

Physician Agreements

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Physician Agreements – Anesthesia Institutional Support and Surgeon Block Time



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Financial Disclosure

- Employment
 - I am employed by the University of Iowa, in part, to consult and analyze data for hospitals, anesthesia groups, and companies
 - Department of Anesthesia bills for my time
 - I receive no funds other than from the University of Iowa, including no travel reimbursement or honorarium
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 - I have tenure with no incentive program

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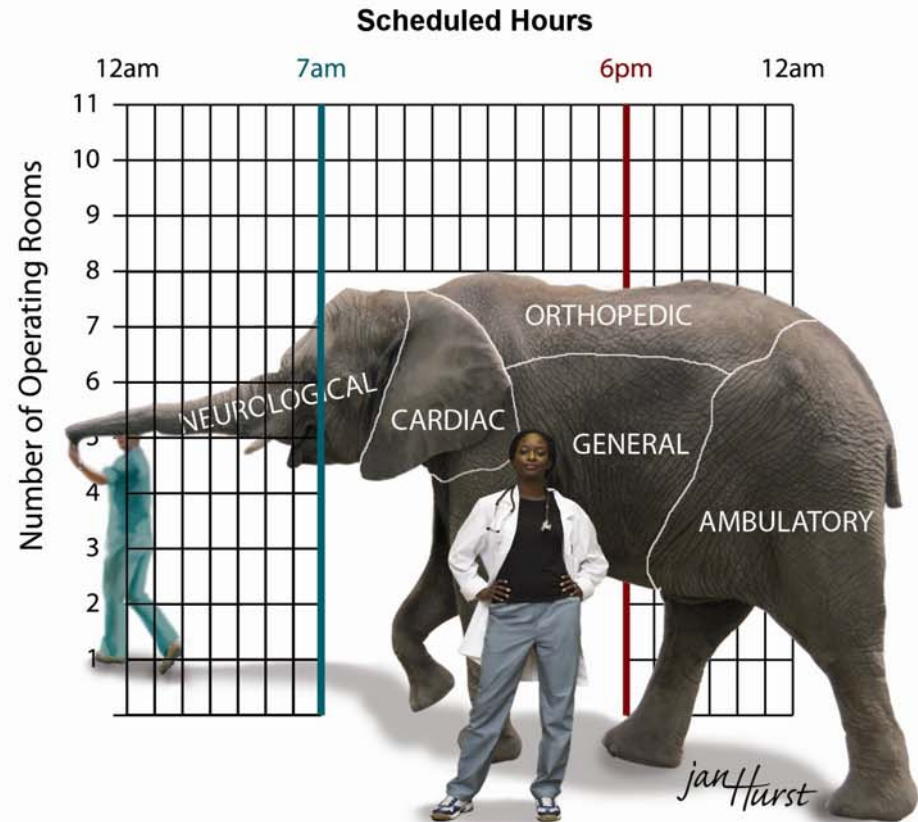
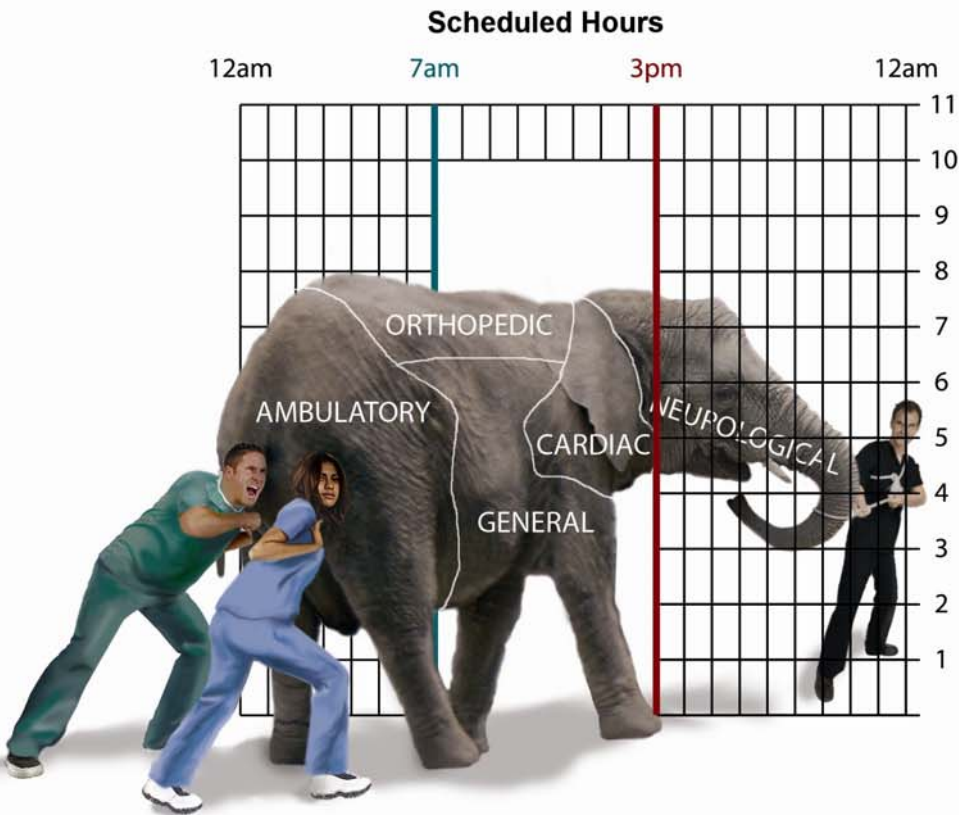
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Normative Models → Understanding Implementation

