Thoughts on the Future Direction of Hospital Medicine

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Lessons and future thoughts from Emergency Medicine

- Do the similarities in origin separated by roughly 30 years predict parallels of growth and development?

Lessons and future thoughts from Emergency Medicine

- Response to a hospital-based clinical need rather than organization based on scholarship
  - Loss of manpower combined with clinical growth –
    - EM – Unattractiveness of Pontiac plan and other models leads to the Alexandria Plan (1961)
    - HM –
      - Academic - PATH audits, residency caps during the explosive growth of faculty practice plans
      - Private practice
        - Inability/unwillingness of private practice/primary care to continue to accept unassigned patients
        - Ambulatory care decreasing attractiveness of continued inpatient care
        - Growing demand of surgical and other procedural specialists for inpatient coverage

Lessons and future thoughts from Emergency Medicine

- Revenue-driven; patient capture
  - EM – Front door to hospital to allow increased capture to fill inpatient beds
  - HM
    - Continued growth of inpatient services in face of obstacles above
    - Need to reduce length of stay in era of prospective payment

- Both generally rely on hospital subsidies depending on location, volume, and payor mix

Lessons and future thoughts from Emergency Medicine

- Explosive growth
  - EM – 48,835 as of 2020
    - ~ 39,000 certified by ABEM or AOBEM

Ann Emerg Med 2020; 76 (6):695-708

  - HM more than 44,037 as of 2019 based on Medicare Part B claims data sets, published August 2022

J Hosp Med 2022 epub before print August 30, 2022

    - “Over 16,000” members of SHM
    - 1,820 ABIM certified in focused practice from 2011-2018

ABIM data

Time-Limited Work

- An early driver in emergency medicine was the ability to have guaranteed and limited hours of work, a sharp departure from the ethos of internal medicine, family medicine, pediatrics, and the surgical specialties

- Most models had strings of shifts followed by strings of days off – 5/5, 7/7 etc.

- As time passed, and single physicians became parents, the realities of child-world Monday-Friday school, evening and weekend sporting and other school activities, drove practitioners into areas with more traditional schedules – administration; urgent care; occupational medicine; toxicology, etc.

Specialty Recognition, Prestige, and Autonomy

- For some time, Emergency Medicine was not considered a true specialty by other specialties
  - "House staff equivalent"
    - Role and function subordinate to other specialists
    - Required permission to admit patients to hospital
  - Not believed to possess unique expertise
  - This perception led to the formation of residencies, professional organizations, journals, and specialty board formation

Creation of a Specialty

- Formation of a professional body
  - ACEP vs. SHM
  - Yet to be seen – Academic group – AAEM and SAEM vs. ? (analogy – ACP vs. SGIM)

- Certifying exam
  - EM
    - ABEM – conjoint board – to a considerable extent because academic medicine and surgery looked down their noses at the specialty, and didn't facilitate training, a la MGH fellowship
    - ABP – post-fellowship pediatric exam
  - HM
    - ABIM – focused practice in hospital medicine MOC in 2010 – explicitly to avoid ABEM and training debacle
      - Low participation – fewer than 1,900 certified after 10 years of availability in 2018
    - ABFP – same time

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Creation of a Future of Scholarship

- Fellowships
  - EM – EMS, Toxicology, Ultrasound, Critical Care, Administrative, Global EM, Sports Medicine, Simulation
  - HM – Less well developed

Fellowships

- Will the practice pathway for ABIM ultimately be supplanted by fellowship training?

