

Headquarters U.S. Air Force

Integrity - Service - Excellence

Building Combat-Tested Research Capability



**BG Theresa Casey
AF /SGR2
Aug 2009**

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USAF Priorities



Our priorities are clear:

- ***Reinvigorate the AF Nuclear Enterprise***
- ★ ***Partner with Joint/Coalition team to win today's fight***
- ★ ***Developing and caring for Airmen and their families***
 - ***Modernize our aging Air and Space inventories***
 - ***Acquisition Excellence***

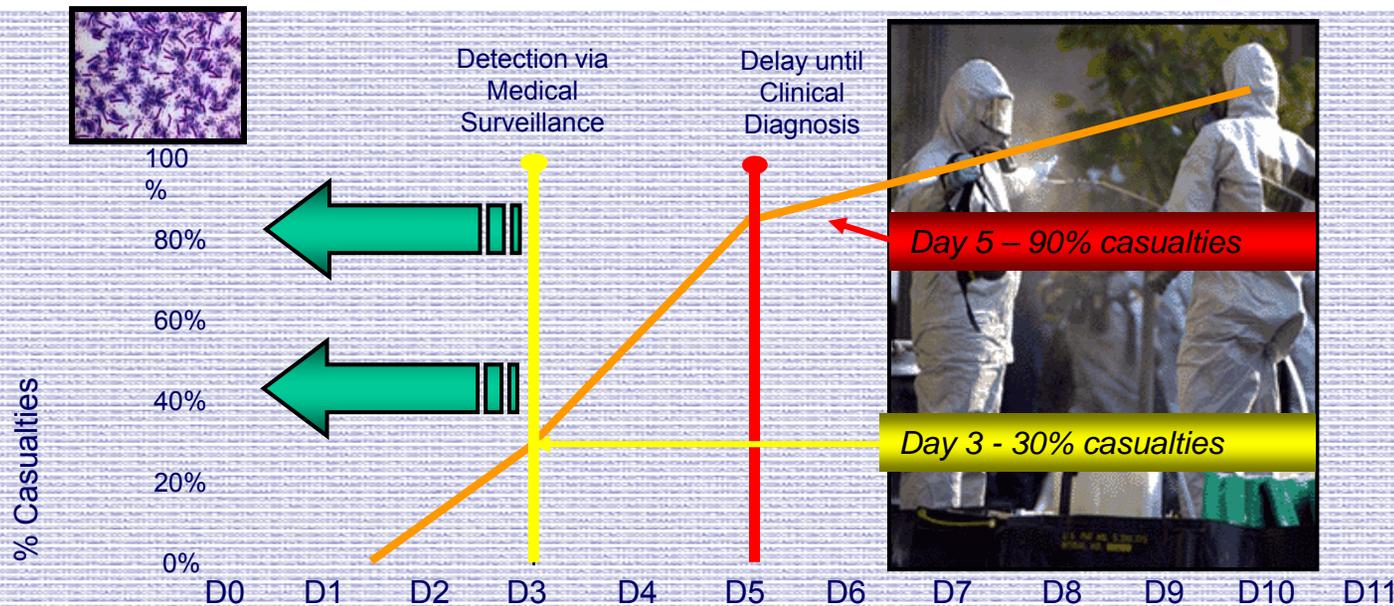
AFMS Key Part of Each Priority



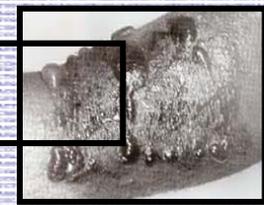
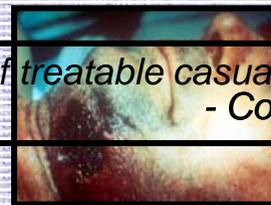
Modernization Mission

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Transform medical capabilities into world-class solutions



Save nearly 90% of treatable casualties with early identification - Contain outbreak -



