The Down and Dirty of Anesthesia Delivery Models and Billing

Robin Birchenough MS, CRNA/APN

Dog lover, momma, grandmomma, yoga instructor, runner, lifelong learner, closet comedian

Objectives

- Analyze the historical factors that led to current anesthesia delivery models and billing models
- Compare and contrast current common anesthesia delivery models and how they are billed
- State components for billing an anesthesia case and how revenue is generated
- Apply the components for billing an anesthesia case to compute revenue
- Understand how the value-based approach to billing effects Medicare reimbursement

But first…the history

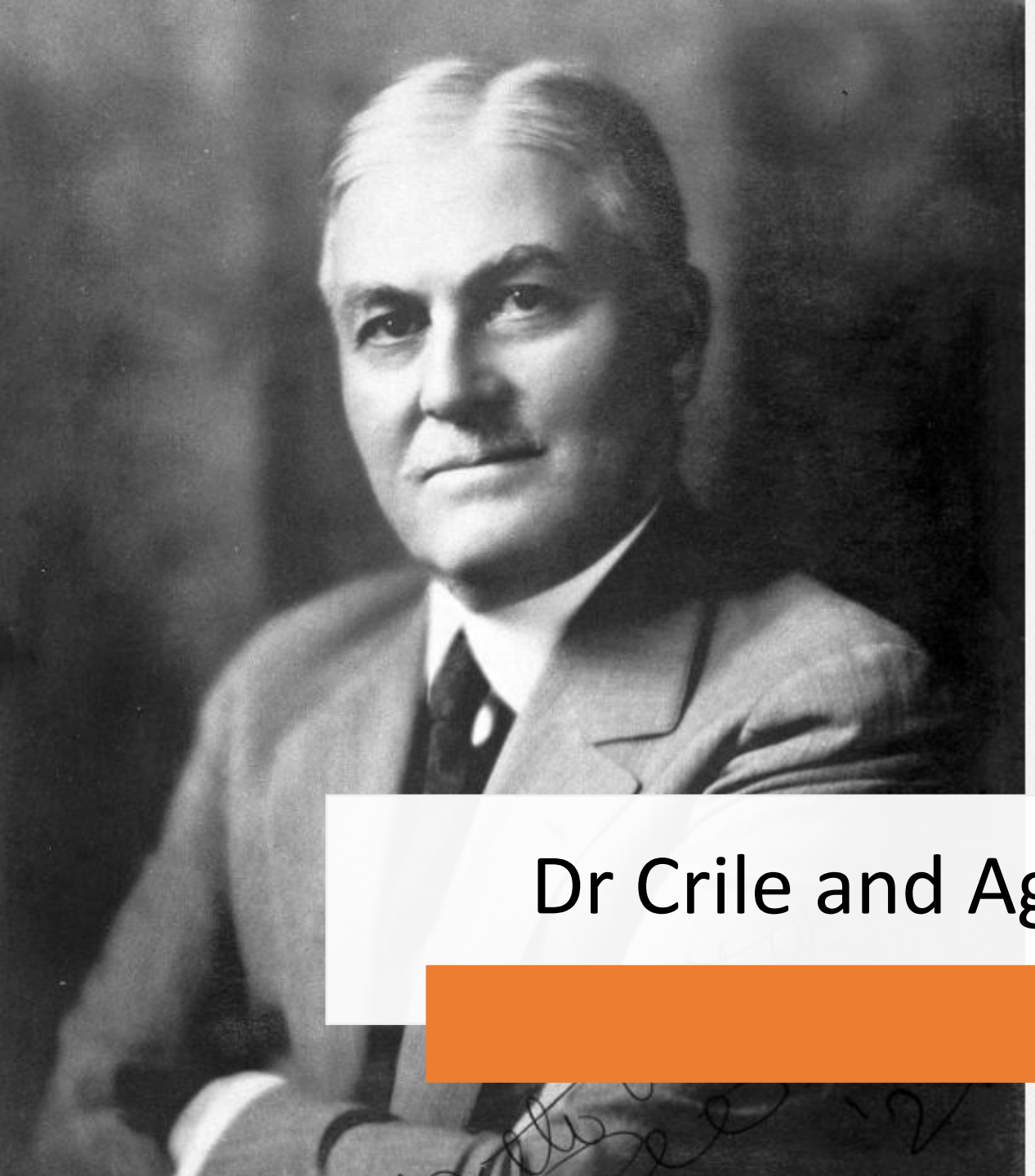
1800—early 1900s: nurses, nuns, trainees
few physician anesthesiologists

