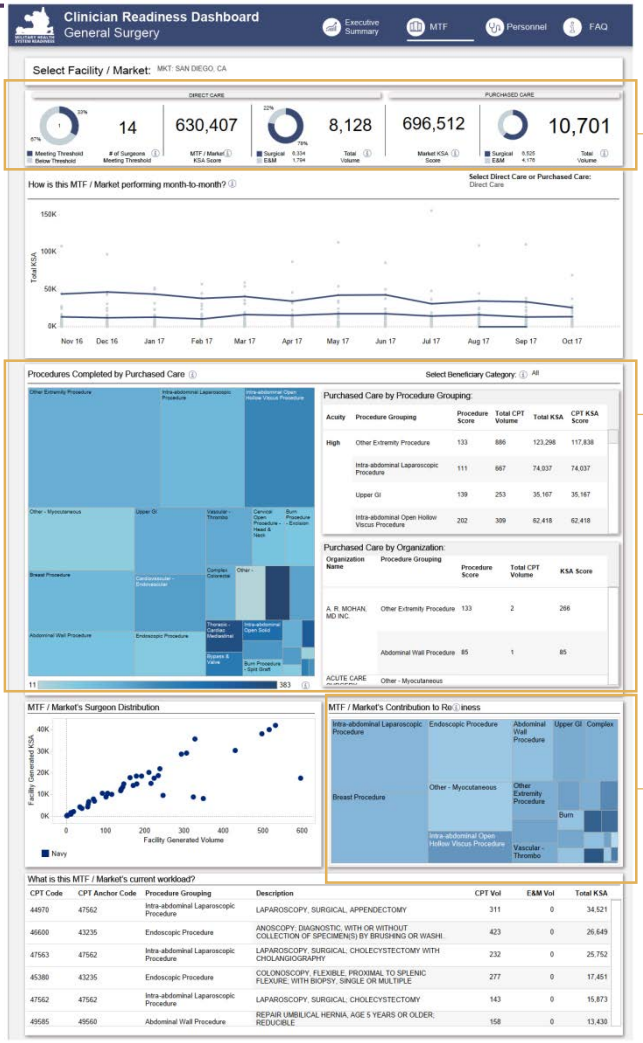
	Northeastern Suburban Academic Medical Center	Midwestern Urban Academic Medical Center	Southeastern Urban Medical Center	Southwestern Military Medical Center	MHS System-Wide
	▪ Medium, non-profit academic hospital ▪ Level 1 Trauma Center, 3K patients/yr ▪ 10,000 employees, 550 beds ▪ 1,100+ clinical faculty	▪ Large, non-profit academic hospital ▪ Level 1 Trauma Center, 13K patients/yr ▪ 10,000 employees, 1,200 beds ▪ 1,600+ clinical faculty	▪ Busy, Level 1 Trauma Center, 7K patients/yr ▪ 5,900 Employees, 1,000 beds	▪ Large, military medical center ▪ Level 1 Trauma Center, 4K patients/yr ▪ 8,500 Employees, 450 beds	▪ Excludes General Surgeons without any scores (currently deployed, administrative roles, data gaps)
Dataset	24 Trauma and Acute Care Surgeons (General Surgeons)[1]	17 Trauma and Acute Care Surgeons (General Surgeons)	5 Trauma and Acute Care Surgeons (General Surgeons)[2]	21 General Surgeons (incl. Trauma)	399 General Surgeons
Average KSA Score	19,643	21,682	67,374[3]	24,165	14,552
Median KSA Score	16,218	16,961	63,984[3]	18,310	12,240
Average Volume (CPT;E&M)	197 ; 2	184 ; 17	531 ; 295	249 ; 16	171 ; 40
Above Threshold	22/43 (51%)	9/17 (53%)	5/5 (100%)	13/21 (53%)	147/399 (37%)

[1]Includes 2 years of data, 43 data points (19 surgeons with two years of data), 2 surgeons removed with less than 6 months of data
[2]Average of 2 years of data for the 5 surgeons
[3]With 8,000 cap on low acuity, new average KSA score 65,109, new median KSA score 55,756 (2017). In addition, this is higher than normal on a per-provider basis, due to staffing issues at the facility during the timeframe. Assuming half the average provider count for the same workload would change the Average KSA Score to 33,687.

Identify Goal, Challenges, and Baseline

- **Goal: Maximize the readiness of the Military Health System**
  - Metric: % of surgeons at or above the KSA Threshold
  - Target: 100% of surgeons at or above the KSA Threshold
- **Identify Challenges**
  - OR management
  - Deployment tempo
  - Staffing (surplus or shortage)
  - Referral management
  - Coding
- **Set baseline**
  - KSA Performance (Market, MTF, OR, Surgeons)
  - TOTS (Turnover to Surgeon or “Cut Time”) time per OR per day
  - Case complexity (inpatient / outpatient)
  - Time from surgical request to day of surgery
  - Surgical and overall quality metrics (NSQIP, TQIP)
  - GME metrics when indicated

