Neurology Graduate Medical Education: From the Forest to Your Tree

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Goals

- Understand DME, IME, DSH, and other national and state funding sources for GME
- Know oversight functions of the ACGME and its Review Committees, including NRC
- How ACGME and funding affect residency programs at local institutions
- Be familiar with current issues before the national neurology education community
- Flexible Residency-UCSF is one example

A Statement You Will Not Hear

“I became a neurology educator so that I could learn how to manage an educational program budget and understand GME funding!”

Medicare Direct Graduate Medical Education (DME)

A per resident amount paid to hospitals based on 1983 reported GME costs/resident, adjusted for inflation
2.5 billion dollars per year
Covers resident salary and benefits, teaching physician time, overhead, admin costs
State variation—the Moynihan effect

Medicare Indirect Medical Education (IME)

- For higher hospital costs due to presence of residents and greater patient complexity
- Medicare reimbursement is increased by 5.5% for every 0.1 increase in the resident-to-bed ratio
- Hospital with 1 resident / 10 beds receives an additional 5.5% in Medicare payments
- 5.8 billion dollars per year

The Public Funding of GME
The $15 Billion Dollar Pyramid
States and GME Financing

- Varies by state
- No requirement to provide state funding
- Most pay through fee-for-service mechanism
- No GME payments in 3 states (IL, KS, SD)
- 24 states + DC provide DME and IME
- 9 states-no distinction between DME and IME
- All-payer pool in a small number
- Innovative approaches to GME financing?

Disproportionate Share Payments (DSH)

Federal payments to hospitals treating high volume of low-income patients.
Not a GME payment; many teaching hospitals qualify for DSH payments due to location and patients they serve
Many non-teaching hospitals qualify for DSH payments as well.
If share of low-income patients exceeds 15%, you meet the threshold

GME Financing Through the 20th Century

Pre-1940’s
Hospitals pay for trainees (not medical schools)
Costs are modest and passed along to payers
1940 – 1960’s:
# of residency positions increases 6-fold
GI Bill subsidizes qualified candidates
Salaries increase significantly, raising cost of GME

GME Financing-1960s through 1980s

1965-Congress acknowledges the need to support GME through the Medicare program
An “all-payer” system-GME costs are included in “usual and customary charges”
Medicare pays its share and all is well with the world
1982-Birth of IME
Changes in the 1980’s took GME out of the “usual and customary charges” and removed other payers from the financing of GME

GME Financing: The 1990s and Beyond

Early 1990’s DME-Residents beyond “initial residency” (period for first board eligibility or >5yrs) were reimbursed at 0.6 FTE
1996-Disproportionate Share Adjustments introduced, but IME payments reduced
Late 1990s-IME payments frozen; limits to the number of residents covered by Medicare (cap)
Health Care Reform
Given the impending physician shortage, how will we pay the training costs for future MDs?

ACGME: Accreditation Council on Graduate Medical Education

- Responsible for accreditation of post-MD medical training programs within the United States.
- Accreditation is accomplished through a peer review process and is based upon established standards and guidelines.
  - Common Requirements (e.g.-duty hours) set by ACGME
  - Specialty Requirements-29 Review Committees (e.g.-7 months child neurology)
ACGME-Scope of Activity

In academic year 2008-2009, there were 8,734 ACGME-accredited residency programs in 130 specialties and subspecialties. The number of active full-time and part-time residents for academic year 2008-2009 was 109,482.

www.acgme.com—text of all program requirements; other useful information

Constituent Input to the ACGME

AHA Congress AAMC
ABMS Lay Public Exam Boards
AMA Medical Societies

Current Educational ACGME Initiatives

• Portfolio Project Goal 2016-Develop a web-based learning portfolio documenting learning experiences across core competencies
• Milestone Project-The milestones will define the behavioral attributes that are essential to be demonstrated in each competency domain before a resident graduates and at other key points during the resident’s education.
• Specialty milestone groups are being convened to develop milestones and identify assessment tools.

ACGME: What Does the Neurology Review Committee (NRC) Do?

• Council of Review Committee Chairs-29
• Neurology is one Review Committee
• Accredits/Reaccredits ACGME-sponsored neurology and subspecialty neurology residency training programs-385 programs
• Make recommendations regarding how training needs to innovate or adapt to changing circumstances

Neurology Review Committee: Recent/Current Issues

• Appropriate resourcing of training program administration, including program directors
  – 50% turnover every 4 years
  – Admin work an add-on to other work
• Hard wire support for all core/subspecialty program directors and coordinators
• Adult neurology program director salary support-20% + 1% per trainee; began 7/1/10
• Precedent: Ob/Gyn, Psych, Int Med

ACGME: Neurology Review Committee (NRC)-Future Goals

• Encourage flexibility so the programs can adapt to the changing clinical environment
• Optimize implementation of new duty hours and supervision requirements
• Reduce burden of accreditation-incre max time bet program reviews from 5 to 8+ yrs
• Create/implement milestones for neurology
GME in Neurology:
The ACGME Universe is Diverse