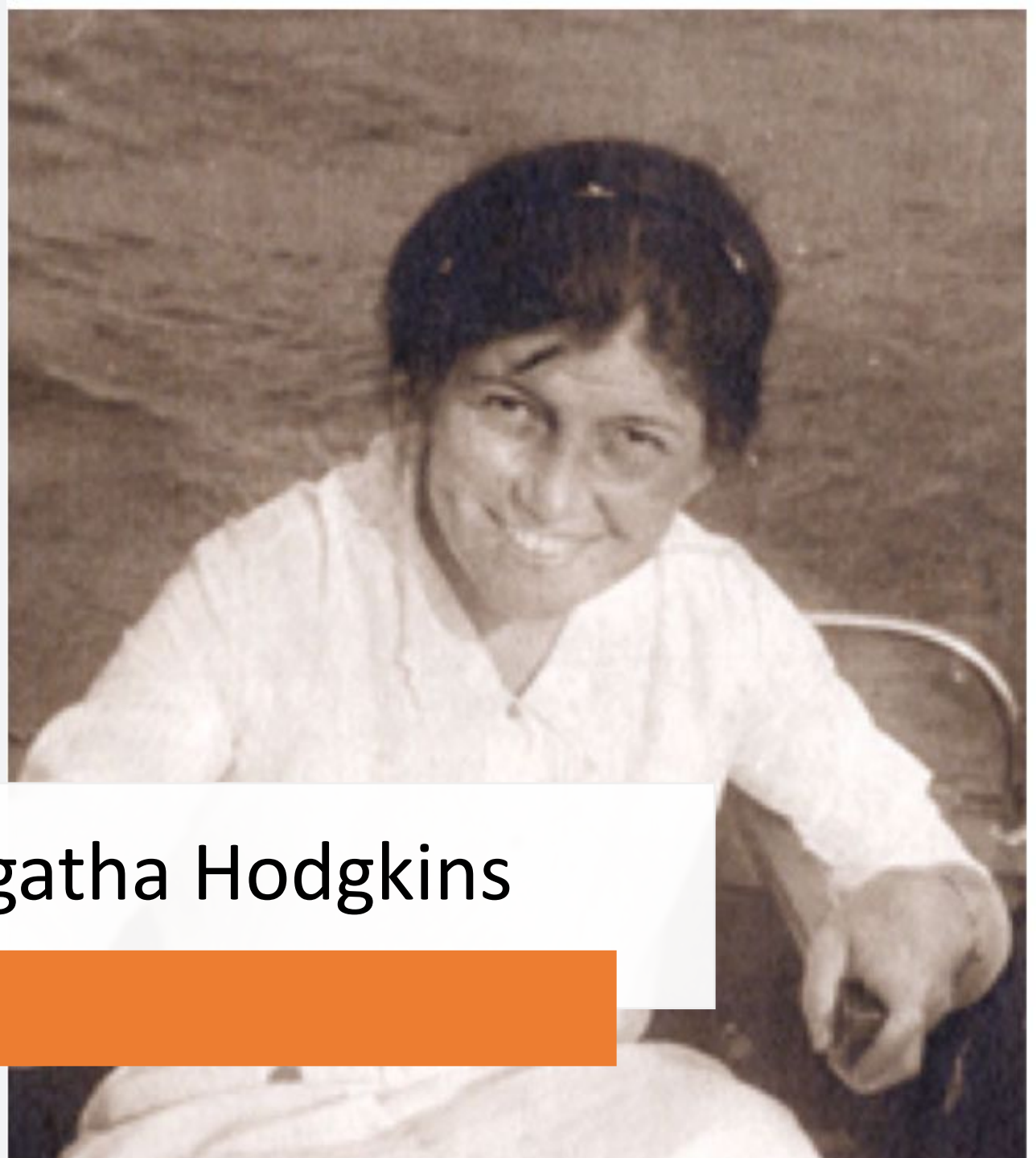
1917: First formal nurse anesthesia programs

Dr Francis McMechan MDA: anesthesia should only be delivered by physicians, petitions the Ohio State Board of Medicine

Dr Crile: worked with many nurse anesthetists
(created nurse anesthesia program) suggests compromise: nurses practice in the immediate presence/supervision of a physician

1919-1936 : Several states adopt statutes recognizing nurse anesthesia as a practice that is performed under the supervision of a physician (in most cases, the surgeon)
Uniformly practiced





Dr Crile and Agatha Hodgkins

World War II: demand for anesthesia providers increases for military, physician anesthesiologists in service
Nurse anesthetist: MD 17:1

After WWII: Demand decreases, physician anesthesiologists return and react to this as a threat. Wage massive campaign against nurse anesthetists circa 1947
Private insurance: More lucrative (1930-40s)

Will you survive your operation?

Not qualified for the job!

Nurse anesthesia programs decrease in response to this campaign

1960-1970s: Not enough providers

Congress increases funding for physician anesthesiologist training.

CRNA growth 70%

MDA growth 300%

Medicare/Medicaid 1965 (CRNA Cannot bill directly)

1970: MDAs continue to portray anesthesia as a physician only practice

Push not to train CRNAs, programs close

MDA to CRNA ratio 1: 1.5

How did CRNAs vs MDAs get paid?