Use Dashboard to Track KSA Performance

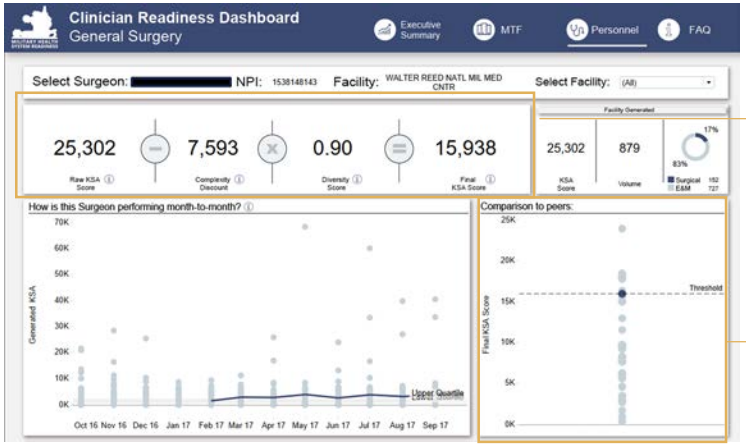


MTF/Market View

MTF/Market v Purchased Care Comparison

Purchased Care Workload Composition

MTF/Market Workload Composition



Personnel View

Surgeon score (adjusts for complexity & diversity)

Comparison to threshold & peers at MTF

https://carepoint.health.mil/SitePages/Gallery.aspx?collection=139

Establish Initiatives

1. Improve OR Management and Maximize Throughput

- **Deployed Combat Hospitals are Surgical Hospitals (Prioritize Surgical Readiness Mission)**
- **Redefine Surgical Care Line Team**
  - Membership includes surgical leaders, anesthesia leaders, nursing leaders, NCO leaders
  - 3SL team reports directly to surgical care line team
  - Ensure that the entire Military Trauma System (not just the surgeon) trains for war
- **Update core OR metrics to prioritize readiness** (Only apply to GS and Ortho currently)
  - KSAs per Total Number of ORs per day (Goal: Open all OR's at each MTF)
  - TOTS time per OR per day (Goal: 6 hrs per 8 hr day)
  - Case complexity (inpatient / outpatient) (Goal: > 50% inpatient cases)
  - Time from surgical request to day of surgery
- **Redefine business processes to prioritize readiness**
  - Prioritize schedule based on acuity (low acuity out / high acuity in)
  - Distribute OR block time based on readiness utilization metrics (TOTS time per OR per day)
  - Prioritize staffing to ensure utilization of operating room and inpatient beds first
  - Create transparency for all surgery stakeholders for all core metrics
  - Decentralize S3 surgical scheduling process to service level

Establish Initiatives (cont.)

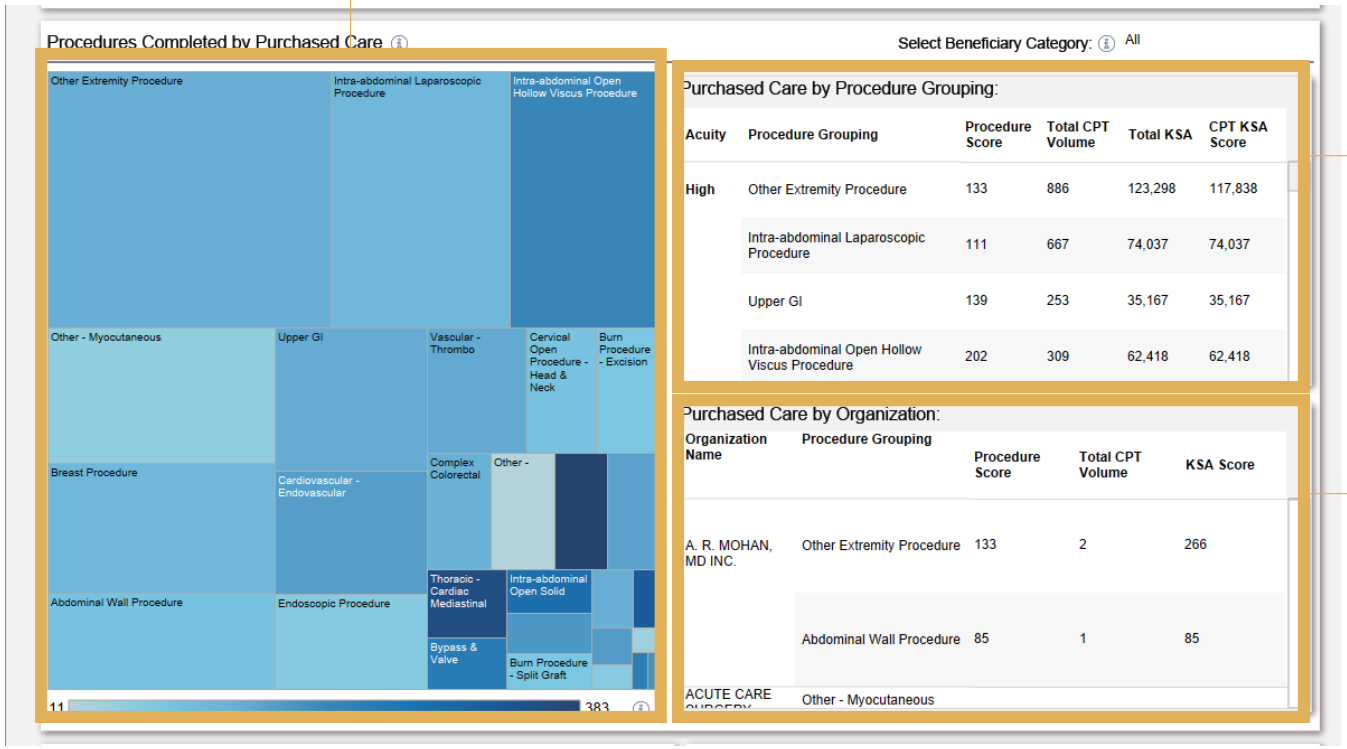
2. Recapture and Expand Market

- **TRICARE in market**
  - Prioritize MTF and MCSC Prime recapture
  - Secondarily focus on TFL
- **TRICARE out of market**
  - Referral agreements
  - Establish Wheel and Spoke Referral Pattern – outlying clinics refer cases to MTF
  - Surgeons travelling to other facilities
- **VA**
  - Establish MOU with local VA (e.g., BAMC)
  - If no local VA, become designated facility for VA patients (e.g., Eglin)
  - Develop Federal Consortium for select specialties (e.g., combined Federal <DOD and VA> ENT & Cardiothoracic service at BAMC)
- **Civilian Secretary Designation (SECDES) Patients**
  - Establish busy trauma center treating civilian / SECDES trauma patients
  - Establish agreements to do complex civilian cases