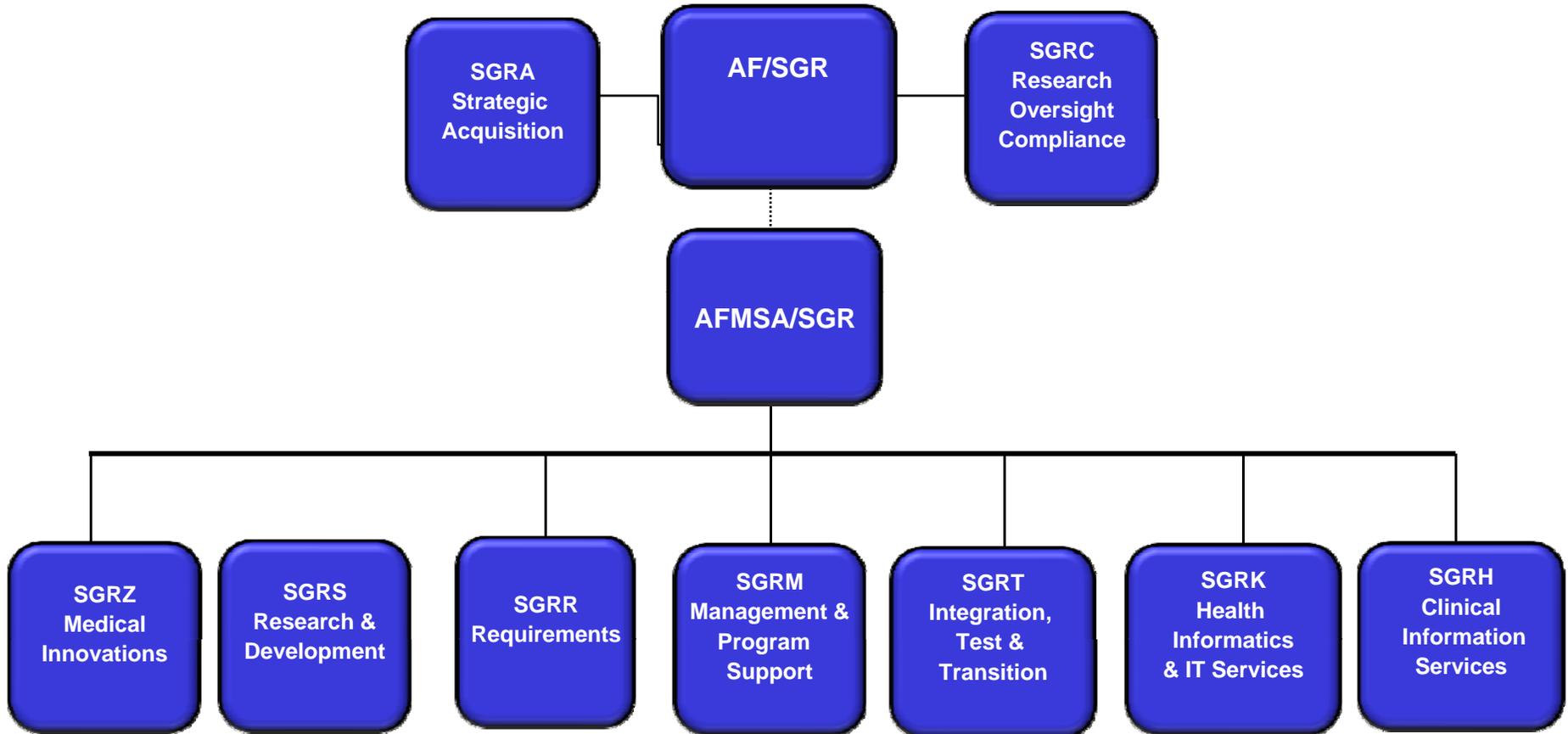
Source: Adapted from U.S. Army Hazard Analysis Modeling

