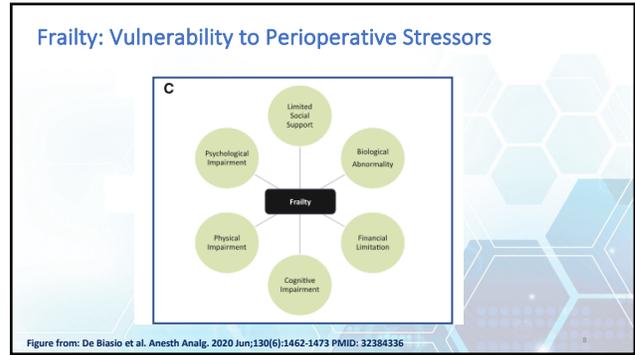
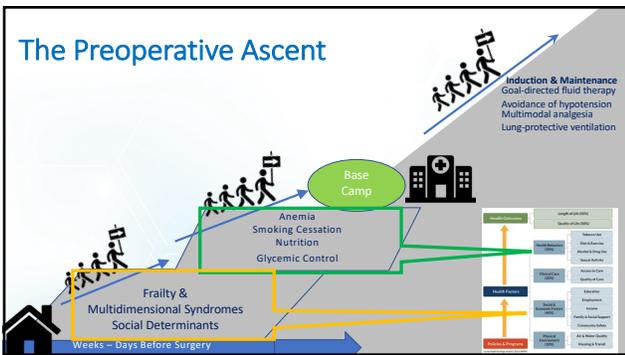


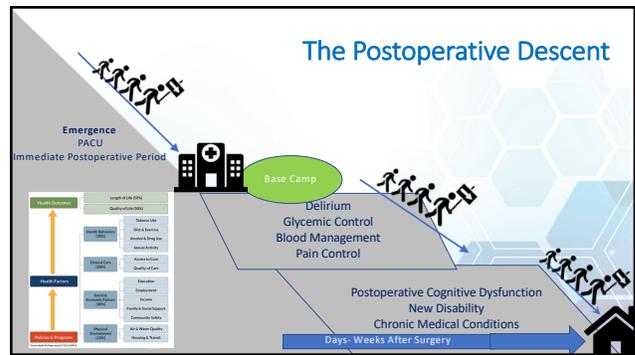
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- Physical, cognitive, psychological health are interconnected
- Many patients present with previously undiagnosed conditions that impact perioperative risk
- Implement interventions based upon individual patient risk profiles

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Traveler, there is no path. The path is forged as you walk.
— Antonio Machado, Campos de Castilla.¹

Rapidly adapt to challenges in a dynamic environment is critical to success:

- Changing plans
- Obscured paths
- Anticipate obstacles

AP/AL PENGLAW EXPEDITIONS, ADRIAN BALLINGER

1. <https://www.poetryfoundation.org/poems/60314/traveler-for-your-connections>

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Population Health and the Perioperative Period

Ambulatory Anesthesia: The Innovating Edge of Perioperative Medicine?

- Optimization to improve candidacy for ambulatory surgery
- Patient's desire to avoid hospital based-location or admission
- Hospital's desire to maximize resource allocation
- Ability to improve health outcomes

Lee A. Fleisher, MD
Consulting Editor

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The Tenets

1. POM exists in the continuum between diagnosis, surgery, and postoperative recovery
2. The proficient POM specialist is skilled in managing patient complexities throughout the entire perioperative continuum
3. The perioperative period requires different therapeutic targets and approaches to optimization of chronic conditions
4. Perioperative medicine is *both* the creation of safe, evidence-based pathways, *and* the act of guiding the patient through complex and nuanced decisions

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The Tenets

5. Take a holistic approach to address all domains that impact vulnerability to perioperative stress
6. Aim to improve patients' perioperative outcomes and long-term health
7. Measure value by measuring outcomes: time and quality of recovery, impact upon long-term health
8. A nuanced appreciation of system resources within various surgical settings is critical to success

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Prehabilitation

- Multidimensional syndromes are best addressed with multi-modal interventions
- 3 domains:
 - Functional Status
 - Nutrition
 - Psychological State
- Withstand the physical and psychological stress of the perioperative period

Pyramid Diagram Domains (from top to bottom):

- Preoperative Exercises
- Prehabilitation
- Nutritional Intervention
- Psychological Support

Norris CM et al. Anesthesia and Analgesia 2020 PMID 32384342; Row AW. Ann Acad Med Soc 2018. PMID: 31360070.

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Mobility, Functional Capacity, Cardiac Risk Assessment

- Functional status is an independent predictor of postoperative adverse events
- Wide variation in the degree of age-related changes to the respiratory and cardiovascular systems
- Mobility and gait speed assessments are important components




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Chair Sit to Stand

ASSESSMENT
30-Second Chair Stand

Purpose: To test leg strength and endurance

Equipment: A chair with a straight back without arm rests (such 37" height) and a stopwatch.