Recapture & Expand Market

The Purchased Care data section of the dashboard can be used to understand the type, volume, and location of work sent to the network

The treemap visual below displays purchased care workload in an easy-to-understand format. Each box represents a procedure group. The size of the box indicates the total KSA points going to network, while the color of the box represents the readiness value (darker = more readiness value). This visual can be filtered by TRICARE Plan.



What types of cases are being sent out?

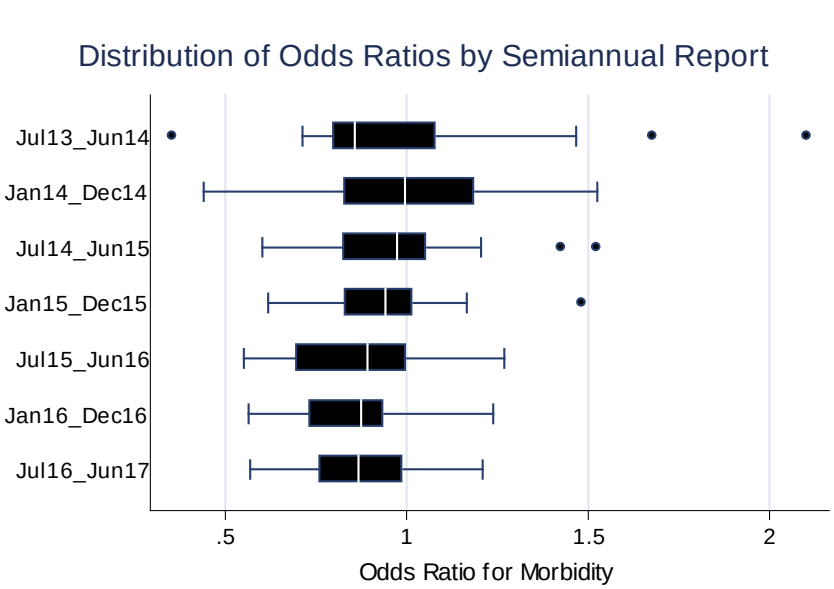
Where is the work going?

SOURCE: M2, TED-NI (Data Period: Oct 2016 – Sep 2017)

Recapture & Expand Market

Procedure Group	FAIRFAX			DUMFRIES			ANNAPOLIS			QUANTICO			MYER-HEN..		DILORENZO		BOLLING		FBCH			NAVY YARD		WR		Grand Total
	MCSC Prime	MTF Prime	TFL	MCSC Prime	MTF Prime	TFL	MCSC Prime	MTF Prime	TFL	MCSC Prime	MTF Prime	TFL	MTF Prime	TFL	MTF Prime	TFL	MTF Prime	TFL	MCSC Prime	MTF Prime	TFL	MTF Prime	TFL	MTF Prime	TFL	
Other Extremity Procedure	899	466	10,301	286	399	1,869			2,288	1,178	320	133	586	725	266	1,430		931		586	5,932			2,035	1,136	31,766
Intra-abdominal Laparoscopic Proc..	666	3,996	4,551	555	2,220	999		1,998	999	444	1,998		333	222	444	333		111	444	1,332	1,443	111		555	444	24,198
Intra-abdominal Open Hollow Viscus	606	1,414	6,262	808	1,010	2,020		808			808	202	202	404		404	808			1,212	606				808	18,382
Upper GI		2,085	3,892	417	973	278		417	973	556	1,390	278	139	139		139	417			278	278				278	12,927
Breast Procedure	784	224	2,464	224	672	1,232	448	224	1,680	784		784	336	896	224	560				112	1,008		112			12,768
Other - Myocutaneous	330	816	2,678	104	364	1,096		572	1,336	226	330	468	52	624	52	330		364	52	104	1,440		104	183	988	12,613
Abdominal Wall Procedure	170	595	4,165		255	1,105		425	510	85		595		510	85	170	85			425	1,530				340	11,050
Cardiovascular - Endovascular			480			320			800			960				160				960	1,760				3,040	8,480
Endoscopic Procedure	315	189	2,646	252	756	126		441	1,575	252	378			315	126	252				63	315				315	8,316
Vascular - Thrombo	282	423	423	423		564			564			282				705				423	423	846		423		5,781
Other - Percutaneous & Catheter	351	1,131	771	135	66	165		22	192	257	77	77	22	77	183	79			66	894	432	44	11	11	135	5,198
Intra-abdominal Open Solid - Lapar..		459	1,224		153	153		306	153		153				306		306			153	153				306	3,825
Cardiovascular - Open			766			383										766					766			383	383	3,447
Thoracic - Cardiac Mediastinal		354	1,062		708			354												354	354					3,186
Intra-abdominal Open Solid - Hepa..	317	317	951		634			317			317				317											3,170
Complex Colorectal		381	762	127				254								254					254			127		2,159
Burn Procedure - Excision		76	1,064			76			532			76				152								76		2,052
Cervical Open Procedure - Head & ..	83	415	332			166			83		83					83			83	83					249	1,660
Intra-abdominal Open Solid - Pacre..					273			273								273	273			273						1,365
Pneumonectomy								342								342	171									855
Kidney Transplant											448									224						672
Thoracic Procedure			177		177			59					59				59									531
Urologic Trauma Procedure					164																164					328
Burn Procedure - Split Graft		154	77																						77	308
Bypass & Valve			278																							278
Thoracic - Lung Thorascopy		132			132																					264
Cervical Open Procedure - Tracheo..			108		72									36											36	252
Thoracic - Esophagectomy			182																							176,013
Grand Total	4,803	13,627	45,616	3,331	9,028	10,552	448	6,812	11,685	3,782	6,302	3,855	1,729	3,948	2,003	6,280	2,271	1,406	645	7,476	16,858	1,001	227	3,793	8,535	####