- Hospital Medicine fellowships are increasing in number
  - 3 administrative fellowships
  - 37 IM fellowships, many at academic centers
    - Brigham and Womens
    - Hopkins
    - Cleveland Clinic
    - Northwestern
    - Jefferson
    - UCSF
    - UCSD
    - U. Chicago
    - U. Missouri
    - U. Colorado
    - U. Michigan
    - U. Pennsylvania
    - U. Pittsburgh
    - MD Anderson
    - UT San Antonio
    - Vanderbilt
    - U. Washington

Fellowships

- Of the 40 IM fellowship, 27 are in academic centers
  - None accredited
  - Duration – 1 to 3 years
- Associated masters available – 12
- Research grant funded - 6

- Topics of “research”
  - Course work in biostatics and research methods common
  - Patient safety
  - Performance improvement
  - Quality improvement
  - Outcomes
  - Lean Six Sigma
  - Equity
  - Value
  - Ultrasound
  - Medical education

Fellowships

- Opportunities seem likely in
  - Critical care
  - Information technology
  - Clinical investigation
  - Clinical effectiveness

- In contrast to EM, well-structured and funded training programs in IT, clinical investigation, quality and patient safety, ultrasound, and medical education already exist in many academic centers, often in the parent departments of medicine

- Given the clinical requirements (0.1-1.0 FTE), lower fellowship pay, and fellowship duration, with the resultant opportunity costs, HM fellowships to obtain research training become somewhat less compelling

Fellowships

- Pediatric Fellowships
  - 26 fellowships, with spread of academic vs. non-academic similar to internal medicine
  - The ACGME started to process and accredit PHM training programs in January 2020.
  - Starting in July 2022, individuals who start PHM fellowship as a first-year fellow must enter an ACGME-accredited PHM training program or RCPSC-accredited PHM training program in Canada.
  - In addition, scholarly activity, as defined in the ABP's General Criteria for Certification in the Pediatric Subspecialties, will be required for all individuals who commence training on or after July 1, 2022.

Scholarship and Its Funding

- EM - Research funding slow to grow and low in comparison to established specialties
  - Specialty did not grow from scholarship, as did traditional internal medicine specialties
  - Few specialty-specific domains
    - EM – toxicology, EMS, resuscitation (partly); no clearly defined exclusive basic science
    - HM – quality, informatics, value of care, transitions of care, technology assessment
  - Few or no established funding agencies or streams (no dedicated institute nor foundations)
    - Recent establishment at NIH of

Office of Emergency Care Research

Scholarship and Its Funding

- Total EM Departments Receiving NIH Support – 39
  - Top 10 (2021)

From the BLUE RIDGE INSTITUTE for MEDICAL RESEARCH as compiled by Robert Roskoski Jr. and Tristram G. Parslow		BRIMR.ORG
Rank	Name	Emergency Medicine
1	YALE UNIVERSITY	$18,174,130
2	UNIVERSITY OF MICHIGAN	$11,274,311
3	UNIVERSITY OF PENNSYLVANIA	$8,390,779
4	WASHINGTON UNIVERSITY ST LOUIS	$7,270,557
5	COLUMBIA UNIVERSITY HEALTH SCIENCES	$5,265,448
6	OREGON HEALTH & SCIENCE UNIVERSITY	$4,291,682
7	WAYNE STATE UNIVERSITY	$4,269,922
8	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	$4,089,063
9	UNIVERSITY OF COLORADO DENVER	$3,779,066
10	ICAHN SCHOOL OF MEDICINE MOUNT SINAI	$3,778,039

39 totaling $100,991,882 with mean of $2,589,535

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Scholarship and Its Funding

- Total Hospital Medicine Divisions Receiving NIH Support – Data not Available
- Internal Medicine Departments - Total Receiving NIH Support - 116