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SGR Product Line



Requirements → Programs / Projects / Special Interest Items → Solutions

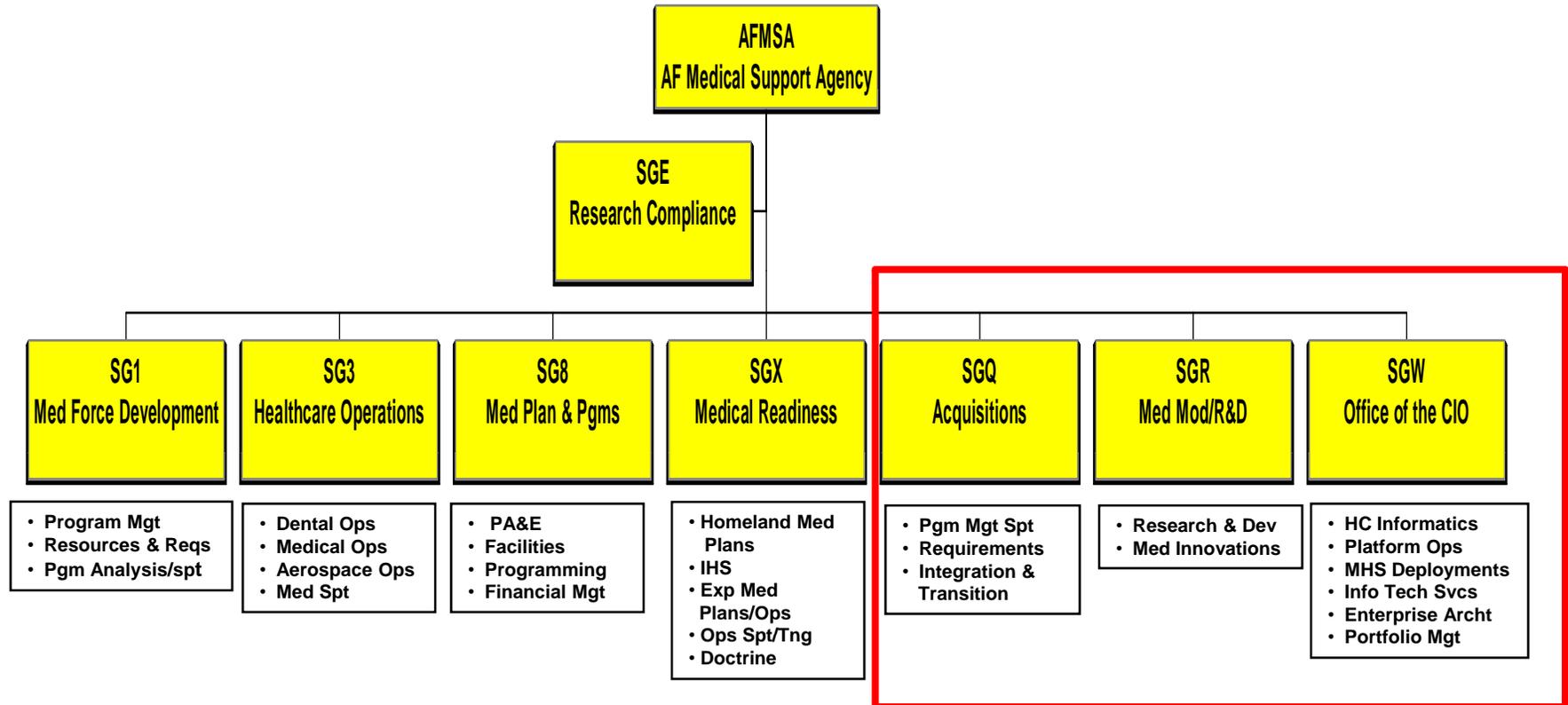
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AF Medical Support Agency

2 Nov 09



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During my tenure as your Surgeon General, we will continue to enhance hospitals, health care, education, training, and research to build a better future. We will do all these things in a patient-centered health system that respects and promotes diversity to enhance health for all patients. You continue to be the most important medic and have the privilege of serving America's heroes—please offer them your very best, every day! I'm honored to do the same for you. Thank you.

A handwritten signature in black ink, appearing to read 'Charles B. Green', written over a light blue horizontal line.