MHS/ACS Surgical Quality Consortia



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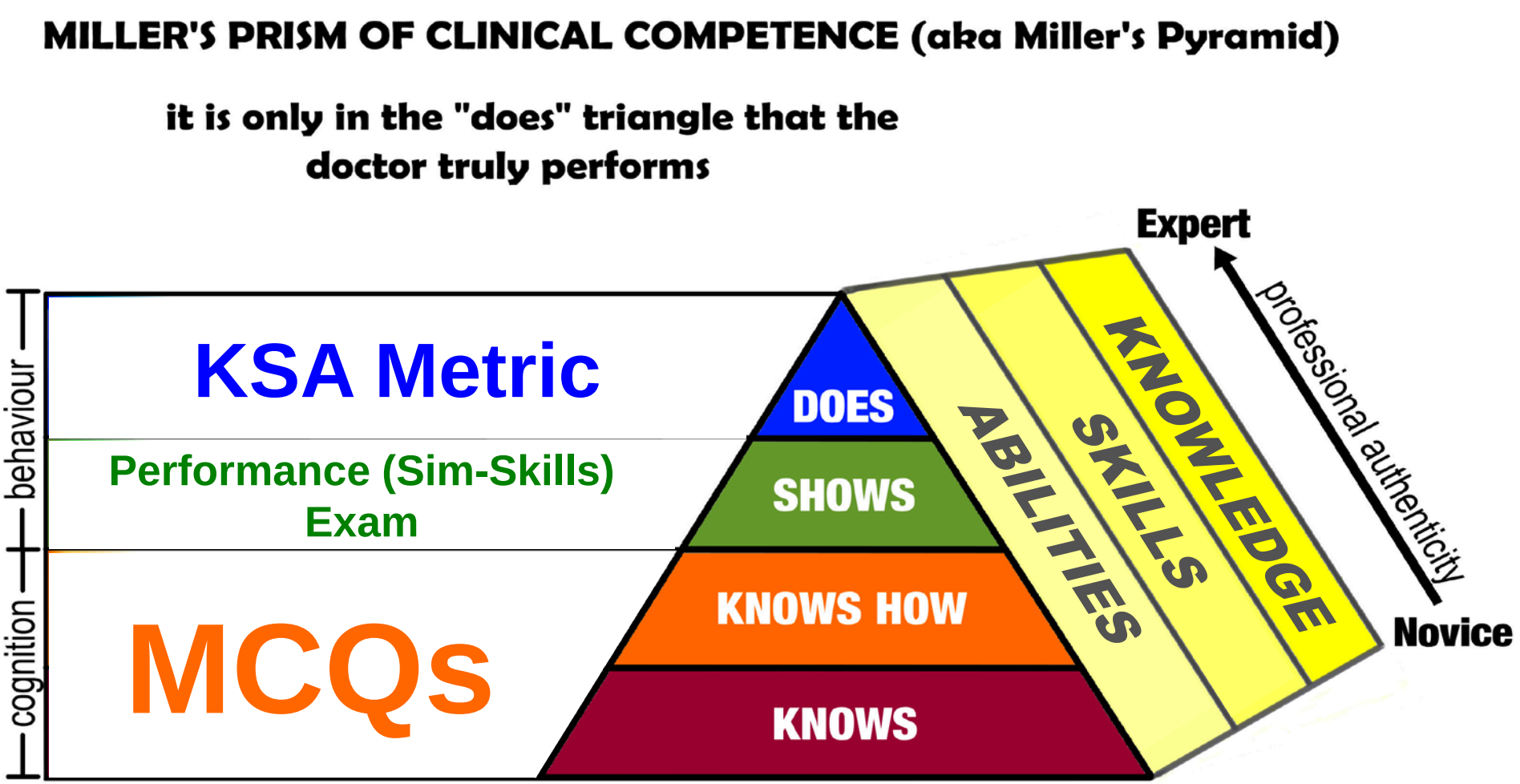
KSA Assessment – “Knows” and “Shows”