- Instruct the patient:
 - Stand in the middle of the chair
 - Place one foot on the inside shoulder rest of the chair
 - Place your feet flat on the floor
 - Keep your back straight and use your arms against your chest
 - Do NOT touch or hold anything on the back of the chair
 - Repeat #4 for 30 seconds
- On the word "Go" begin timing.
- Record the number of times the patient comes to a full standing position in 30 seconds.
- Record the number of times the patient stands in 30 seconds.

SCORING

Chair Stand
Better Average Scores

Age	Men	Women
60-64	> 10	> 10
65-69	> 10	> 10
70-74	> 10	> 10
75-79	> 10	> 10
80-84	> 10	> 10
85-89	> 10	> 10
90-94	> 10	> 10

A better average score indicates a better fit.




Assessment 30-second Chair Stand (cdc.gov). Last accessed Sept 2022

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Gait Speed Tests

ASSESSMENT
Timed Up & Go (TUG)

Purpose: To assess mobility

Equipment & resources: Stopwatch

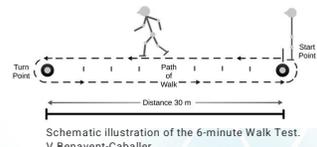
Directions: Patients wear their regular footwear and can use walking aids if needed. Begin by having the patient sit back in a standard arm chair and identify a line 3 meters, or 10 feet away on the floor.

- Instruct the patient:
 - Stand up from the chair
 - Walk to the line on the floor at your normal pace
 - Turn
 - Walk back to the chair at your normal pace
 - Sit down again
- On the word "Go" begin timing.
- Stop timing after patient sits back down.
- Record time.

Time & Scoring:

15-20 seconds

15-20 seconds



Schematic illustration of the 6-minute Walk Test. V. Benavent-Caballer.



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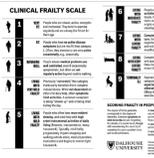
Feasibility and Rationale for Incorporating Frailty and Cognitive Screening Protocols in a Preoperative Anesthesia Clinic

Shikha Arora, MD¹, Samrat Chowdhry, MS¹, Loren Ross, MD¹, Francesca Arora, PhD², David J. Cook, PhD³, Patrick Tighe, MD, MS, BC⁴, Chris Gonsky, MD, J Cynthia W. Garver, PhD⁵, F. Kayser Enck, MD, LLT and Catherine C. Price, PhD^{1*}

BACKGROUND: Advanced age, frailty, the education level, and impaired cognition are generally recognized to be associated with postoperative cognitive dysfunction. To improve recognition of and assessment of preoperative frailty and cognitive assessment for all older adults, existing hospital protocols in a tertiary medical center were reviewed with measures of frailty, cognition, and health-related quality of life and health-related quality of life. The prevalence of frailty, cognitive impairment, and health-related quality of life were assessed in a tertiary medical center. We explored with postoperative cognitive dysfunction.

RESULTS: The prevalence of frailty, cognitive impairment, and health-related quality of life were significantly associated with age, frailty, and education. Education, which is a marker of cognitive function, was significantly associated with postoperative cognitive dysfunction. Frailty, cognitive impairment, and health-related quality of life were significantly associated with postoperative cognitive dysfunction. Frailty, cognitive impairment, and health-related quality of life were significantly associated with postoperative cognitive dysfunction.

KEY POINTS: Frailty, cognitive impairment, and health-related quality of life were significantly associated with postoperative cognitive dysfunction. Frailty, cognitive impairment, and health-related quality of life were significantly associated with postoperative cognitive dysfunction.




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Nutrition Optimization

Step 1 BMI
BMI < 18.5 (<20 if age >65)

Step 2 Weight loss score
Have you lost > 10% of body weight in last 6 months without trying?

Step 3 Intake score
Have you been eating <50% of your normal diet in preceding week?

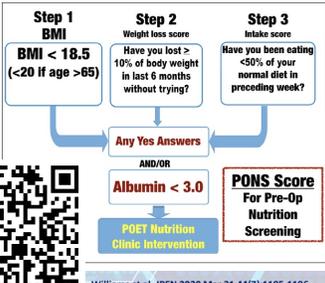
Any Yes Answers

Albumin < 3.0

PONS Score For Pre-Op Nutrition Screening

POET Nutrition Clinic Intervention

Williams et al. JPEN 2020 Mar 31;44(7):1185-1196




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Anemia Management

Severe disease-related anemia

Consider referral to GI to rule out malignancy if no obvious source of blood loss. Review BUN/Cr.

