

The Good, The Bad, and The Ugly

General Surgery Training in the Era of Duty Hour Restrictions

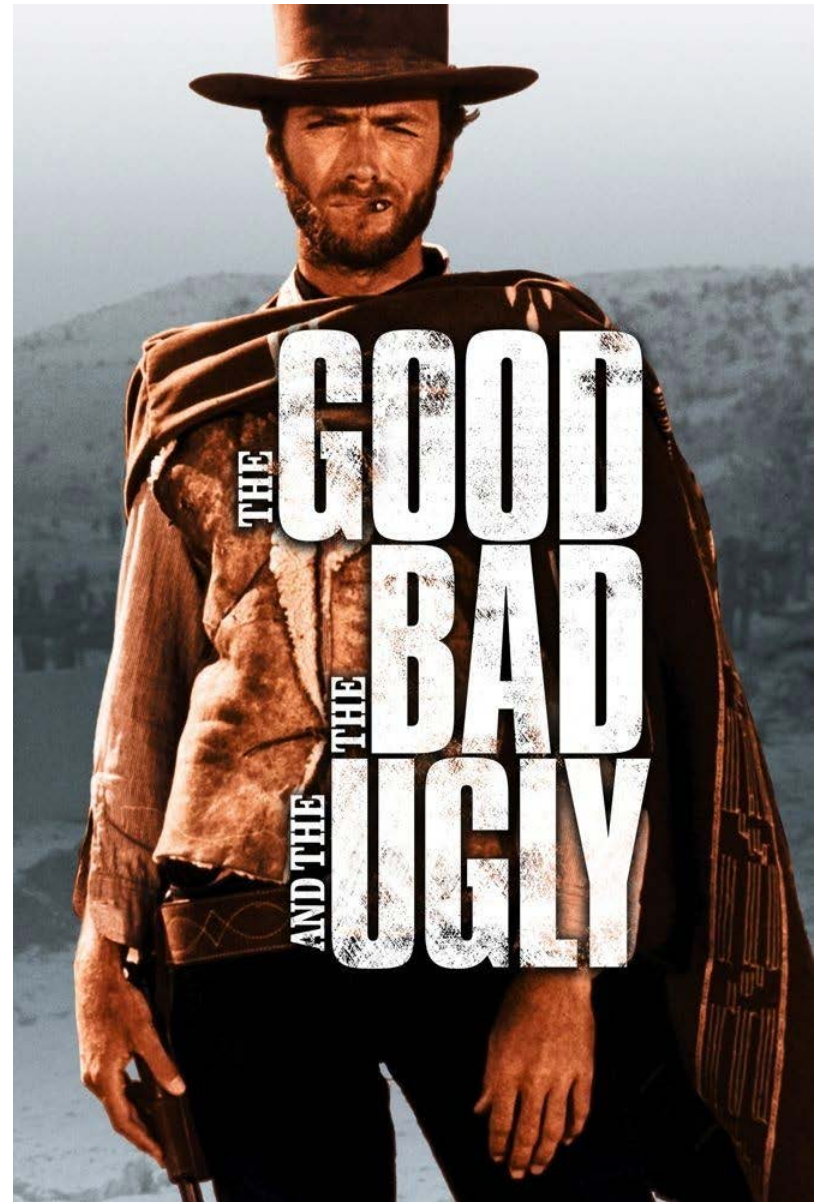
Farrell Adkins, MD

Zachary Baker, MD

Department of Surgery

West Virginia University School of Medicine

No Disclosures



Objectives

- Duty Hour Restrictions
 - The Good
 - The Bad
 - The Ugly



The Good

- Hutter et. al. *Ann Surg* (2006)
 - Better Quality of Life
 - Less Emotional Exhaustion
 - Lower Burnout Scores
- Kort et. al. *Surgery* (2004)
 - Increased personal time
 - Decreased fatigue
 - More time for family

The Good

- Immerman et. al. *Am J Orthop* (2007)
 - Survey Orthopedic residents
 - Quality of life improved
- Schneider et. al. *JACS* (2007)
 - Quality of life improved

The Good

- Drake et. al. *J Trauma* (2012)
 - Residents performing fewer Trauma operations
 - Majority of decrease occurring before the duty hours
- Simien et. al. *Ann Surg* (2010)
 - No change in operative volume for PRS
 - Mixed changes by category for general surgery residents
 - Increased operative volume for urology