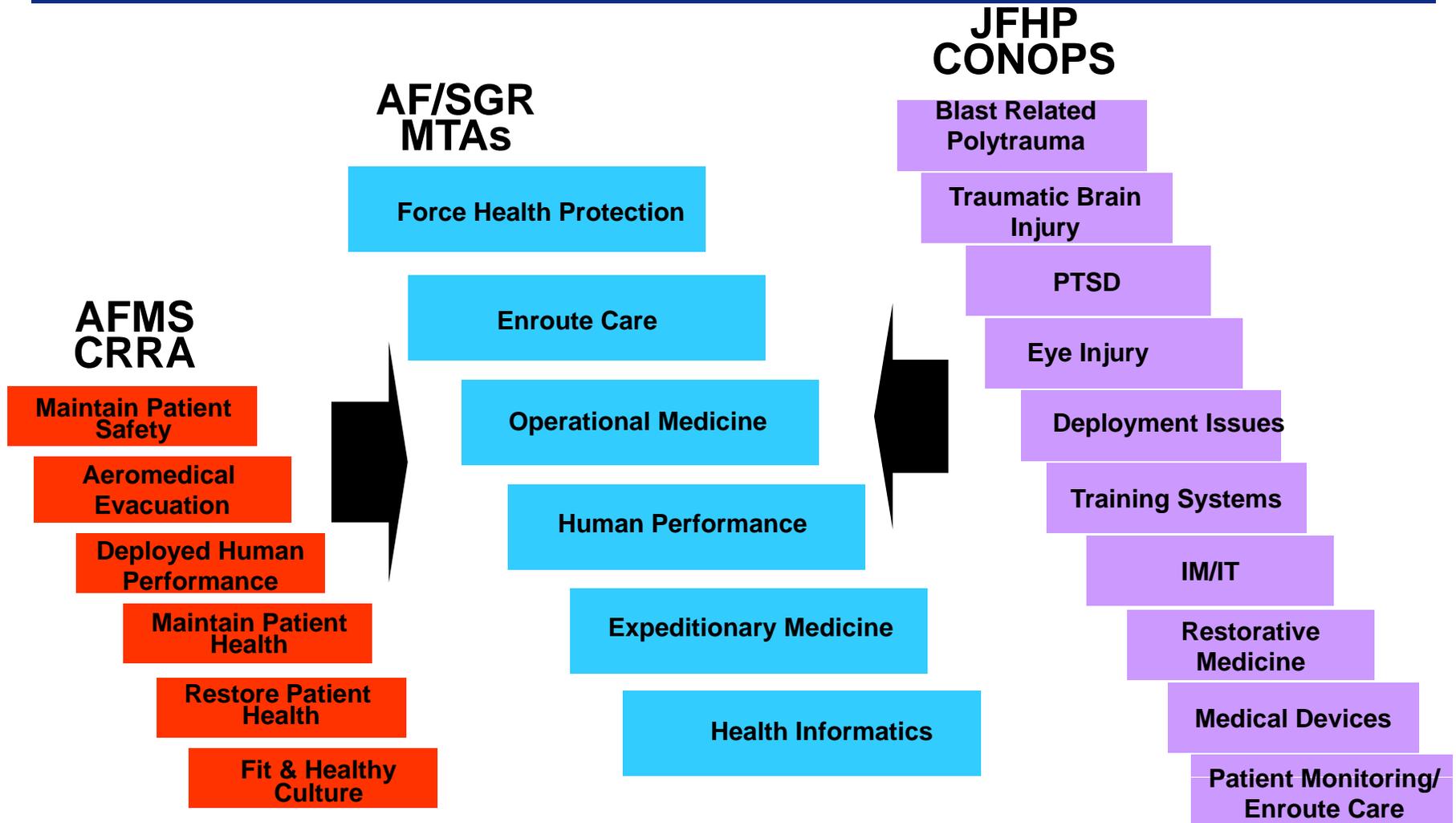
CHARLES B. GREEN
Lieutenant General, USAF, MC, CFS
Surgeon General