Initiate iron therapy

Iron deficiency

Treat with 200 mg Ferrous sulfate or 100 mg IV iron

Review iron status

Treat with 200 mg Ferrous sulfate or 100 mg IV iron

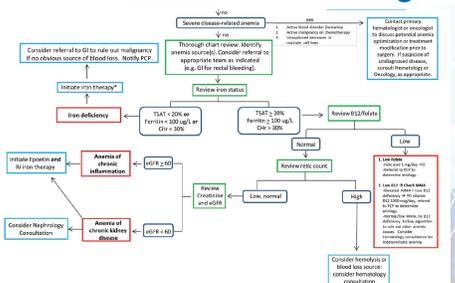
Review EPO/ESA

Normal

Low

High

Consider hematology or blood lab consult. Consider hematology consultation.




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Who Smokes?

Education Level	Prevalence
GED	43.0%
High school graduate	21.7%
Some college	19.7%
Associate degree	17.1%
Undergraduate degree	7.9%
Postgraduate degree	5.4%

Income Status	Prevalence
Below poverty level	26.3%
At or above poverty level	15.2%

Mental Health Conditions:

- 40% of men and 34% of women with a mental health condition smoke
- 31% of all cigarettes are smoked by adults with a mental health condition



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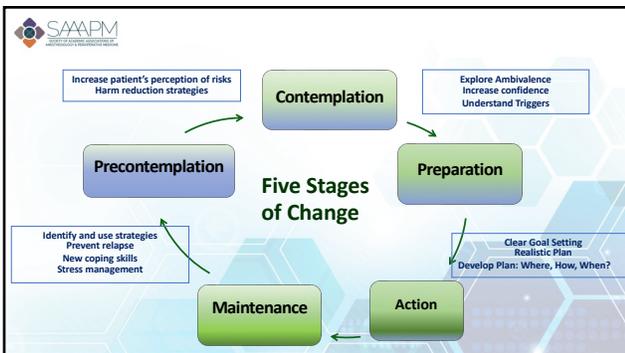
Anxiety and Depression

Postoperative Delirium: Acute Change with Long-Term Implications
 James L. Rudolph, MD, SM,*†§ and Edward R. Marcantonio, MD, SM†§
 Anesthesia and Analgesia 2011. PMID: 21474660

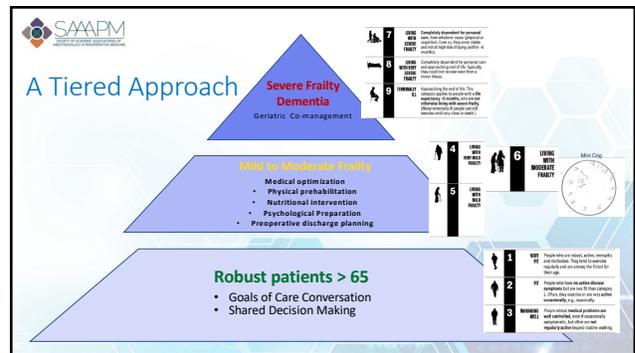
Measures of Executive Function and Depression Identify Patients at Risk for Postoperative Delirium
 Nathaniel H. Greene, B.S.,* Deborah K. Attk, Ph.D.,† B. Cray Walton, M.D.,‡ Patrick J. Smith, M.A.,§
 David L. McDonagh, M.D.,‡ Tam G. Monk, M.D., M.S.F.
 Anesthesiology 2009. PMID: 19326494



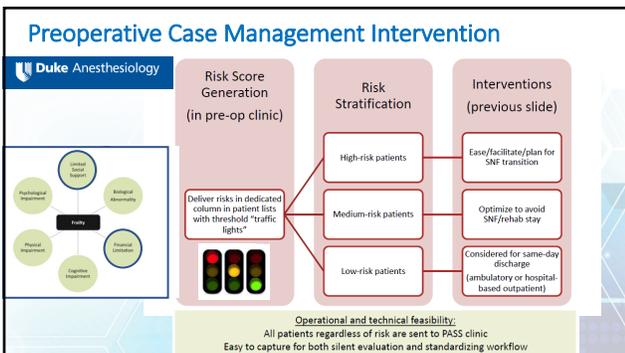

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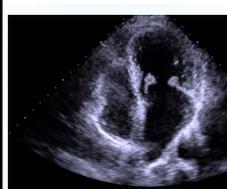
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Role of diagnostic point-of-care ultrasound in preoperative optimization: a narrative review