- MDS
- Could bill both private insurance and Medicare directly
- Usual and customary reimbursement
- Kept a portion billed for CRNA if they were working “with” one as

CRNA could not bill Medicare directly

- CRNAs
- Either contracted/employed by hospital who billed for them and gave the CRNA a %/salary
- OR
- Was employed by a surgeon** or MDA who billed insurance/Medicare for the CRNA and kept a %

And along comes TEFRA…

- MDAs acting as supervising physicians and employing a CRNA are keeping a % for themselves and are not "supervising"… "present"
- Surgeons as "whistleblowers"
- 25-40% of fraud and abuse investigations reported to CMS in 70s were directed at anesthesiologists

1980s TEFRA: close loopholes in tax system stricter compliance in business, including healthcare.

Largest tax increase when adjusted for inflation

Seven TEFRA Commandments

Performs a pre-anesthetic examination and evaluation

Prescribe the anesthesia plan

Personally participate in most demanding procedures in the plan
Including induction and emergence

Ensure a qualified individual performs any procedures that
Anesthesiologist does not personally perform

Monitor the course of anesthetic at frequent intervals

Remain physically present for key parts of procedure/available for
Dx/tx emergencies**

Provide PACU care as indicated

OMNIBUS RECONCILIATION ACT

LATE 1980's

CRNAS NOT PHYSICIAN EXTENDERS AS OTHER APNS

CRNAS CAN BE REIMBURSED UNDER MEDICARE

Medicare Part A vs Medicare Part B

Medicare Part A: Hospital Inpt, HHC, Hospice, SNF

Medicare Part B: Outpt Services
Docs and other healthcare providers

PAUSE

Tax Equity and Fiscal Responsibility Act 1982

Table 3. TEFRA Elements to Satisfy in Care of a Patient

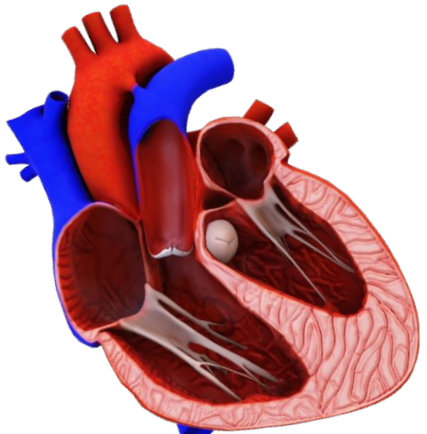
1. Perform a preanesthesia examination and evaluation.
2. Prescribe the anesthesia plan.
3. Personally participate in the most demanding aspects of the anesthesia plan including, if applicable, induction and emergence.
4. Ensure that any procedure in the anesthesia plan that he or she does not personally perform is performed by a qualified individual.
5. Monitor the course of anesthesia administration at frequent intervals.
6. Remain physically present and available for immediate diagnosis and treatment of emergencies.
7. Provide indicated postanesthesia care.

TEFRA, Tax Equity and Fiscal Responsibility Act of 1982

Billing Category	Physician Amount /CRNA amount
M.D. Personally Performed AA	100%/0%
Medical Direction QK/QX	50%/50%
Medical Supervision AD/QX	3 base units +1 time unit (if present at induction)/ 50%
CRNA Performed w/o Supervision QZ	0%/100%

MEDICAL DIRECTION MODEL

1:2-4 RATIO
TEFRA ELEMENTS
FOLLOWED
ANESTHESIA CARE TEAM
MODEL



MEDICAL DIRECTION

PROBLEMS: DUPLICATION OF SERVICES/EXPENSE
LAPSES IN TEFRA: CRITICAL PORTIONS/INTUBATION

EPSTEIN: TEFRA LAPSES IN 35% OF OR DAYS FOUND EVEN WITH 1:2 RATIO

O'NEILL: LAPSES IN CLOSER TO 90% OF CASES

So…What happens if you're billing for medical direction an do not comply with TEFRA?

QUI TAM "WHISTLEBLOWER"

US/J DONEGAN v ANES ASSOC OF KANSAS CITY

US/D'ALESSIO v VANDERBILT UNIVERSITY

US/STONE et al v TRAVERSE ANES ASSOC

MEDICAL SUPERVISION MODEL

RATIO 1:5 OR MORE

OR

IF LAPSE IN ANY TEFRA ELEMENT

MDA CAN ONLY BILL FOR 3 BASE UNITS + 1 ADD'L IF PRESENT ON INDUCTION

50% TO CRNA

Supervision vs. Direction

CRNA SOLO "QZ" BILLING

NON-OPT OUT STATE: SURGEON AS SUPERVISING PHYSICIAN
OPT OUT STATE: NO NEED FOR SUPERVISING PHYSICIAN

THE QZ MODIFIER "LURKING PROBLEM":

2009 MEDICARE CLAIMS DATA: 23.8% OF CASES BILLED QZ

QZ BILLING 3X HIGHER IN NON-OPT OUT STATES THAN OPT OUTS

PAUSE

MEDICAL DIRECTION

MEDICAL SUPERVISION

CRNA SOLO “QZ”

MD SOLO

50% OR 100% OF WHAT?

