Multimorbidity, polypharmacy and the Quality and Outcomes Framework

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Outline

- Potentially inappropriate prescribing in the context of multimorbidity and polypharmacy
- How should health services response respond?
  - Focus on high-risk prescribing
  - Focus on high-risk patients
  - Focus on high-risk practices or prescribers
  - The example of the UK Quality and Outcomes Framework (disclaimer)

High-risk prescribing

- Prescribing is a high benefit, high risk, high cost activity
- 6.5% of hospital admissions are related to ADEs
  - ADE directly leading to admission in 80%, half preventable
- Mostly due to 'appropriate' drugs that guidelines tell us to prescribe more of
  - Warfarin, aspirin, (non-steroidal anti-inflammatory drugs), ACEI/ARB and other renal toxic drugs, hypoglycaemic drugs, blood pressure lowering drugs
- High-risk or potentially inappropriate prescribing is not a never event, but needs regular review
  - The correct level is NOT zero

Response 1: focus on PIP

- PIP is common, so an obvious response is to aim to reduce it
- Interventions to reduce specific prescribing
- PINCER, DQIP, EFIPPS all take this approach
- Rational, sensible, potentially productive
  - Only covers a limited range of (important) measures
  - Prescribing is more complex than this

The context of multimorbidity and polypharmacy

No. of Conditions

0
1
2
3
4
5
6
7
8+

Patients (%)

100
90
80
70
60
50
40
30
20
10
0

Zero conditions
1 condition
2
3
4
5
6
7
8+

0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70-74
75-79
80-84
85+

Age Group (years)

Barnett K et al. The Lancet 2012; 380: 37-43.

High risk prescribing and polypharmacy

No. of chronic drugs	% getting a high risk prescription	Adjusted OR
0 drugs	4.3	1
1-2 drugs	11.0	2.7
3-4 drugs	12.7	3.2
5-6 drugs	14.5	3.8
7-8 drugs	18.3	5.0
9-10 drugs	21.5	6.1
11+ drugs	26.6	7.9

Guthrie B et al. BMJ 2011;342:d3514

Safer but more people at risk…

- People on warfarin prescribed NSAIDs, anti-platelets, high-risk antibiotics, oral azole antifungals
- 16.0% in 1995 (258/1611)
- 10.7% in 2010 (538/5006)
- 'Safer' but more people are at risk…

Response 2: focus on high-risk patients

- Multimorbid, frail people with polypharmacy are at much higher risk of harm
- Interventions to improve prescribing in those at highest risk
  - PIP is an element of this, but other elements important
- Various pharmacist led interventions, increasing amounts of UK NHS activity
  - Eg NHS Scotland polypharmacy guidance
    http://www.central.knowledge.scot.nhs.uk/upload/Polypharmacy%20full%20guidance%20v2.pdf

High-risk practices?

Guthrie B et al. BMJ 2011;342:d3514

Response 3: focus on high risk practices

- Some practices are much riskier than others, so a governance issue
  - Don’t know what a ‘safe’ level is
  - Don’t know if this is a ‘bad apple’ or a ‘spoiled barrel’ problem
- Inevitable that more routinely measuring prescribing safety will create situations where goverance or regulatory action is needed
  - Be ready for it

The example of QOF

- Disclaimer…
- QOF is *quality* focused but various indicators impact on prescribing in three ways
  - AF04: % of patients with AF and CHADS2 score >1 currently treated with anti-coagulation therapy **£22/pt**
  - DM07: % of patients with diabetes with last HBA1c ≤59 mmol/l **£22/pt**
  - MM03: A medication review in preceding 12 months for all patients being prescribed 4 or more repeat medicines **£1/pt** Withdrawn inEngland

Can QOF do prescribing safety?

- We don’t know what the right level of PIP is, so we can’t pay for zero PIP
- Reluctance to pay for “review only” indicators, but sometimes need professional judgement
- Old medicines review indicator unfocused
  - Focus on 10 or more drugs? On the NICE agenda…
  - NHS Scotland introduced anticipatory care domain and SPSP-PC has workstreams on warfarin & DMARDS
- Can’t replace local, facilitative activity

Summary

- Several possible responses to PIP
  - Focus on high-risk indicators
  - Focus on high-risk patients
  - Focus on high-risk practices or prescribers
- Best response probably multiple interventions, but what best to do first will vary by context
  - High-risk indicators easiest
  - High-risk patients attractive but difficult
  - High-risk practices or prescribers has to be planned for

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