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Modernization Thrust Areas

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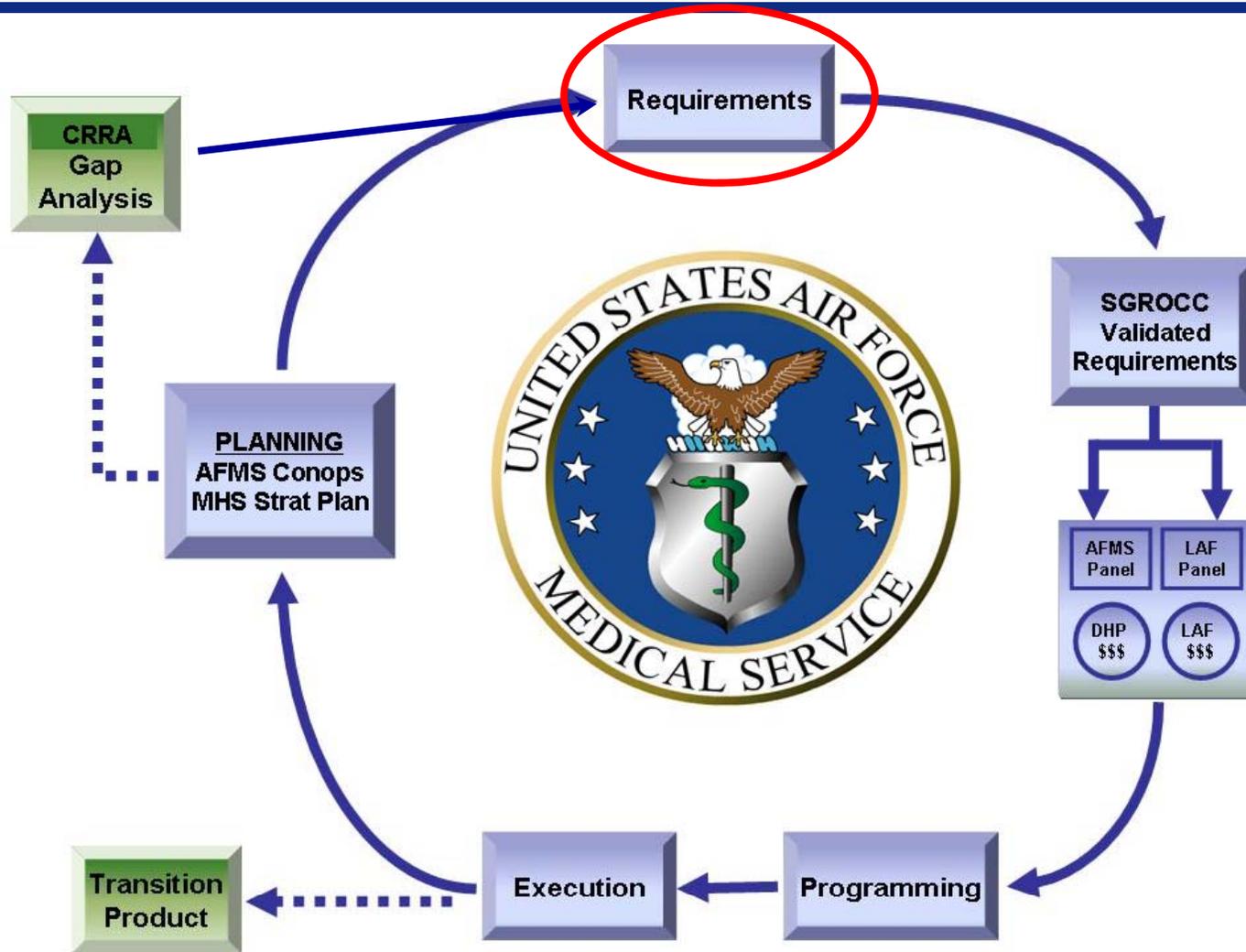


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The Modernization Life Cycle