BASE UNITS: DETERMINED BY COMPLEXITY OF PROCEDURE

TIME UNITS: 15 MINUTE INCREMENTS OR MINUTES/15

CONVERSION FACTOR: $ AMT ACCTS FOR REGIONAL COST DIFFERENCES

BASE UNITS

NOTE: Procedure codes and base units are obtained from the Centers for Medicare & Medicaid Services.

Code	Units	Description
01150	10	Anesthesia for radical procedures for tumor of pelvis, except hindquarter amputation
01160	4	Anesthesia for closed procedures involving symphysis pubis or sacroiliac joint
01170	8	Anesthesia for open procedures involving symphysis pubis or sacroiliac joint
01173	12	Anesthesia for open repair of fracture disruption of pelvis or column fracture involving acetabulum
01200	4	Anesthesia for all closed procedures involving hip joint
01202	4	Anesthesia for arthroscopic procedures of hip joint
01210	6	Anesthesia for open procedures involving hip joint; not otherwise specified
01212	10	Anesthesia for open procedures involving hip joint; hip disarticulation
01214	8	Anesthesia for open procedures involving hip joint; total hip arthroplasty
01215	10	Anesthesia for open procedures involving hip joint; revision of total hip arthroplasty
01220	4	Anesthesia for all closed procedures involving upper two-thirds of femur
01230	6	Anesthesia for open procedures involving upper two-thirds of femur; not otherwise specified
01232	5	Anesthesia for open procedures involving upper two-thirds of femur; amputation
01234	8	Anesthesia for open procedures involving upper two-thirds of femur; radical resection
01250	4	Anesthesia for all procedures on nerves, muscles, tendons, fascia, and bursae of upper leg
01260	3	Anesthesia for all procedures involving veins of upper leg, including exploration
01270	8	Anesthesia for procedures involving arteries of upper leg, including bypass graft; not otherwise specified
01272	4	Anesthesia for procedures involving arteries of upper leg, including bypass graft; femoral artery ligation
01274	6	Anesthesia for procedures involving arteries of upper leg, including bypass graft; femoral artery embolectomy
01320	4	Anesthesia for all procedures on nerves, muscles, tendons, fascia, and bursae of knee and/or popliteal area
01340	4	Anesthesia for all closed procedures on lower one-third of femur
01360	5	Anesthesia for all open procedures on lower one-third of femur
01380	3	Anesthesia for all closed procedures on knee joint
01382	3	Anesthesia for diagnostic arthroscopic procedures of knee joint
01390	3	Anesthesia for all closed procedures on upper ends of tibia, fibula, and/or patella
01392	4	Anesthesia for all open procedures on upper ends of tibia, fibula, and/or patella
01400	4	Anesthesia for open or surgical arthroscopic procedures on knee joint; not otherwise specified
00635	4	Anesthesia for procedures in lumbar region; diagnostic or therapeutic lumbar puncture
00640	3	Anesthesia for manipulation of the spine or for closed procedures on the cervical, thoracic or lumbar spine
00670	13	Anesthesia for extensive spine and spinal cord procedures (eg, spinal instrumentation or vascular procedures)
00700	4	Anesthesia for procedures on upper anterior abdominal wall; not otherwise specified
00702	4	Anesthesia for procedures on upper anterior abdominal wall; percutaneous liver biopsy
00730	5	Anesthesia for procedures on upper posterior abdominal wall
00731	5	Anesthesia for upper gastrointestinal endoscopic procedures, endoscope introduced proximal to duodenum, not otherwise specified
00732	5	Anesthesia for upper gastrointestinal endoscopic procedures, endoscope introduced proximal to duodenum, endoscopic retrograde cholangiopancreatography (ERCP)
00750	4	Anesthesia for hernia repairs in upper abdomen; not otherwise specified
00752	6	Anesthesia for hernia repairs in upper abdomen; lumbar and ventral (incisional) hernias and/or wound dehiscence
00754	7	Anesthesia for hernia repairs in upper abdomen; omphalocele
00756	7	Anesthesia for hernia repairs in upper abdomen; transabdominal repair of diaphragmatic hernia
00770	15	Anesthesia for all procedures on major abdominal blood vessels
00790	7	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; not otherwise specified
00792	13	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; partial hepatectomy or management of liver hemorrhage (excluding liver biopsy)
00794	8	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; pancreatectomy, partial or total (eg, Whipple procedure)
00796	30	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; liver transplant (recipient)
00797	11	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; gastric restrictive procedure for morbid obesity
00800	4	Anesthesia for procedures on lower anterior abdominal wall; not otherwise specified
00802	5	Anesthesia for procedures on lower anterior abdominal wall; panniculectomy
00811	5	Anesthesia for lower intestinal indoscopic procedures, endoscope introduced distal to duodenum, not otherwise specified
00812	5	Anesthesia for lower intestinal indoscopic procedures, endoscope introduced distal to duodenum, screening colonoscopy
00813	5	Anesthesia for combined upper and lower gastrointestinal endoscopic procedures, endoscope introduced both proximal to and distal to the duodenum