- Good understanding of how to increase productivity of anesthesia providers
 - Nationwide, not an issue of working faster
 - Better match staffed hours for each specialty to the times that anesthesia providers are actually working to do those cases
 - Increase allocative efficiency
 - Under vs. over-utilized OR time

McIntosh et al. Anesth Analg 2006





“You are not going to get the elephant to shrink or change its size. You need to face the fact that the elephant is 8 OR tall and 11 hr wide.”

Steven Shafer, MD

Observational Data on *Durations of Workday*

- For 11 of 13 suites, staffing plan to maximize OR efficiency had costs at least 10% less than that being used by the managers
 - Managers did not have right number of staff, working the right number of hours, on the right days of the week, for specific surgical services

Dexter et al. Anesth Analg 2001

Abouleish et al. Anesth Analg 2003

Freytag et al. Der Chirurg 2005

McIntosh et al. Anesth Analg 2006



Observational Data on *Numbers of ORs*

- Average 5.5 hr of OR time per OR per day at 8 US community hospitals' ORs with knee and hip replacement surgery
- Average 6.0 hr of anesthesia time per OR per day at 11 US community anesthesia groups
- Average 55% utilization of staffed OR time at UK day surgery ORs

Commission for Healthcare Audit and Inspection, July 2005

Dexter et al. Health Care Manag Sci 2006

Abouleish et al. Anesthesiology 2002



Normative Models → Understanding Implementation

- Good understanding of how to increase productivity of anesthesia providers
 - Nationwide, not an issue of working faster
 - Better match staffed hours for each specialty to the times that anesthesia providers are actually working to do those cases
- Why do some hospitals and groups implement promptly while others do not?



Normative Models → Understanding Implementation

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 - Nationwide, not an issue of working faster
 - Better match staffed hours for each specialty to the times that anesthesia providers are actually working to do those cases
- Why do some hospitals and groups implement promptly while others do not?
 - Why are groups not sending an engineer and an anesthesiologist to my course?

Hypothesis: Contracts with Hospitals Produce Disincentives

- Academic anesthesia departments in the US receive an average of \$136,000 per anesthesiologist in institutional support

Kheterpal et al. Anesth Analg 2009



Hypothesis: Contracts with Hospitals Produce Disincentives

- Academic anesthesia departments in the US receive an average of \$136,000 per anesthesiologist in institutional support
 - Can we be more precise about what is being paid for other than "under-utilized OR time?"
 - How use incentives to increase productivity?