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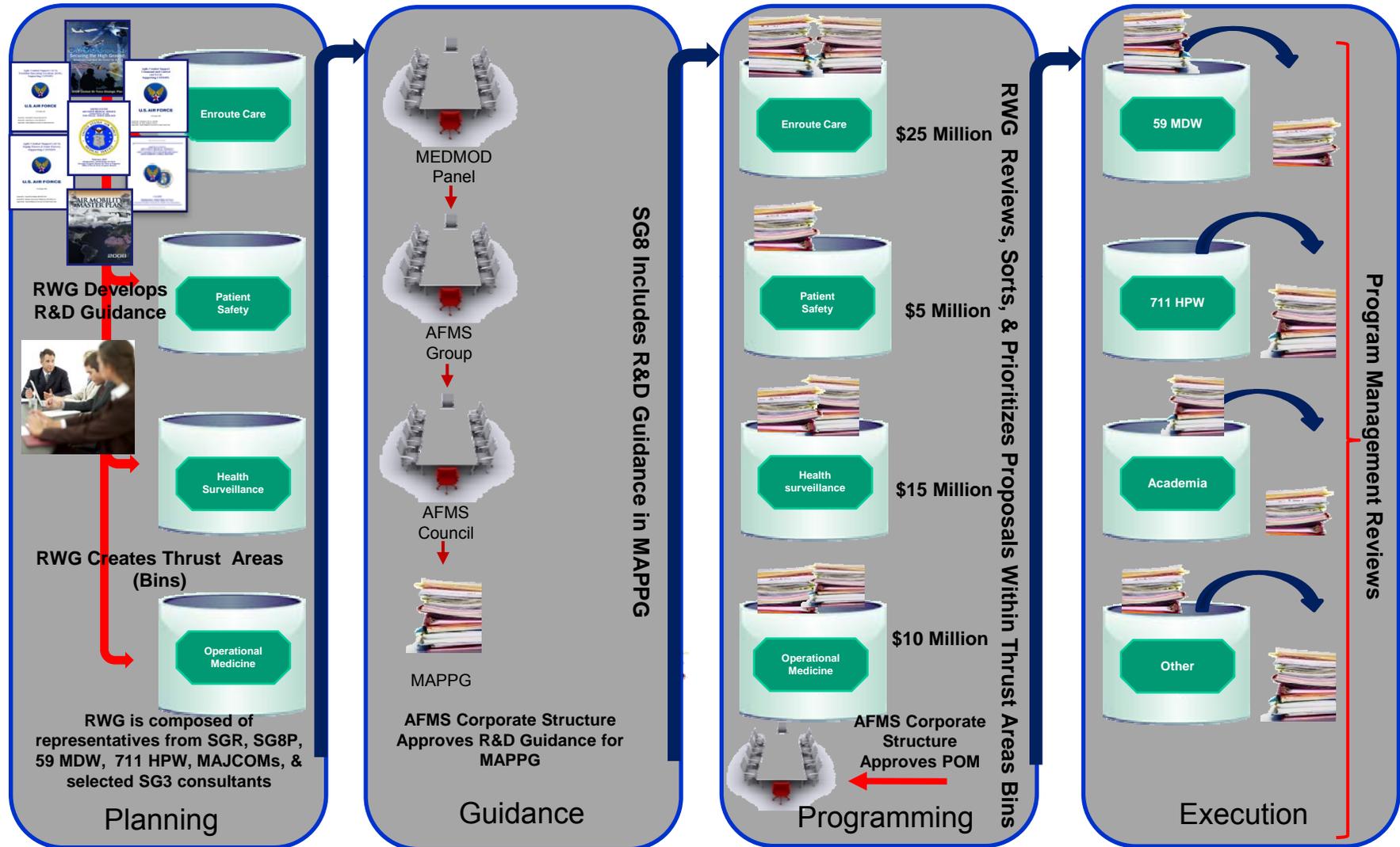