TIME UNITS

- Billed in 15 minute increments
- Divide amount of time in minutes by 15, round to the nearest tenth
- 41 minutes /15 = 2.73
- 2.7 time units can be billed
- Preop eval is considered in billing and cannot be billed
- Time to do lines/IV/sedate pt should be billed discontinuous

CONVERSION FACTOR

- $ Amount assigned to a relative value unit (RVU)
- RVU has three elements:
- Relative value of physical work
- Relative value of practice expense
- Relative value of malpractice insurance
- Also considered in equation: overall state of economy, # of Medicare beneficiaries, $ spent in prior years, changes in gov't regulations

How is CF determined?

What determines Conversion Factor?

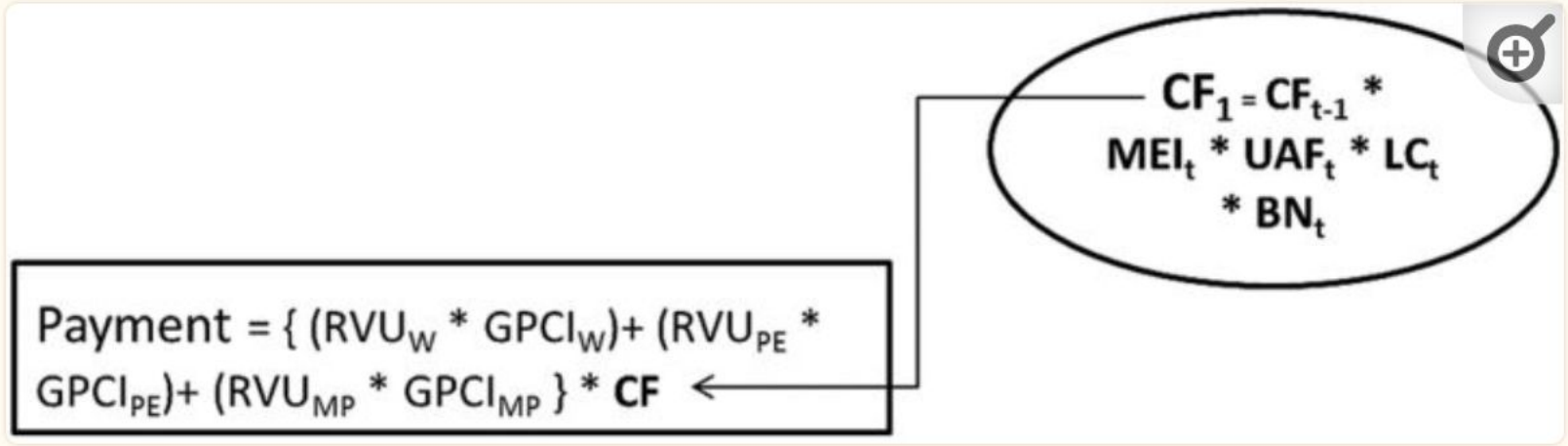
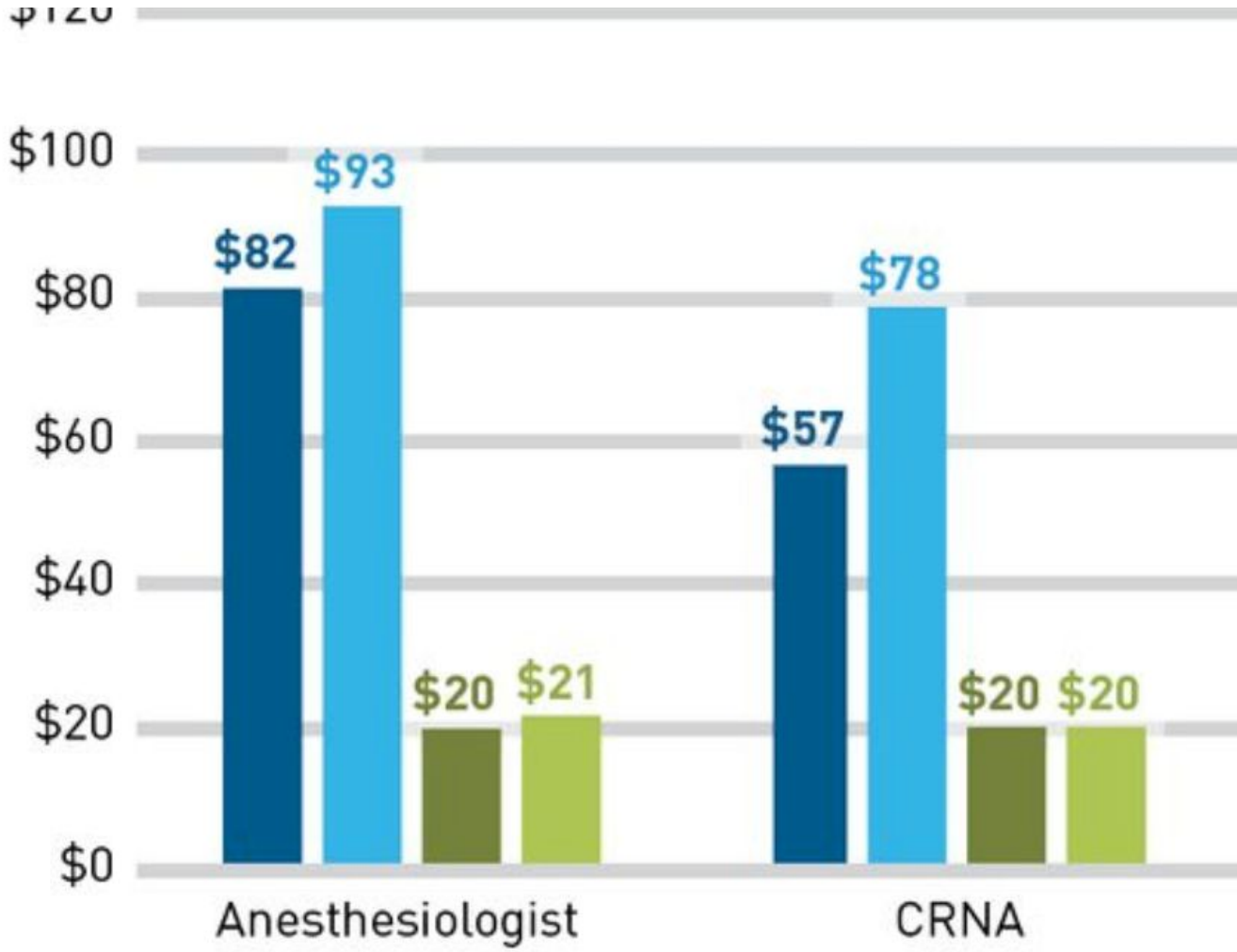