What Effectively is Being Paid For in Agreements?

“The anesthesia group will provide a minimum of six anesthesiologists covering weekdays from 7:00 AM to 5:00 PM. In addition, one anesthesiologist will provide coverage for emergency surgery between 5:00 PM and 7:00 AM and for twenty-four hours on weekends and holidays. In exchange, the group will be compensated at a monthly rate of **\$75,000**. The group shall be entitled to bill and collect for anesthesia professional services rendered to patients.”



What Effectively is Being Paid For in Agreements?

- Less common basis for payment is reasonable rate per hour for clinical services
- More common basis for payment is same reasonable rate per hour for non-clinical time

Dexter & Epstein. Anesth Analg 2008



Organization of Anesthesia

Portion of this Talk

- Less common basis for payment is reasonable rate per hour for clinical services
 - Precedent for hospital or multi-specialty group
 - Scenario showing why fixed monthly payment
- More common basis for payment is same reasonable rate per hour for non-clinical time
 - Incentives for managerial initiatives
 - Underpayment or overpayment of support
 - Advantage for anesthesia group



Less Common Basis for Payment in Agreement

- Hospital is providing sufficient payment to guarantee group makes a reasonable profit
 - Fair market rate is being paid for the availability of the anesthesia providers
 - Anesthesia group is effectively salaried
 - Since annual collections are predictable, profit is same (within 1%) if hospital pays more and keeps the collections



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- *Hospital has established precedent for other specialties and groups*



Scenario Showing the Precedent

- OR workload is sufficient for 5 ORs, not 6 ORs
- Negotiations for > 1 yr without an agreement
- An anesthesiologist leaves the group
- Group's profit increased by not replacing him
- Group informs OR block committee that it will often be able to staff only 5 ORs, not 6 ORs
- Surgeons complain to administrators
- Hospital signs lucrative agreement with group



Scenario Showing the Precedent

- Scuttlebutt among physicians is that the anesthesia group (“labor”) successfully used a work slowdown to motivate the hospital (i.e., “the firm”) to agree to a lucrative labor agreement based on the hospital assuring the group’s profit
- Same principle applies if instead of hospital providing the support it is from multiple specialty group to one of its departments



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Scenario Showing Why Fixed Monthly Payment

- 20 academic anesthesiologists staff 36 ORs
- Overall 10 hr per day of time for lectures, administrative and educational meetings, etc.
 - Anesthesiologists doing them are assigned daily to the briefest ORs
- Initiatives with administrators and surgeons grow OR workload by 5% over 9 months
- Group recruits 1 additional anesthesiologist to cover the increased clinical workload



Scenario Showing Why Fixed Monthly Payment

- Collections increased by 5%
 - Hospital support reduced by 5%
- Costs increased by 5%
- Group's profit reduced by 5%



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- Agreement with variable monthly payment based on workload (collections) results in negative expected net present value for initiatives that would grow the practice



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 - Hospital support reduced by 5%
 - Costs increased by 5%
 - Group's profit reduced by 5%
 - Agreement with variable monthly payment based on workload (collections) results in negative expected net present value for initiatives that would grow the practice
- "It is as if the anesthesiologists don't want to do more cases"



More Common Basis for Payment of Support

- Hospital compensates group for expected incremental hours of under-utilized OR time
 - Payment at reasonable (fair market) rate for component of the clinically idle time that is due to less than optimal scheduling practices
- Support fundamentally same as hospital compensating the group for anesthesiologist who serves as the OR medical director
 - Time spent managing the OR rather than rendering reimbursable patient care



Consequence of Basis for Payment of Support

- Hospital can stipulate management provided
 - Assist colleagues to reduce turnover times
 - Facilitate decision-making on day of surgery
 - Manage case scheduling
 - Collaborate with analysts on marketing, etc.