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R&D PPBE Process

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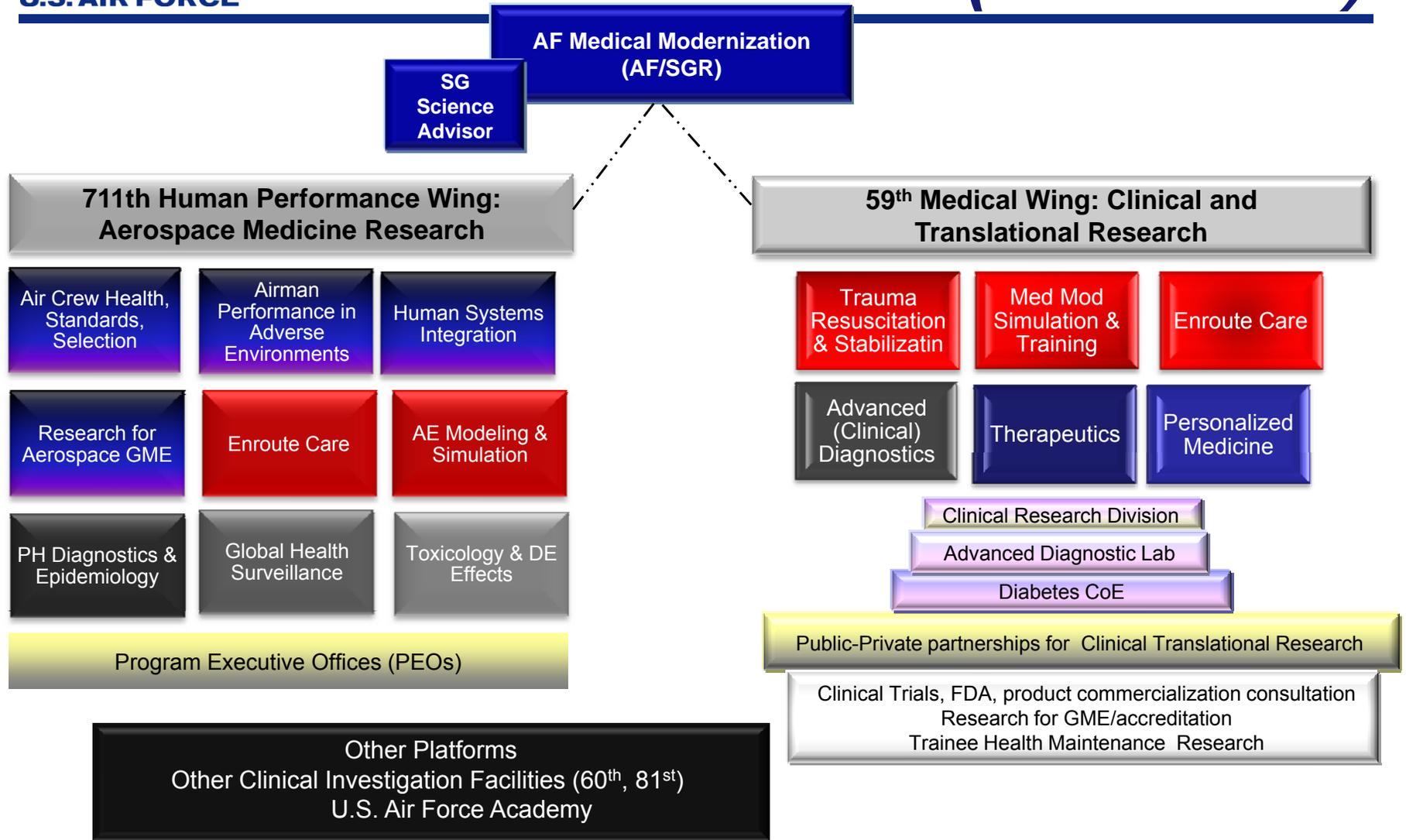


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AFMS 2-Wing Research Model (Execution)



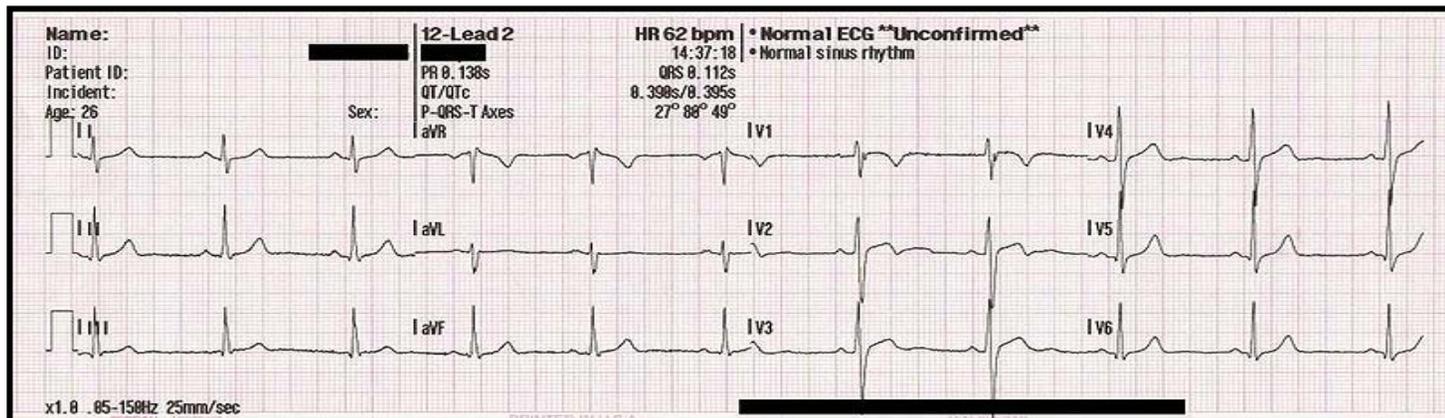
Addressing AF unique Scientific Needs, Supporting Joint Medical R&D