Fig 1.

Role of the conversion factor in the Medicare fee schedule.

EXAMPLES OF CONVERSION FACTORS PRIVATE INSURANCE VS MEDICARE



Laparoscopic Cholecystectomy Medical Direction

Base Units: 7

Time: 94 minutes

Private Insurance: CF $72.55

$964.92

Medicare/Medicaid vs. Commercial Payers

MEDICARE AND MEDICAID CF

NJ: $22.21
NORTHERN NJ: $22.68

DELAWARE: $21.18

PHILADELPHIA: $21.98
REST OF PA: $20.77

MANHATTAN: $23.86

NJ MEDICAID: $17.00

Laparoscopic Cholecystectomy Medical Direction

- Base Units: 7
- Time: 94 minutes
* Medicare: CF $21.12

- $280.90

LAPARASCOPIC CHOLECYSTECTOMY MEDICAL SUPERVISION

Base Units: 7 (assume no MD at induction)

Time: 94 minutes

Private Insurance: CF $72.55

$700.11 $264.81

Laparascopic Cholecystectomy
Medical Supervision

Base Units: 7 (assume no MD at induction)

Time: 94 minutes

Medicare: CF $21.12

$203.81 $77.09

Other Modifiers*	Additional Billed Units
Physical Status P1, P2 or P6	+0 Units
Physical Status P3	+1 Unit
Physical Status P4	+2 Units
Physical Status P5	+3 Units
Age Less than 1 Year or Greater Than 70 Years	+1 Unit
Hypothermia	+5 Units
Hypotension	+5 Units
Emergency	+2 Units

REVENUE COMPARISONS

Table 4. Inpatient Simulations with Average Demand (12 Stations)*

	Yearly Total Revenue	Yearly Total Costs	Revenue Minus Costs
Anesthesiologist alone (4 Per Station Per Day)	6,531,454	4,200,000	2,331,454
CRNA alone (4 Per Station Per Day)	6,531,454	2,040,000	4,491,454
Medical direction 1:1 (4 Per Station Per Day)	7,051,885	6,240,000	811,885
Medical direction 1:2 (4 Per Station Per Day)	7,051,885	4,140,000	2,911,885
Medical direction 1:3 (4 Per Station Per Day)	7,051,885	3,440,000	3,611,885
Medical direction 1:4 (4 Per Station Per Day)	7,051,885	3,090,000	3,961,885
Supervisory 1:6 (4 Per Station Per Day)	5,030,207	2,740,000	2,290,207

Note: *4 per station per day is defined as 4 anesthetics per anesthetizing location per day. Demand four procedures per day, on average, at each station over the course of a year.

Table 5 presents the same results, except on per procedure or per patient basis.