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Anesthesiologists With Finished ORs Stay to Help In $\geq 3:2$ Ratio

- Increased productivity from 5 versus 4 anesthesia & nursing teams assigned to 4 ORs
- Increased productivity from 4 versus 3 anesthesiologists assigned to 3 ORs
- Reduced productivity from 3 versus 2 anesthesia providers assigned to 2 ORs

Torkki et al. Anesthesiology 2005

Hanns et al. Anesthesiology 2005

Williams et al. Am J Anesthesiol 1998



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- Lack of such terms explains lack of role of anesthesiologists in management



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 - Payment without service may be a kickback

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 - Manage case scheduling
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- Lack of such terms explains lack of role of anesthesiologists in management
 - Payment without service may be a kickback
- Contractually obligated non-clinical service without payment may be a reverse kickback

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Underpayment or Overpayment of Support

- Orthopedic center 30 ± 10 hr of workload daily
- 34 hr of staffing (3 ORs \times 8 hr & 1 OR \times 10 hr)
 - $34 \text{ hr} = 30 \text{ hr} + \Phi(2/3) \times 10 \text{ hr}$
- Average 6.3 hr under-utilized OR time daily
 - Staffing 34 hr reduces anesthesia group's costs by shrinking more expensive over-utilized OR time relative to staffing 30 hr or 32 hr
- 0.0 hr is incremental under-utilized OR time caused by OR allocation and case scheduling
 - No support should be provided



Underpayment or Overpayment of Support

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- 34 hr of staffing (3 ORs \times 8 hr & 1 OR \times 10 hr)
 - $34 \text{ hr} = 30 \text{ hr} + \Phi(2/3) \times 10 \text{ hr}$
- Average 2.3 hr **over**-utilized OR time daily
 - Yet, zero (0) inefficiency of use of anesthesia time caused by OR allocation & case scheduling
 - One reason why support based solely on over-utilized OR time is suboptimal
 - Other reason is that group has resulting negative expected net present value for initiatives that would reduce turnover times

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Compare Anesthesia Group Profit Between Agreements

- Algebra shows agreements provide same support for the under-utilized OR time, but not for the billable anesthesia time
- Anesthesia group makes this comparison:
 - a. Highest compensation per scheduled hour that it can reasonably expect to negotiate as support if it were to provide billing data
 - b. Net collections per hour of billed time
- Since usually $(b) > (a)$, usually larger profit with support just for the non-clinical time

Advantage From Hospital's Perspective Despite Support

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Worst Case Scenario is no Agreement on Staffing

- “Group will provide reasonable coverage”
- Since “safety criteria” of the 5 ordered priorities will be affected, the consequences are that it is impossible to:
 - Make systematic decisions on day of surgery
 - Implement decision support for day of surgery
 - Calculate appropriate OR allocations
 - Schedule cases to reduce over-utilized time
 - Make good tactical decisions
 - Apply targeted turnover time reductions

Worst Case Scenario is no Agreement on Staffing

- Consider special case of desired staffing = that maximizing efficiency of use of OR time
- Then, since staffing plan is (truly) optimal both for hospital and group, there should be no need for agreement to specify staffing



Worst Case Scenario is no Agreement on Staffing

- Consider special case of desired staffing = that maximizing efficiency of use of OR time
- Then, since staffing plan is (truly) optimal both for hospital and group, there should be no need for agreement to specify staffing
- Untrue because psychological biases and organizational pressures often result in economically suboptimal decisions

Dexter et al. Anesth Analg 2007, 2009

Masursky et al. Anesth Analg 2008

Stepaniak et al. Anesth Analg 2009



Worst Case Scenario is no Agreement on Staffing

- If no support is desired:
 - At 4 month intervals calculate staffing based on maximizing efficiency of use of OR time
 - By service and day of the week
 - Anesthesia group and hospital agree that staffing will be chosen months ahead and used subsequently for relevant decisions
 - Minimum will be that calculated as above
 - More ORs and/or hours will be planned only upon agreement of both parties

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Surgeon Block Time

- Show example report to orient you to topic
- Explain why we are considering the topic
- Explain the science
 - Calculating blocks per 2 weeks
 - Surgeon chooses when to release block
 - Why not ...
 - Case scheduling into blocks
 - Some flexibility to numbers of blocks?
 - Block based on utilization?