GRAND TOTAL	**$5,328,464,759**
MEAN	$45,935,041

Top 15 Internal Medicine Departments

From the BLUE RIDGE INSTITUTE for MEDICAL RESEARCH as compiled by Robert Roskoski Jr. and Tristram G. Parslow		BRIMR.ORG
Rank	Name	Internal Medicine
1	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	$578,690,835
2	UNIVERSITY OF CALIFORNIA LOS ANGELES	$239,708,951
3	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	$234,518,732
4	VANDERBILT UNIVERSITY	$192,415,235
5	JOHNS HOPKINS UNIVERSITY	$184,561,979
6	DUKE UNIVERSITY	$174,981,194
7	COLUMBIA UNIVERSITY HEALTH SCIENCES	$170,729,013
8	UNIVERSITY OF PITTSBURGH	$155,152,447
9	UNIVERSITY OF CALIFORNIA SAN DIEGO	$145,017,480
10	YALE UNIVERSITY	$141,038,873
11	UNIVERSITY OF PENNSYLVANIA	$137,492,998
12	EMORY UNIVERSITY	$126,291,696
13	ICAHN SCHOOL OF MEDICINE MOUNT SINAI	$124,810,300
14	WASHINGTON UNIVERSITY ST LOUIS	$121,384,528
15	NORTHWESTERN UNIVERSITY CHICAGO	$109,788,704

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Limitations on Research Analogies

- Resources available to IM-based Hospital Medicine Divisions, all making independent development less necessary and desirable
  - Large and sophisticated existing research divisions
  - Extensive expertise in grantsmanship throughout department
  - Funding mechanisms generally unavailable to EM
    - AHRQ
    - VA HSR&D
    - Clinical research centers/CTSI
  - Available training mechanisms
    - KL2 awards supporting clinical research training
    - Fellowships in informatics, quality, etc.

Knowledge Dissemination

- EM – 1970's – One Journal – JACEP
  - Now – more than 90 "emergency" journals internationally; more than 10"true" EM journals, including

    - Annals of Emergency Medicine (ACEP)
    - Academic Emergency Medicine(SAEM)
    - AEM Education and Training (SAEM)
    - Journal of Emergency Medicine (AAEM)
    - American Journal of Emergency Medicine (free-standing – J. Douglas White)
    - Western Journal of Emergency Medicine (California ACEP/UC Irvine – open access)
    - Emergency Radiology (American Society of Emergency Radiology)
    - Pediatric Emergency Care (Ludwig/Fleisher)
    - Journal of Emergency Management (US – largely pre-hospital)
    - Emergency Medicine Journal (international – Royal College EM/BMJ)

Knowledge Dissemination

- HM – 2006 – Present
  - One Journal – Journal of Hospital Medicine
    - Will the number of HM journals grow?

      - My own prediction is not –
        - Multiple other existing journals covering domains of interest and importance to Hospital Medicine
        - Caveat – If one or more additional professional societies arise

The Structure of Practice

- Mega-groups and exploitation – only the people at the top get rich
  - EM
    - EmCare (Leonard Riggs) – 25,000 clinicians, 15% of all ED patients
      - Goes public as Envision – Sold ambulance unit for $2.4 billion and remainder for $9.9 billion
    - Fischer –Mangold
      - One of earliest multi-state EM staffing companies
      - Now owned TeamHealth which is owned by the Blackstone Group, which also owns multiple other large groups

The Structure of Practice

- Mega-groups and exploitation – only the people at the top get rich
  - HM
    - IPC – 1900 facilities over 28 states
      - Settled false claims lawsuit $60 million
      - 2015 sold to TeamHealth ($1.6 billion)
    - Sound Physicians – 3900 employees
      - Investigated and paid $14.5 million to settle overbilling charges
      - 2013 Sold to Fresenius ($600 million) which is sold to Optum Health/Summit Partners ($2.15 billion) in 2019

Important Pending Questions

- What will academic hospital medicine look like over the next two decades?
- What will private practice hospital medicine look like over the next two decades?
  - Will the current model continue to be viable for the aging physician parent?
  - Will burnout become an issue?
  - Will the specialty continue to be egalitarian or will megagroups come to dominate?
- Will HM follow a path towards academic recognition and respectability similar to EM, or will it be different?

Important Pending Questions

- Will practicing hospitalists develop (continue to develop) areas of expertise they will come to dominate?
  - IT
  - Quality
  - High-value care
  - Health-care administration
  - Efficiency of care
  - Transitions of care
- Who will take care of the outpatient?
- Where are the opportunities for you???