- Adult neurology-126 programs
- Neuromuscular medicine-23 programs
- Clinical neurophysiology-91 programs
- Vascular neurology-65 programs

The GME Neurology Education Universe-Other Programs

- Endovascular Surgical Neuroradiology
- Neurodevelopmental Disabilities
- Sleep Medicine
- Pain
- Epilepsy-coming soon

GME and Institutional Priorities

- Clinical Programs essential to core mission-clinical care, teaching, and discovery
- Financial viability
- Will support residencies once the institution is over the Medicare cap
  - Financially anabolic programs
  - Programs essential to core mission

Paying for GME-The Medicare Rules of the Game

- Medicare can audit the presence of residents in clinical activities down to the half-day
- Resident time spent in non-clinical activities will not be paid for by Medicare
- Institution over/under the “Medicare cap?”
- Future: Will Medicare fund some research training and time for trainees?

GME Funding-The Difficult Road to Financial Transparency

- Use of IME funding for clinical programs (“strategic support”) or purely education?
- Transition from clinical program support to resident education?
- How do you avoid hurting valuable clinical programs?

Role of Department Chairs in Clinical and Residency Program Resourcing

- Chair understands clinical and financial expectations of medical center
- Chair can communicate the educational plan, vision, and goals to med ctr leadership
- Chairs are accountable to the hospital CEO
- Works with med ctr admin to develop academic and clinical program business plans, including education/costs of residents
The GME Challenge for Department Chairs

- Departments often have conflicting roles of advocacy for clinical programs and faculty
- Reallocation of funding to the residency from a clinical program that benefits faculty or fellows may hurt departmental clinical programs at some institutions

Structural GME Tension: Public Good, Commodity, or Hybrid

- Med Center expectations for clinical service in return for the educational environment
- Educator and trainee expectations for developing clinical competence, regardless of financing
  - "The Healing of America" T.R. Reid
    - Medical care is the USA is a commodity
    - Medical Care is the USA is a public good

Neurology GME: The Case for a Public Good

- Train competent physicians that can provide value across all neurologic disciplines
- Clinical Service - inpatient vs. outpatient
- Educate medical students
- Encourage innovation-research training, expand the breadth of training to novel environments (e.g.-global health)

Neurology GME: The Case for a Commodity

- Medical institutions are under pressure to make capital improvements and trainees are a valuable labor source, despite some inefficiencies
- Identify win-win programs
  - Clinical activities that contribute to the financial health of the hospital + clinical depts
  - Research + education components that do not interfere with efficiency are a potential bonus

Neurology GME: Reality is a Commodity-Public Good Hybrid

- The development of educational programs must be mindful of the financial implications for departments and hospitals
- Core missions of education and research in clinical settings increasingly need more advocates and resources as pressures mount to contain the cost of clinical care

How the Commodity-Public Good Hybrid Affects Indiv Training Programs

- All GME programs need a line item budget
- "That’s a good idea, let’s do it” era is over
- Financing educational needs will conflict with other institutional priorities
  - Institutional priorities are valid
  - Advocacy for "public good” functions (e.g.- medical students, breadth of training)
Neurology GME Programs: Assessing Income

- Allotted FTEs (full-time equivalents)
  - University, County, VA, State
  - Off-site hospitals and clinics
  - Cost per FTE in salary and benefits
- Other Sources-NIH training grants, philanthropy, private foundations
- GME Support-$/resident/year; varies by institution

Neurology GME Programs: Assessing Expense/Efficiency

- Education division model and efficiency
- Compare line item budget items between GME programs-local or other institutions
- Administrative expense
  - Coordinators' salary vs. time spent
  - Space, supplies, continuing education
- Resident away rotations, research, leave

Neurology GME Programs: More Expenses

- ACGME program fees
- AAN membership/RITE exam fees
- Evaluation Program fees
- Residency matching program fees
- Scheduling program fees
- Visiting Lectures-shared with department?
- Approx salary cost/resident/month-$6,000

Neurology GME: Using a Program Budget to Advocate for More Resources

- Collect proof of the income/expenses in a residency program, then address mismatches between perception and reality
- Prospective budget advantages:
  - data to justify requests for resources
  - rationalize administrative oversight
  - provide useful estimates for the cost of new educational programs or training positions

Neurology GME-Coping With The Forest and The Trees

- Conventional sources of GME funding pay only for the clinical training of residents
- ACGME accredits programs, creates educational oversight policy
- The Neurology Review Committee (NRC) sets educational policy for training programs
- Reality: GME is a public good and commodity
- Follow the money…but don’t lose heart-education is still a core mission

Neurology GME: Encouraging and Supporting Educational Experiences

- Educational programs to promote patient care quality and safety
- Away rotations-unique clinical experiences
- Clinical areas of concentration
- Promote clinical and laboratory research and research training-flexible residency
Flexible Residency- A Platform For Individualized Training of Neurology Residents