MACRA, QPP,AAPMS AND MIPS

MACRA: Medicare Access and CHIP(Children's Health Insurance Program) Reauthorization Act:

Federal law (2015) that ushered in QPP,AAPMS AND MIPS
Change from fee-for-service to value-based approach to Billing

QPP=Quality Payment Program
AAPMS=Advanced Alternative Payment Models
MIPS=Merit-based Incentive Payment System

MACRA,QPP, APMS AND MIPS

- Two paths to reimbursement under QPP
- AAPM: Advanced Alternate Payment Models (AAPMs)
- MIPS: Merit-based Incentive Payment System

QUALITY PAYMENT PROGRAM (QPP)

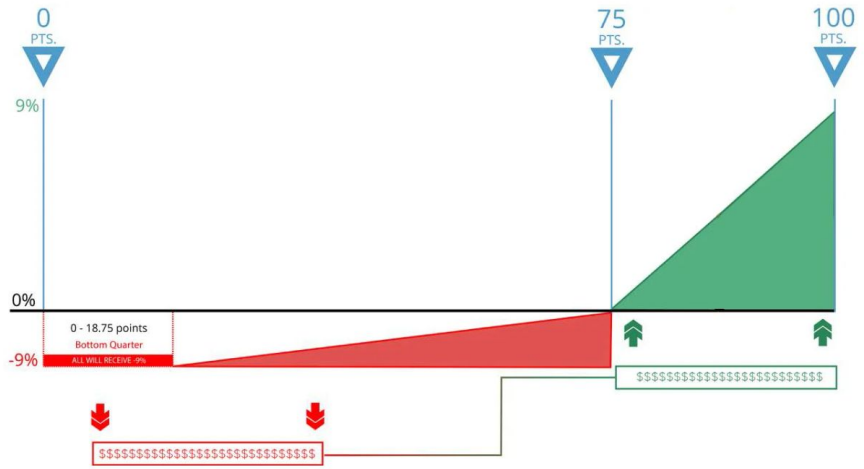
- MIPS: Merit based Incentive Payment System
- Changing fee-for-service to pay-for-value system
- Four scorable categories: (1)Quality, (2)promoting interoperability (EMR) (3) improvement activities and (4) Cost
- Quality: smoking cessation, total joint arthroplasty, temp management
- Must submit for 70% of cases
- Must participate unless first year as Medicare provider (other instances)

MIPS

- SCORED FROM 0-100
- FOUR FACTORS
  - QUALITY (30%) CHOOSE 6 QUALITY METRICS, SUBMIT AT LEAST 70% OF PTS WHO FIT CATEGORIES
  - PROMOTING INTEROPERABILITY (PI) EMR (25%)
  - IMPROVEMENT ACTIVITIES CAN CHOOSE ARE WEIGHTED (15%)
- 4. COST: MEDICARE USES CLAIMS SENT (30%)

To avoid a -9% penalty, you must score at least 75 points.

Reimbursements



0-18.75 Points
If your score is between 0 and 18.75 points in 2021, you will lose -9% from your 2025 Medicare fee schedule (in red above).

18.76-74.99 Points
If your score is between 18.76 and 74.99 points you will receive a reduction to your 2025 Medicare fee schedule between -8.99% and 0%

75 -100 Points
75 points is the performance threshold. CMS will take the funds of those who did not meet the threshold (in red) and distribute them among those who did meet the threshold (in green). Anyone whose MIPS score is between 75 and 100 points will receive some portion of those funds – up to a 9% increase to their 2025 Medicare fee schedule.