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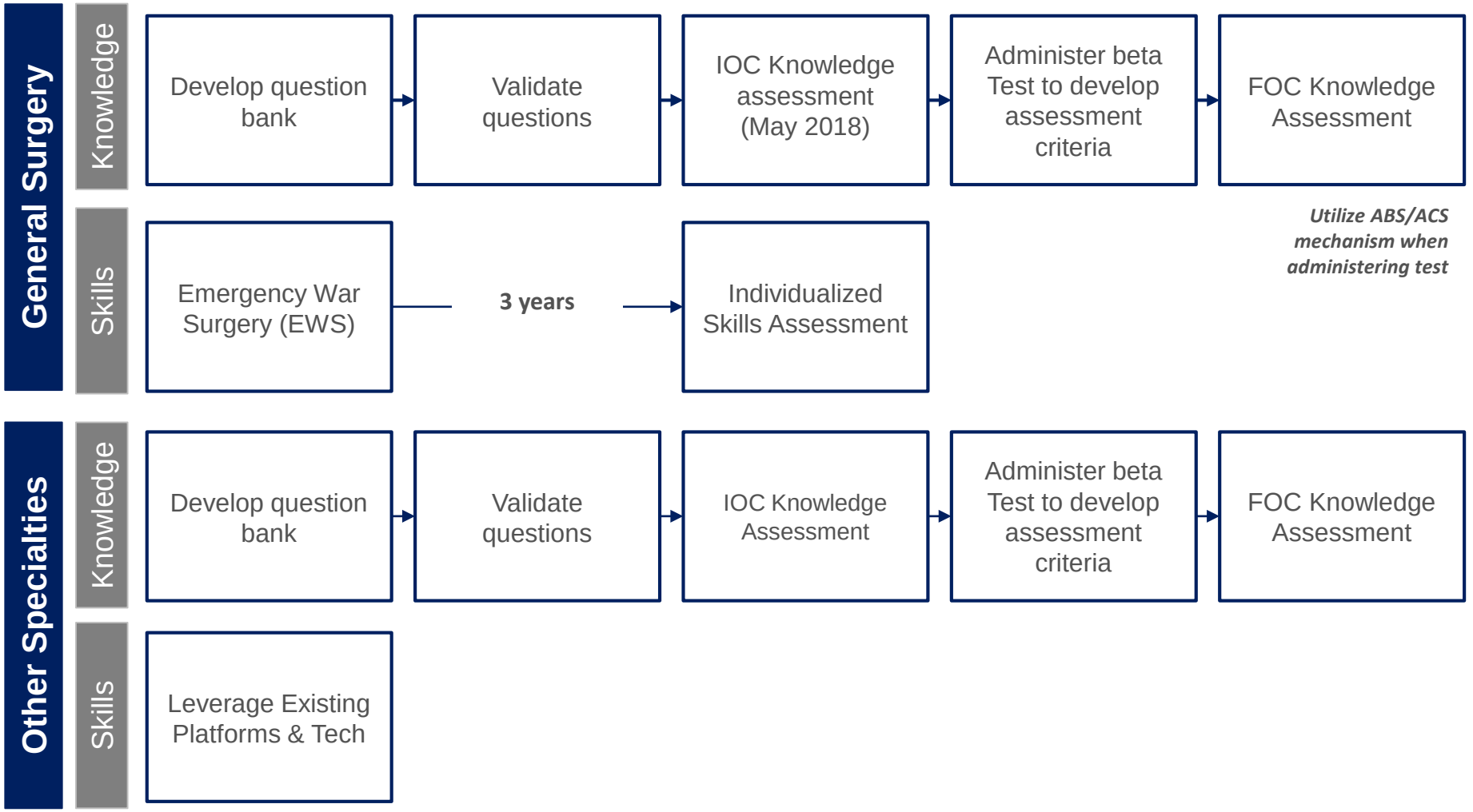
KSA Assessment and Testing Detail