Sunder Krishnan, MD¹, Yury S. Bronshteyn, MD, FASE^{2†}
 PMID: 34686645

ASA Education Center

Diagnostic POCUS Certificate Program

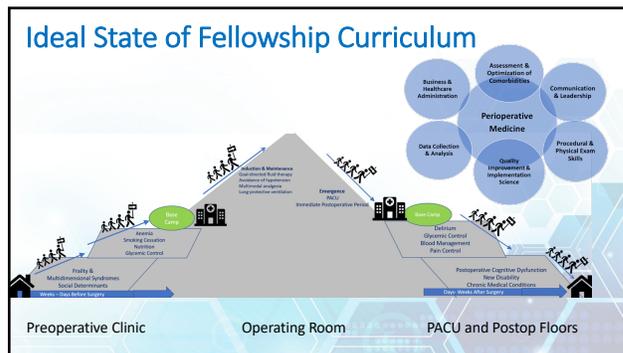


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Perspective JAMA Internal Medicine
 August 2015
Communication—The Most Challenging Procedure
 Shunichi Nakagawa, MD¹
Author Affiliations | Article Information
JAMA Intern Med. 2015;175(8):1268-1269. doi:10.1001/jamainternmed.2015.2220




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ASA Ad Hoc Committee on Perioperative Medicine

- Most key systems-based and interdisciplinary concepts required for success are not included in current residency curriculum
- Multiple POM fellowships exist, but lack standardization
- **Aim: To develop and define a standardized set of competencies to be included in perioperative medicine (POM) fellowship training programs for anesthesiologists in the United States**

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Fellowship Workgroup Members

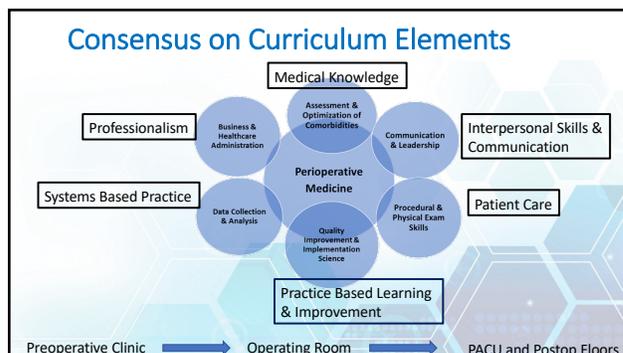
- Current Perioperative Medicine Fellowship Directors
- Former Fellows active in Perioperative Medicine
- Education Development and Research Expert
- National and International Experts in Perioperative Medicine
- Chairs of Academic Anesthesiology Departments
- ASA Leadership

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In-Person Clinical Perioperative Medicine, Quality, and Safety Fellowships in the US

 VANDERBILT UNIVERSITY MEDICAL CENTER	 UNIVERSITY OF WASHINGTON MEDICAL CENTER	 UNIVERSITY OF CALIFORNIA - IRVINE	 WASHINGTON UNIVERSITY IN ST. LOUIS SCHOOL OF MEDICINE
 BRIGHAM HEALTH BRIGHAM AND WOMEN'S HOSPITAL	 Wake Forest [™] Baptist Medical Center	 UC San Diego HEALTH SYSTEM	
 DukeHealth	 Beth Israel Lahey Health Beth Israel Deaconess Medical Center	 UCLA Health	 Stanford MEDICINE
 Tulane Health System	 MICHIGAN MEDICINE		

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Next Steps

- Provide a reference document to align programs and standardize the definition of a fellowship trained POM physician
- Planned submission end of 2022
- Additional studies to determine the value and utility of the recommendations across different healthcare systems and practice environments
- Feedback re: barriers and facilitators of implementation at the departmental and institutional level

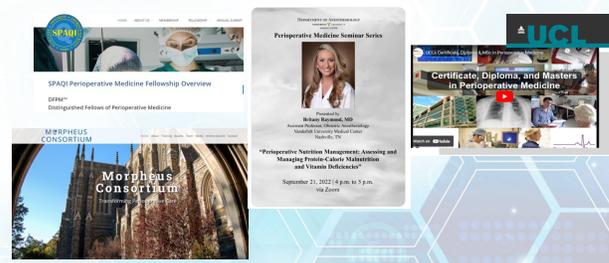
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Non-Traditional Training Opportunities

- Preceptorships at various hospitals with strong POM programs



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Summary

- Support existing clinical fellowships by referring residents
- Create positions for POM specialists within your departments
- Leverage non-traditional training opportunities for anesthesiologists interested in POM
- Promote the value of a POM-trained anesthesiologist

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Ikigai

A JAPANESE CONCEPT MEANING "A REASON FOR BEING"



MISSION (top): Delight and fullness, but no wealth
PROFESSION (left): What you are GOOD AT
VOCATION (right): What the world NEEDS
PASSION (bottom): What you can be PAID FOR
Ikigai (center): The intersection of all four

Satisfaction but feeling of uselessness (top-left)
 Comfortable but feeling of emptiness (bottom-left)
 Excitement and complacency, but sense of uncertainty (bottom-right)

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[@Jeanna_BlitzMD](https://twitter.com/Jeanna_BlitzMD)



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