The Good

- Simien et. al. *J Grad Med Educ* (2011)
 - No change in operative volume for surgical specialty: vascular and pediatric
- Occhino et. al. *Gynecol Obstet Invest* (2011)
 - No change in operative volume for OB/GYN procedures
- Pappas et. al. *JBJS* (2007)
 - No change in operative volume for Ortho procedures

The Good

- Durkin et. al. *J Surg Ed* (2008)
 - ABSITE scores improved significantly
- Increasing ABS QE Scores
 - 2012—81% First Time Pass Rate

The Good

- Adkins et. al. (In Submission)
 - Improved Gender Equality
 - 65% Increase in growth rate of women in general surgery training

The Good--Summary

- Improved Quality of Life
- Equivalent Operative Experience
- Improved ABSITE and ABS QE Scores
- Improved Gender Equality



The Bad

- Hutter et. al. *Ann Surg* (2006)
 - No Difference in the Quality of Patient Care
- Jamal et. al. *Br J Surg* (2012)
 - No alteration in Morbidity and Mortality

The Bad

- Helling et. al. *J Trauma* (2010)
 - No effect on trauma center outcomes
- de Virgilio et. al. *Curr Surg* (2006)
 - No effect on trauma outcomes

The Bad

- Picarella et. al. *J Surg Ed* (2011)
 - No change in Surgeon experience
 - Decrease in FA experience
- Hope et. al. *J Surg Ed* (2011)
 - Increase in uncovered cases

The Bad

- Antiel et. al. *JAMA Surg* (2013)
 - First Class of Intern Duty Hours
 - Decreased Coordination of Care (53%)
 - Decreased Continuity of Care (70%)
 - Decreased Time in OR (57%)

The Bad

- Coverdill et. al. *Acad Med* (2010)
 - Poor guidance on transitions of care
 - Residents rely on personal discretion
- Scoglietti et. al. *Am Surg* (2010)
 - Resident signout predicted only 42% of adverse events

The Bad

- Lee et. al. *JACS* (2012)
 - 75% Residents Unsatisfied with Duty Hours
 - 87% PGY II-IV
 - 89% PGY II-IV Reported Shift of Responsibilities
 - 73% PGY II-IV Reported Increased Fatigue

The Bad

- Coverdil et. al. *Acad Med* (2006)
 - Effects on Academic Faculty
 - Shift of work from residents to faculty
 - Transfer of responsibility to faculty
 - Loss of time for research

The Bad

- Nakayama et. al. *Am Surg* (2009)
 - Decreased operative continuity of care in operations that address complications

The Bad

- Veazy Brooks et. al. *Soc Sci Med* (2012)
 - Concern for altered occupational identity

The Bad--Summary

- No change in Morbidity/Mortality
- No improvement in Quality of Care
- Impact on FA Experience
- Decreased Coordination of Care
- Increased Transitions of Care
- Inadequate Signout
- Shift in Responsibility
- Change in Occupational Identity



The Ugly

- Antiel et. al. *JAMA Surg* (2013)
 - First Class of Intern Duty Hours
 - Emotional Exhaustion (28%)
 - Depersonalization (28%)
 - Poor personal-professional balance (32%)

The Ugly

- Decreasing ABS CE Scores
 - 2012—72% First Time Pass Rate

The Ugly

- Lee et. al. *JACS* (2012)
 - 86% of residents believe there is a decreased level of patient ownership

The Ugly

- Durmont et. al. *Neurosurg* (2012)
 - Patient undergoing craniotomy for meningioma
 - Complication rate increased to 16% from 14% ($p < 0.001$) at teaching institutions

The Ugly

- Antiel et. al. *Mayo Clin Proc* (2011)
 - Program Director concern for achieving competency in 5 of 6 core competencies

The Ugly

- Snyder et. al. *J Surg Ed* (2012)
 - Most residents feel that they do not perform all of an operation yet log cases as primary surgeon.

The Ugly

- Need to Increase Length of Training?
- Development of ACS Transition to Practice Fellowships

The Ugly--Summary

- Increased complication rate
- Decreased ABS CE Scores
- Decreased patient ownership
- Increasing concern for competency
- Decreased readiness for practice

Summary

- Duty Hour Restrictions
 - Results are Mixed
 - Failed to achieve primary objectives
 - Require continued surveillance and review of outcomes; evolving models of training

Questions??