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Initiatives

- SGROCC material solutions
- Clinical research
- Congressional research
- Knowledge solutions
- Medical R&D governance
- Portfolio Management



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AFMS R&D Initiatives



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Knowledge Solutions

- **Clinical Research**
 - **Acute Lung Rescue Team**
 - **Joint vascular injury**
 - **Glycemic control in trauma patients**
 - **Effect of altitude on compartment syndrome**
 - **Non-invasive cerebral perfusion pressure assessment**



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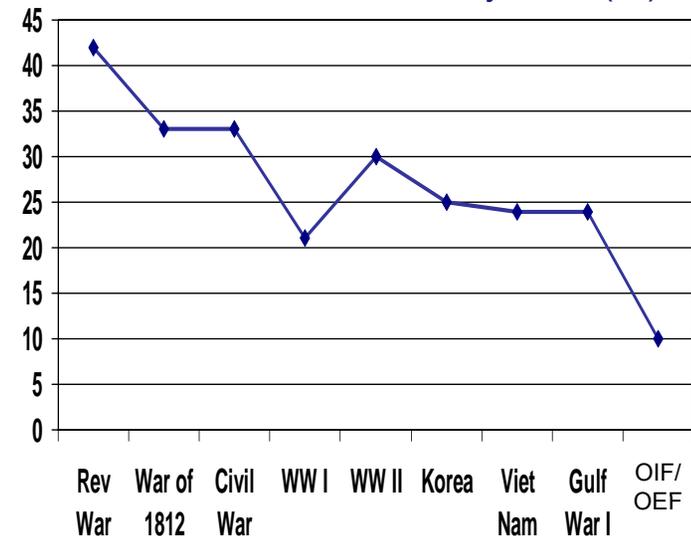


Knowledge Solutions

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- **CIF projects mapped to AFMS
CRRA/JFHP CONOPS**
- **Studies of Hemostatic Dressings
/ Agents**
- **Porcine Extremity Vascular Injury
Model**
- **Bioabsorbable Stent-grafting for
repair of Arterial Trauma**
- **Pressure infusion with Belmont
FMS 2000 rapid infusion device**

Wartime US Lethality Rate (%)



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Material Solutions

- **Current projects**
 - **Virtual medical trainer**
 - **AF-Joint medical distance support evacuation**
- **Potential new starts**
 - **Acoustic stethoscope (AE)**
 - **Video assisted intubation device (AE)**
 - **CCATT training mannequins with simulation**



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Healthcare Informatics

- **Radiofrequency identification/tracking**
- **Regional telepathology initiative**
- **Telemental health virtual reality & video conferencing**
- **Teleradiology**
- **Aeromedical evacuation electronic health record**



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Reunion in Afghanistan

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BOB WOODRUFF REPORTS
FRONTLINE REUNION WITH SAVIORS



The Soldiers Who Saved Me

Video player controls including a play/pause button, a volume icon, a progress bar with a playhead, a time display showing - 01:50, a share button, and a comment icon.



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Questions



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Study Conclusion

	AFD	ACS+	HC	CX	WS	p-value
Survival Time (min)	21.5±6.4	64.5±24.8	83.2±23.3	110±10	120±0	0.002
Survival to 120 minutes	0/6	3/6	4/6	5/6	6/6	0.005
Post-injury blood loss (mL/kg)	27.0±2.7	15.8±3.6	10.0±3.6	12.9±4.9	4.6±2.3	0.002

- All agents tested outperformed the AFD
- Based on blood loss and survival data:
 - WoundStat was superior
 - HemCon dressing and Celox granules similar
 - Followed by QuikClot ACS+ dressing

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