Expanded Residency Structure

- Maintain traditional residency training for residents who wish to do so
  - 1 year internship, 3 years residency, 1-2 years of clinical fellowship
- Provide early career differentiation for residents who are ready
  - Clinical or laboratory science research training
  - “Clinical” areas of concentration

The Case for Flexibility of GME

- Manpower needs for clinical neurologists and neurology physician-scientists
- Shortage of neurologists-aging population
- Some residents are ready to differentiate by the R3 year
- Competency is reached at different time points by trainees-individualization of GME

The Long Timeline to Train Physician-Scientists

- The “Fast” Timeline: BA MD Neurology Residency Fellow/Post-Doc R01 Age 22 26 30 32+ 43
- The “Slow” Timeline: BA MD PhD Neurology Residency Fellow/Post-Doc R01 Age 22 30 34 36+ 43

The “Pipeline” Challenge

- Fewer physicians making the effort to enter research careers
- Low NIH funding of grants (around 5%)
- More roadblocks to research career entry
- Creativity and young adulthood-Isaac Newton “discovered” gravity in his 20s!

Roadblocks to Physician-Scientist Research Careers

- Long Training-Mean age to R 01 43 years!
- Edu debt-Mean $150,000+ @ end medical school
- Life cycle issues-income needs, children, home
- Lack of structured pathways to success for clinical science research
- MD/PhD remorse over abandoned skills- “How many times can I start over?”
Residency Program Perspective

- Inflexibility of residency training—even for those who are ready to differentiate
- Increased oversight of GME—the unfunded mandates (e.g.—supervised exams, site visits)
- Medicare pays to train clinical physicians only—not for research training
- Need to provide choices for research career exploration and entry during residency

Resident Perspective—A Confluence of Circumstances

- Typical mid-life transition from residency research career
  - Life cycle issues—time for family decisions
  - Science skills “rusty” after 4-6 years of clinical training; science/research during residency?
  - “So…where does the money come from?”
  - A time of maximum resource insecurity

Goals of the Research Arm of Flexible Residency

- Improve the pipeline of young investigators in clinical science (patient-based research) and laboratory science
- Develop real connections with laboratory and clinical science research during neurology residency—encourage resident engagement!
- Give trainees research experience
- Enable residents to secure research funding by the end of residency

Flex Res—Potential Problems

- Less cohesion? Social groups are formed by the beginning of the R3 year
- Maldistribution of call and other clinical responsibilities? Distribute call over three years; call on weekends for flex res trainees
- Two classes of citizenship? Training already unfolds in a variety of ways
- Training remorse? “We did it, so can they”

Time-Based Neurology Residency—Clinical Training Requirements

- 18 months of clinical adult neurology, including at least 6 months of outpatients
- 1 month psychiatry
- 3 months child neurology
- 3 months vacation
- Reallocate elective time experiences

Flexible Residency—How It Works

- 6 mo research training replaces most electives
- Resident proposes a project assessed by selection committee for feasibility, building research skills, mentorship, research environment
- Acceptance means high probability of success
- Laboratory science director (Dr. Sam Pleasure) and clinical science director (Dr. Clay Johnston) match applicants and research mentors
Is Six Months Enough?

- Residents will find out if their interest in a research career will be durable after residency
- Keep research on the radar screen for residents
  - Good clinical subspecialty career options will attract residents away from research
  - Four years (6 for MD/PhDs) during residency is a long time to sustain research interest with no organized research experiences

Six Months Is Enough!

- Enable grant applications during residency
- Enable stable funding by the time neurology residency is completed
- Residents who had a good experience continue working with their mentor once funded.
- Cost-effective: $35-40,000/trainee/6 month experience

Flexible Neurology Residency-Why Should the Barriers Be Down?

- Regulatory approval by ACGME and local GME
- Lab and clinical science infrastructure must have “critical mass” (e.g.-mentoring, environment)
- Investigators are attracted to train potential future collaborators and junior colleagues
- Clinical service obligations are fulfilled
  - Increased number of residents
  - Research time for flex res not paid by hospital

Flexible Residency-The Present and Future

- 17 institutions with R25 funding from NINDS;
- Reopened call for proposals in fall of 2011
  - offer early research training grants to residents
  - provides salary support only
- Residency programs need to address clinical service obligations and financing research time
- Need multiple sources of funding to accomplish broader goals-possible role for endowment

Flexible Residency-The Clinical Future

- Use more milestone and competency-based training standard to improve efficiency
- Areas of concentration
  - Clinical Neurophysiology-for clinical practice
  - Clinician-educator track-one example
  - International health track-one example
  - Public health track

Flexible Neurology Residency-The Big Picture

- Flexible Residency-organizational platform for training future neurologists
  - Improve pipeline for aspiring neurology resident physician-scientists to pursue research careers and maximize years of creative research
  - Maximize the flexibility and efficiency of residency training by providing areas of concentration tracking as an educational option