

DEFENSIVE MEDICINE, SOME THOUGHTS



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No conflicts of interest

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Defensive Medicine:- a definition

- Performing investigations or procedures which are not clinically indicated, in response to a fear of litigation

emotion (fear or anxiety)

perception of risk

belief will reduce risk



Defensive Medicine?

“There is no such thing as defensive medicine, only good (or bad) medicine”



What is wrong with being defensive?

- Cost
- Time
- Ineffective or unnecessary treatment
- Risk ***

I will use examples from oncology, elective and emergency general surgery and suggest possible remedies



Risks

- Radiation exposure
- Procedure related morbidity
- Anxiety and depression
- Early side effects
- Late side effects



Possible cancer diagnosis

- Liberal use of CT, often whole body scans
- Use of tumour markers as diagnostic tests
- Overly frequent colonoscopy
- Repeated occult blood testing after normal colonoscopy
- Frequent PSA testing

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Multi Disciplinary Meetings

- Paralysis of individual decision making
- Default to more
pathology, imaging, surgery, radiation, chemotherapy, referrals, genetic testing
- Less
palliation only, concern for costs, wait & see, holistic medicine, respect for patient's wishes
- Most evidence was obtained by trials which excluded those over 70 or with co-morbidities
- Driven by fear of missing faint chance of cure
Who is responsible? Can I be sued?

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Cancer Follow Up

- Repeated CT and pathology tests
- Guidelines often based on weak evidence
- Unrealistic goals
 - most recurrences are incurable
 - early detection may not help

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Risk of cancer with CT

- Population linked cohort study of Australian patients aged 0-19 between 1985 and 2005, using Medicare and cancer registry data
- 24% increase in cancer (many types)
- 608 excess cancers
- Risk correlated with number of scans
- Approx. 1/10,000 scans
- Many cancers may not yet have occurred

Matthews et al
BMJ 2013; 346

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Incidentalomas on CT scans

- Liver cysts 20%
- Renal cysts 40%
- Adrenal tumours 3-10%
- Pulmonary nodules 15%

The vast majority of these are benign, however nearly all references recommend further investigation or repeated follow up. Most of this is driven by defensive medicine, rather than evidence of patient benefit.



Effects of incidentalomas

- More imaging and radiation exposure
- Repeated imaging over time
- Detection of even more incidentalomas
- Percutaneous biopsy
- Surgery
- Patient anxiety, often unrecognized and untreated
- Occasional benefit



Defensive Emergency Surgery

- **Appendicitis**
increasing rates of CT
high rates of laparoscopy
but many patients can be managed conservatively
- **Use of stomas**
No one is criticized for an unnecessary stoma, but expert witnesses will often use hindsight to recommend one if an anastomosis has failed



Elective surgery

- Hernia ultrasound
- Routine laryngoscopy prior to thyroidectomy
- Histology of vas deferens



Why is this happening? Doctors are:-

- Well motivated (usually)
- Taught to be thorough
- Trying and do “the best” for each patient
- Less concerned about cost
- Optimistic about the good they do
- Removed from the harm they cause
- Not taught decision making theory

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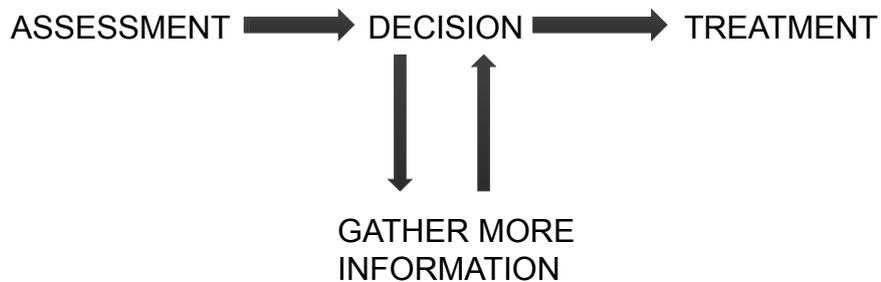
Decision Making

- Doctors often report that they are anxious when the diagnosis is uncertain
- Yet clinical medicine is “The art of drawing correct conclusions from inadequate data and being right most of the time”
- Defensive medicine is driven by anxiety
 - looking foolish
 - being blamed by patient
 - KPIs
 - litigation

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DECISION MAKING ALGORITHM



DEFENSIVE MEDICINE

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Remedies- CRP testing

- C Reactive Protein is an “acute phase reactant”, i.e. the level rises in a large range of inflammatory conditions
- The levels slowly rise and fall, often 2-3 days after the clinical events
- It can be helpful in managing a range of chronic inflammatory disorders
- It is widely measured in emergency medicine, despite multiple studies showing lack of utility
- Local and on line pathways & guidelines, none of which suggested CRP, had helped.

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CRP Nepean Hospital

- All doctors ordering CRP in ED required to place gold coin in jar for donation to Children's Medical Research Institute
- Pre intervention ordering rate 25%
- Post intervention 7%
 - relative reduction 72%
 - absolute reduction 18%
- Little money was raised

Mallows MJA 2013; 199 (11); 813-814

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Qualitative information

- Medical students had not been taught to order CRP
- Senior medical staff did not regard CRP as important.
- Main group "championing" CRP were registrars and junior doctors.
(Like a virus in an endemic host population)
- Junior staff needed "*permission*" not to order CRP, then happy not to

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Why did the intervention work?

- Education program
- Local guidelines
- Clear, united view from senior staff
- The gold coin focused attention and discussion
- Doctors were given “*permission*” not to practice defensively

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How can we give “permission”

- Public education
- Improved guidelines
- ?Financial penalties
- Improved expert witness reports
- United professional opinion
- Role model good behaviour

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Conclusions

- “Defensive” medicine costs money, takes time, and creates risk
- Good medical practice should not be construed as being defensive
- Unwinding established practices requires unified professional opinion
a culture of *“permission”*
good role modeling

