Big data, rising costs, and clinician burnout:

How academic detailing can help

(plus some warnings about Washington, D.C.)

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Conflicts of Interest

- The majority of our Division's funding comes from NIH, AHRQ, PCORI, and FDA.
- Neither I nor anyone in my division accepts personal compensation from any pharmaceutical manufacturers.
- The Division sometimes accepts support for specific studies from drug companies through unrestricted research grants to the Brigham and Women's Hospital.
- I do not receive any payment for any of my academic detailing work, including that done through the non-profit Alosa Health.

‘Big data’

- Virtually all clinical encounters are now captured electronically
  - with more detail included all the time
    - Avorn J. The future of doctoring: Information technology and health care delivery. *The Atlantic Monthly*, 1974.

- Enormous promise for this data to improve quality
  - dosing (also re: age, renal function)
    - ‘Nephros,’ ‘Gerios’
  - drug-drug interaction
  - cost-effective choices
  - feedback about outcomes
  - warnings about side effects

But… some limits of big data

- Execution is often flawed
  - zany or silly warnings
    - digoxin and furosemide
  - 'alert fatigue'
    - Getting around annoyances
      - "Because I'm a doctor…"
      - the space bar
  - 1,001 formularies
- **Google** flu predictions
- Pharmaco-epi examples
- 'Learning from experience' with huge N of inputs
  - **IBM's** Watson reads the Urban Dictionary
  - **Microsoft's** chatbot Tay
    - "The more humans share with me, the more I learn"

What is missing?

- Epidemiology 101
  - *vs.* GIGO
- Understanding that some patients don't fit algorithm
- Human interface re transmitting recommendations

- **What academic detailing can offer:**
  - An ***understanding by prescribers*** of where the recommendations come from, and how they fit into practice
  - More ***nuanced information*** about exceptions, modifications
  - ***Opportunities to discuss*** skepticism, barriers, enablers

Drug costs are back

- 'Pharmageddon' 2010-2012: the problem that seemed to go away

- Dramatic new increases 2015-2016 put drug costs back on the front burner
  - Now people are listening again
    Kesselheim, Sarpatwari, Avorn – JAMA 2016

- ***Pharmacy costs are still the smaller piece of the problem***
  - ***It's far more about the human and economic costs of the clinical outcomes***
    - of poor choices, overuse, misuse, ***and underuse***.
    - e.g., stroke, MI, bleed, falls, hip fracture, etc.

Academic detailing and costs

- 'Prescribe more cheaply!' is not a clinician's favorite message and often does not work
- Formulary restriction can only go so far
  - *e.g., PPIs*
- Academic detailing can link cost-effective prescribing to patient needs:
  - It can let prescribers know what specific meds cost
  - High out-of-pocket expenses → less adherence → worse clinical outcomes
- Helping practitioners use drugs more wisely also will reduce the risk of costly adverse clinical events
  - …and their huge costs

Dreischulte, NEJM 2016

Clinician burnout

- **Role deterioration for primary-care clinicians from 1970s to the present:**
  - from quarterback to captain to gatekeeper to switchboard operator to doormat
  - Economic pressures of procedure-based reimbursement helped drive this
  - Burnout is common
  - →person power shortfall on the front lines
    - [Will dismantling Obamacare reduce some need for PCPs?]
- **Academic detailing can help**
  - Treating clinicians more like people with 23+ years of education rather than robots
  - Interactive outreach visits: 'Best part of the day'

Other mega-trends impacting primary care

- Whatever happens to Obamacare, pressures are growing to encourage integrated delivery systems
  - Employers, patients can't tolerate current costs
  - The other 82% of the GDP is getting restive
- Global, capitated, PCP-centered care is most powerful way to contain cost increases
- Drug costs and costs of suboptimal care are attracting more attention
  - Medicare 'stars,' HEDIS measures, etc.
  - You can't fix this all with order-entry alerts and prior approval requirements

Worrisome developments in Washington that pre-dated Donald Trump

...and will have major implications for academic detailing

The "21st Century Cures" Act

- Lowers standards for drug approval
- Sailed through House last year
- May be taken up by Senate in coming weeks
  - Surrogate markers can be used more to approve drugs
    - *Avorn & Kesselheim, 21st Century Cures Act, NEJM 2015*
    - *Kesselheim & Avorn, new drug for muscular dystrophy, JAMA 2016*
- **Result:** FDA approval will be less tightly linked to clinical outcome benefit
  - → much greater need for independent assessment and educational outreach

"Commercial free speech" rights

- For several years, industry-backed litigation has challenged FDA's right to limit off-label promotion
  - similar arguments about re-statement of risks
- Based on concept of protecting companies' commercial free speech under the 1st Amendment
  - *FDA conference of Nov. 9-10, 2016*
- Several worrisome precedents
  - Caronia (Jazz pharmaceuticals) – not appealed by FDA
  - Amarin fish-oil case – FDA backed down
- Current (and future) Supreme Court likely to affirm decisions reducing FDA's control over promotion
  - *Kesselheim, Mello, Avorn, JAMA 2013*
  - *Avorn, Sarpatwari, Kesselheim, NEJM 2015*

Implications for academic detailing

- If FDA authority over approval and promotional claims is eroded, prescribers' need for rigorous, non-commercial information will increase sharply.
- This cannot be addressed adequately by formulary restriction, co-pay shifts, order-entry prompts, or dull lectures in darkened rooms.
- Academic detailing can help, and will be needed more than ever in this brave new world…

For more information:

BWH Division of Pharmaco-Epi (DoPE):

www.DrugEpi.org

J. Avorn, ***"Powerful Medicines: the Benefits, Risks, and Costs of Prescription Drugs"***

www.PowerfulMedicines.org

www.NaRCAD.org