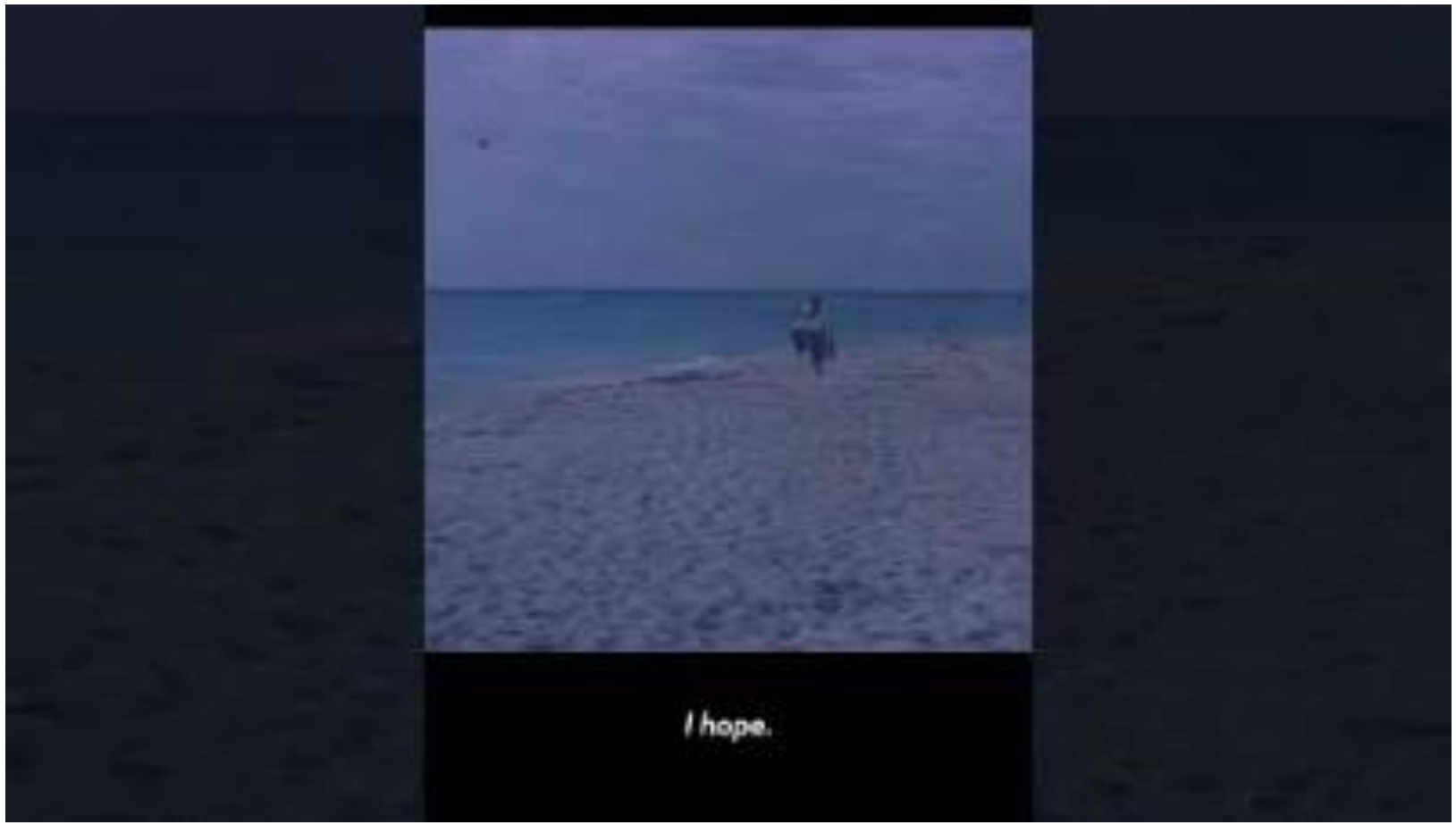
NERVE BLOCKS

- BILL ONLY IF NOT PRIMARY ANESTHETIC
- BLOCK SHOULD BE BILLED SEPARATELY FROM OR TIME
- SURGEON REQUEST MUST BE DOCUMENTED
- LOCATION, TECHNIQUE, MEDS, COMPLICATIONS AND PERFORMING PROVIDER ALL DOCUMENTED

A WORD ABOUT

ANESTHESIA STANDBY: VBAC, TWIN DELIVERY, LOCAL FOR ASA 4-5

MORE THAN ONE PROCEDURE PERFORMED


I hope.

Bibliography

https://www.anesthesiallc.com/publications/anesthesia-provider-news-ealerts/819-anesthesia-group-victorious-in-whistleblower-lawsuit-based-on-reasonable-interpretation-of-emergence
https://www.novitas-solutions.com/webcenter/portal/MedicareJH/pagebyid?contentId=00271306
https://podcasts.apple.com/us/podcast/mark-silberman-jd-former-general-legal-counsel-for-the-aana/id1480774056?i=1000577426931
https://www.lewin.com/content/dam/Lewin/Resources/AANA-CEA-May2016.pdf
https://blog.medisolv.com/articles/mssp-aco-qpp-2023-requirements
https://www.linkedin.com/pulse/so-what-medicare-conversion-factor-kris/

Bibliography

- https://casetext.com/case/united-states-ex-rel-donegan-v-anesthesia-assocs-of-kan-city-pc-2
- https://www.investopedia.com/terms/t/tefra.asp

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7965749/https://www.sciencedirect.com/science/article/pii/S0952818016000076https://barrettlawpllc.com/shocking-allegations-against-vanderbilt-university-about-rampant-medicare-fraud/https://pubmed.ncbi.nlm.nih.gov/27213547/
https://mdinteractive.com/2023_MIPS_Anesthesiology
https://www.eakc.net/2022/09/12/crna-reimbursement-making-a-case-for-parity/
https://pubs.asahq.org/monitor/article-abstract/75/6/36/4781/Billing-for-Anesthesia-Services-and-the-QZ?redirectedFrom=fulltext
https://anesthesiaguidebook.com/tag/billing/
https://www.asahq.org/quality-and-practice-management/managing-your-practice/timely-topics-in-payment-and-practice-management/anesthesia-payment-basics-series-4-physical-status