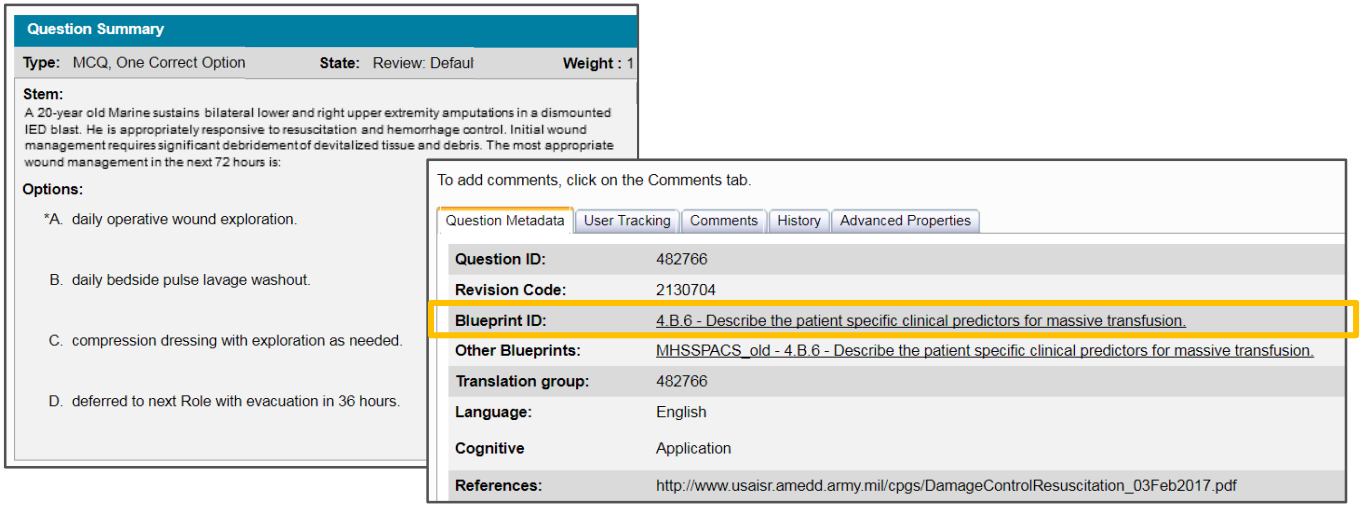


Economies of Scale will occur as more specialties are developed

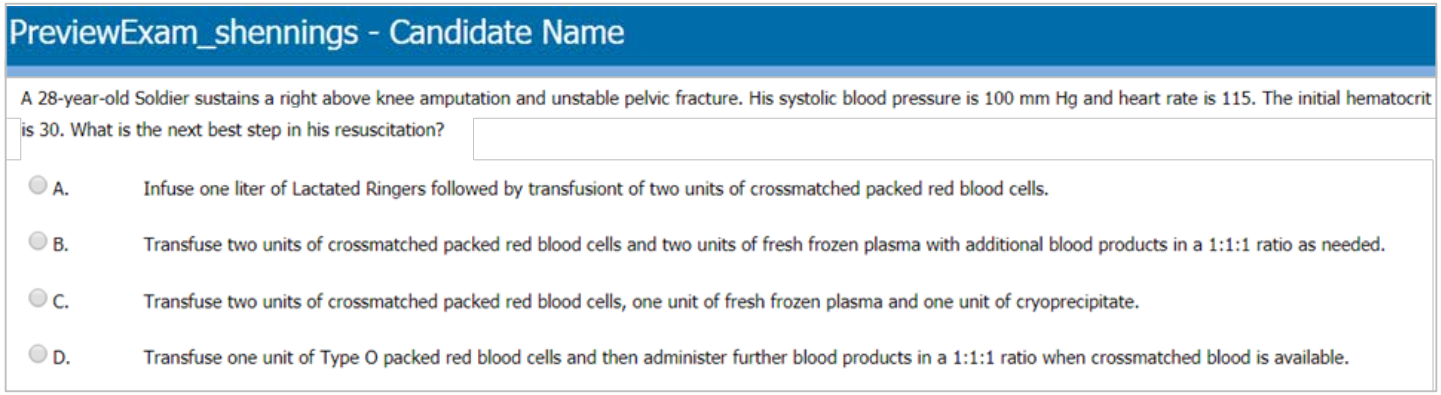
Knowledge and Skills Assessments

Periodic assessment of fundamental expeditionary knowledge, skills, and abilities delivered via proctored, web-based, multiple-choice examination.

Exam Development Based on KSA Blueprint



Proctored Student Testing



Knowledge and Skills Assessments

ASSET (ACS)

ATOM (ACS)

EWS
- Didactic
- Skills

Expeditionary Elements

Wound & Amputat on /Fx Mgt	Head and Spine njury	Torso Trauma
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m-Curriculum and Knowledge Assessment

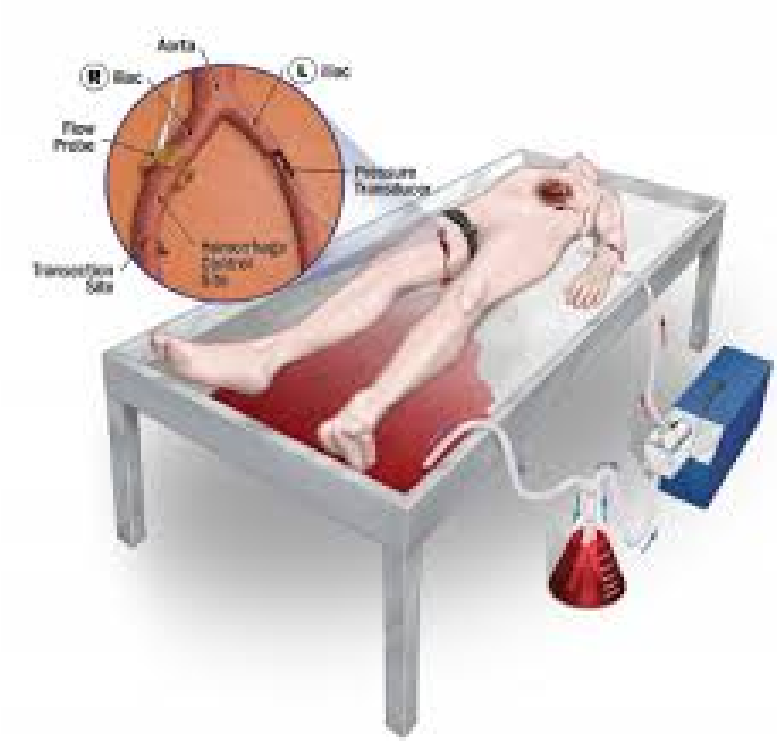
Remediation

Individualized Skills Assessment
- **DCS/DCR (perfused cadaver)**
- Fasciotomy
- REBOA/EDT
- Craniotomy
- Shunt Placement
- NPWT

Remediation

Competency Based Skills Assessment

- General surgeons are charged with providing damage control resuscitation and surgery (DCR/DCS)
- Perfused cadaver based models offer opportunity to assess DCS/DCR as a key element of skills assessment
- We have developed tools to accurately measure the ability of surgeons to perform these complex procedures
- This is a key component of the Clinical Readiness Lifecycle