Example of Block Report

<u>Service</u>	<u>Surgeon</u>	<u>Maximum 8-Hr Blocks per 2 Weeks</u>
Orthopedics	Surgeon 1	5
	Surgeon 2	4
	Surgeon 3	3
	Surgeon 4	2
	Surgeon 5	1
Oral Surgery	Surgeon 6	3
	Surgeon 7	1
Wolf	Amy Wolf	3

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Topic Covered is One of Two Elements of Surgeon Blocks

- One topic is the allocation of additional surgeon-specific block time, beyond that needed for current cases
 - Topic involves making decisions tactically (e.g., once a year) at a budget meeting
 - Different topic, different talk
- Second topic is the fine-tuning of the master surgery schedule every couple of months based on existing workload
 - Topic covered



Block Time Increases Surgeons' Predictability of Start Times

- Surgeon blocks can be used to enhance the likelihood that available scheduled start times are convenient and predictable
- Surgeon blocks can both increase and reduce efficiency of use of OR time
 - Increase by preventing cancellations from double use of same equipment, ICU beds, etc.
 - Reduce by poorly filling service's OR time



Block Time Increases Surgeons' Predictability of Start Times

- If you want to focus on surgeon blocks to motivate a surgeon to do more cases at your hospital, then this is the wrong talk
 - That topic involves contribution margin and value added or lost by the growth

Dexter et al. Anesth Analg 2005

O'Neill & Dexter. Anesth Analg 2007



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Dexter et al. Anesth Analg 1999



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Calculating Blocks per 2 Weeks

Service

Surgeon

Maximum 8-Hr Blocks per 2 Weeks

Orthopedics

Surgeon 1

5

Surgeon 2

4

Surgeon 3

3

Surgeon 4

2

Surgeon 5

1

Oral Surgery

Surgeon 6

3

Surgeon 7

1

Wolf

Amy Wolf

3

Calculating Blocks per 2 Weeks

- Calculate the number of blocks that surgeon can fill consistently each 2 week period
 - Most easily done literally by seeing how many blocks surgeon fills consistently
 - No target utilization to be maintained



Surgeon Chooses When to Release Block

- Once surgeon has filled or released a block within the 4 week cycle, then can schedule elective case outside of block time

Four weeks = $2 \times$ "per 2 Weeks"

Dexter et al. Anesth Analg 1999



Case Scheduling into Blocks

- Unimportant how cases are scheduled into block time, provided elective cases are not scheduled into the service's non-blocked time until the surgeon has filled his or her blocks

Dexter F, Traub RD. Anesth Analg 2002

Van Houdenhoven M et al. Anesth Analg 2007



Why Not Have Flexibility of One Block a Bit Empty?

- Large reduction in average adjusted utilization
- Treats surgeons unequally, with those fully filling their blocks having longer patient waits than a surgeon with one nearly empty block each week
- Will run out of OR time, with the sum of the blocks for surgeons within a service exceeding the allocated OR time for the service



Why Not Block Time Based on Adjusted Utilization?

- Short answer is to see entire talk on allocating OR time tactically based on OR utilization
- Longer answer is that highest possible adjusted utilization ranges from 40% to 97% based on factors that surgeon rarely controls
 - Case scheduling rules, mean case duration, mean weeks that patients wait, hours in each block, and blocks per week



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Additional Information on Operating Room Management

- www.FranklinDexter.net
 - Comprehensive bibliography of peer reviewed articles in operating room and anesthesia group management
 - Lectures on service-specific OR staffing, day of surgery decision making, anesthesia staffing, turnover times, drug and supply costs, comparing procedures among hospitals, strategic decision making, and PACU staffing
 - Contact information