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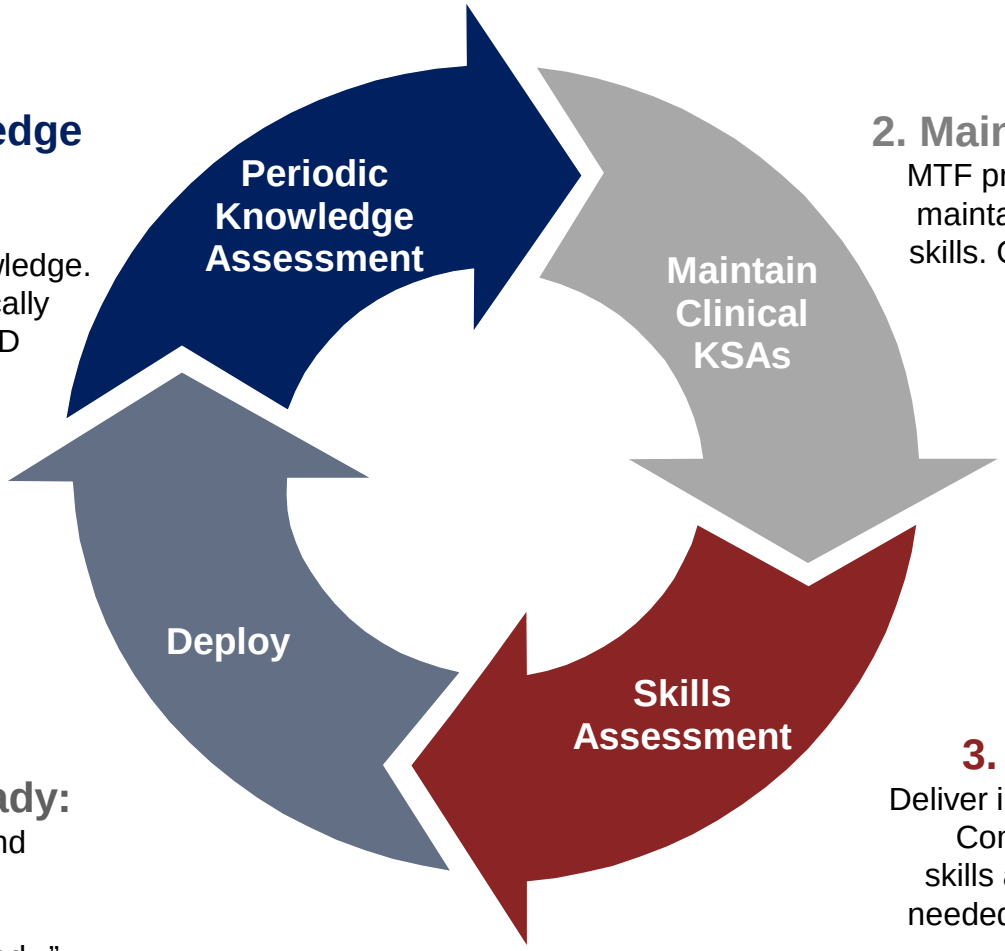

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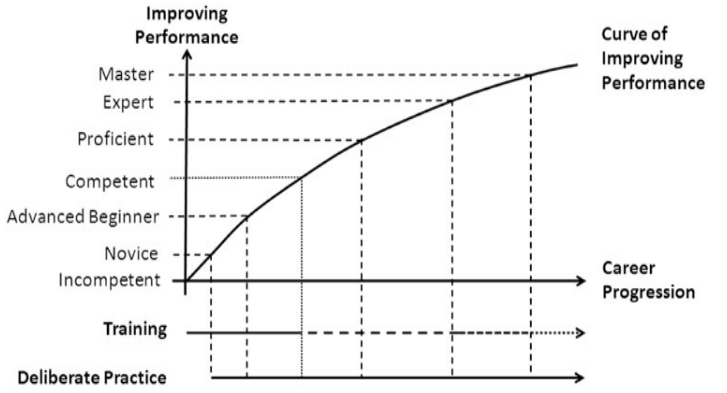
Expert Trauma System



Conceptual framework for performance assessment: Competency, competence and performance in the context of assessments in healthcare – Deciphering the terminology (Kamran Khan et al, 2012).

Master:
. Sets new standards of performance
. Mostly deals with complex situations intuitively
. Able to train other experts at national or international level

Expert:
. Achieves excellent performance
. In complex situations, moves easily between analytical and intuitive solutions
. All options related to the given task are considered
. Able to train and supervise others performing routine and non-routine complex tasks

Proficient:
. Able to perform on acceptable standards routinely
. Able to deal with complexity analytically
. Related options also seen beyond the given task
. Able to train and supervise others performing routine complex tasks

Feedback & Assessment
(individual / system + adaptability)

Proficient → **Expert** → **Master**

BAS Role 1	FST, CRTS Role 2	CSH, EMEDS, EMF, TAH Role 3	OCONUS Definitive Care Role 4	USUHS - WRNMMC SAMMC - MATC Role 4

Education, Training, and Research Pre-Deployment Prac[illegible]Role 4)

Uniformed Services University

Proof of Concept Surgeon Feedback

During the 6 site visits across NCR and the three Services, providers offered feedback on the KSA Proof of Concept:

"You talk about defining moments in military medical history – this is it."

"I really value what you guys are doing."

"I'm all for it if we can try to make things a little more purposeful with our deployment."

"I think this is great. It's music to my ears."

"TSG Readiness and MEDCOM 3SL productivity always collide, and this gives us a great metric to hone our focus."

MHS Clinician Readiness Project Status

The below displays the project status by Specialty

Specialty	Status of Key Tasks							
	Data	Scoring Methodology	Procedure Grouping	KSA Weighting Survey	Mapping Session	Scoring Session	Dashboard	Testing and Assessment
General Surgery	■	■	■	■	■	■	■	■
Orthopedic Surgery	■	■	■	■	■	■	■	■
Emergency Medicine	■	■	■	■	■	■	■	■
Critical Care	■	■	■	■	■	■	■	■
Anesthesia	■	■	■	■	■	■	■	■
Emergency Medicine Nursing	■	■	■	■	■	■	■	■
Critical Care Nursing	■	■	■	■	■	■	■	■

Legend ■ Not Started ■ In Progress ■ Completed

KSA Blueprint Session Participants

Tri-Service representatives were selected from each specialty to participate in the KSA development. The General Surgery participants also included clinical and non-clinical SMEs from MSSPACS

Specialty	Service	Name
General Surgery	Air Force	Lt Col Travis Gerlach
General Surgery	Air Force	Col Mary Guye
General Surgery	Air Force	Lt Col Thomas Stamp
General Surgery	Air Force	Maj Fi A Yi
General Surgery	Army	COL Brian S. Burlingame
General Surgery	Army	COL Mary J. Edwards
General Surgery	Army	LTC Jennifer M. Gurney
General Surgery	Army	LTC Jonathan B. Lundy
General Surgery	Navy	CDR Rodd Benfield
General Surgery	Navy	CAPT Ted Edson
General Surgery	Navy	CDR Robert P. Hinks
General Surgery	Navy	CAPT Craig Shepps
General Surgery	MHSSPACS	Col E. Matthew Ritter
General Surgery	MHSSPACS	Anne Rizzo
General Surgery	MHSSPACS	Col Jeffrey Bailey
General Surgery	MHSSPACS	CAPT Eric Elster
General Surgery	MHSSPACS	M. Margaret Knudson
General Surgery	MHSSPACS	Patricia Turner
General Surgery	MHSSPACS	David Hoyt
General Surgery	MHSSPACS	Ajit Sachdeva
General Surgery	MHSSPACS	Patrice Blair
General Surgery	MHSSPACS	Sara S. Hennings
General Surgery	MHSSPACS	Garrett G. Kirk

KSA Blueprint Session Participants

Tri-Service representatives were selected from each specialty to participate in the KSA development

Specialty	Service	Name
Critical Care	Army	**Champion - COL Christopher Lettieri**
Critical Care	Air Force	Col Jerry Fortuna
Critical Care	Air Force	Lt Col Sean Macdermott
Critical Care	Army	LTC Matthew Borgman
Critical Care	Army	COL Alan DeAngelo
Critical Care	Army	LTC Jeffrey Mikita
Critical Care	Army	LTC Jeremy Pamplin
Critical Care	Navy	CDR Sean McKay
Emergency Med	Army	**Champion - COL Ian Wedmore**
Emergency Med	Air Force	Col Terry Lonergan
Emergency Med	Air Force	Maj Torree McGowan
Emergency Med	Air Force	Lt Col Bryan Szalwinski
Emergency Med	Army	LTC Jason Bothwell
Emergency Med	Army	LTC Stewart McCarver
Emergency Med	Navy	CAPT Michael Matteucci
Emergency Med	Navy	CDR Jeffrey Ricks
Emergency Med	Navy	CDR Bettina Sauter
Emergency Med	USMC	CDR Wayne Smith

Specialty	Service	Name
Anesthesia	Air Force	**Champion – Lt Col Napoleon "Skip" Roux**
Anesthesia	Air Force	Lt Col Michael Garrett
Anesthesia	Air Force	Maj Joshua Lindquist
Anesthesia	Air Force	Maj Michael Tiger
Anesthesia	Air Force	Lt Col Matthew Uber
Anesthesia	Army	MAJ Samuel Blacker
Anesthesia	Army	COL Donna Moore
Anesthesia	Army	LTC David Ruffin
Anesthesia	Army	LTC Jeffrey Thompson
Anesthesia	Army	MAJ Matthew D'Angelo
Anesthesia	Navy	CDR John Benjamin
Anesthesia	Navy	CDR Kyle Berry
Anesthesia	Navy	CDR Justice Parrott
Anesthesia	USMC	CAPT Mitch Moon
Critical Care Nursing	Air Force	Maj Myrna Spencer
Critical Care Nursing	Army	LTC Jana Nohrenberg
Critical Care Nursing	Navy	CDR Charlene (Rena) Ohliger
Emergency Med Nursing	Air Force	**Nursing Champion - Lt Col Peter Kulis**
Emergency Med Nursing	Army	MAJ Shane Obanion
Emergency Med Nursing	Navy	LCDR Brookes Englebert

KSA Blueprint Session Participants

Tri-Service representatives were selected from each specialty to participate in the KSA development

Specialty	Service	Name
Orthopedic Surgery	**Air Force**	**Champion - Lt Col Chris Lebrun**
Orthopedic Surgery	Air Force	Col Michael Charlton
Orthopedic Surgery	Air Force	Lt Col Erik Nott
Orthopedic Surgery	Air Force	Lt Col James Dombrowski
Orthopedic Surgery	Air Force	Maj Ryan Finnan
Orthopedic Surgery	Army	LTC Kenneth Nelson
Orthopedic Surgery	Army	LTC Mark McAndrew
Orthopedic Surgery	Army	LTC Jean-Claude D'Alleyrand
Orthopedic Surgery	Navy	CDR George Nanos
Orthopedic Surgery	Navy	CDR Charles Osier
Orthopedic Surgery	Navy	LCDR Christopher Smith