Important New Evidence Service

In Partnership with The Centre for Medicines Optimisation at Keele University

ScriptSwitch™ Rapid Update 3 – November 2017

Clinical benefits of medicines optimisation by geriatricians in primary care

A pilot project has demonstrated that comprehensive geriatric assessments (CGAs) by secondary care geriatricians, of older patients with complex healthcare needs based within primary care, are feasible, well-received and result in an average of 4 medication changes per patient. This builds on the evidence suggesting that interventions by pharmacists can also help optimise medicines use.

Reference: Lea SC, Watts KL, Davis NA et al. The potential clinical benefits of medicines optimisation through comprehensive geriatric assessment, carried out by secondary care geriatricians, in a general practice care setting in North Staffordshire, UK: a feasibility study. BMJ Open 2017; 7: e015278

What do we know already?
- There has been an increasing request for a range of services traditionally provided within the secondary care setting to be moved into the community.
- A NICE Guideline (NG56) on the management of multi-morbidity includes recommendations for identifying people with multi-morbidity who may benefit from a "tailored approach to care" proactively, using electronic health records, performing CGAs and reducing the pharmacological treatment burden.

What does this evidence add?
- This study found that constructive collaboration between GPs and secondary care geriatricians within the primary care setting is possible. Similar collaborations are supported, to allow further studies, including randomised controlled trials (RCTs), in the future.
- Medicines optimisation within a CGA most often resulted in the decreasing of doses, or the stopping of medicines. However, in some cases there was a need to increase doses, or start new medicines.
- Following the CGA, there was an increase in the use of emergency/unplanned healthcare interactions in the first 6- month period. This continued the trend seen on the 12-month period pre-CGA. However, this trend levelled out for the 6 to 12-month period post-CGA.
- A major limitation of this study was the absence of an independent control patient group to compare the effect of the CGA. Instead, the patients acted as their own controls, pre-CGA and post-CGA. The indicated benefits of CGAs need to be investigated further in a RCT to confirm whether they are specifically related to the provision of a CGA.
- This study assessed the feasibility of service design in one area of Stoke-on-Trent. Not all surrounding areas, or areas further afield, may have similar access to secondary care geriatricians. Pharmacists have previously shown expertise in being able to make interventions to ensure the appropriate use of medicines (Avery *et al.*, 2012). The increasing role of pharmacists in GP practices may offer the opportunity for them to utilise some of the interventions presented in this paper.

Study details

Participants:

- Eligible patients were frail men and women with long-term conditions living in the community, aged at least 65 years old and prescribed eight or more medicines per day.
- Excluded patients were any that had been under the care of a geriatrician or psychogeriatrician in the previous 6 months. Temporary GP practice patients were also excluded.
- Three geriatricians undertook assessments on 186 patients, 110 of whom were women and 76 were men. The median age range was 81 years (range 65-99), with the female patients being significantly older than the male patients (median ages were 78 years for men and 82 for women). The authors point out that these ages are not very high, and were lower than the age ranges of some previous studies.
- Of the patients assessed 75% lived at home with the remaining ones living in a residential or nursing home.

Intervention and comparison:

- Seventeen general practices in a region of Stoke-on-Trent were invited to participate; 7 of which took part.
- The patient population was over 5,000 patients. GPs selected patients for the study by searching computer records to identify appropriate patients.
- The community consultant geriatrician assessed 66% of the patients, with two registrars assessing 18% and 16% of patients respectively.
- There was an allocation of one hour per patient for the CGA to be undertaken. The assessment comprised of a full history, thorough clinical examination, balance and mobility assessment, mental function and information on home environment and support arrangements.
- Recommendations were entered onto a standard template and a comprehensive report sent to each patient's GP. At the end of each day the geriatricians met with relevant GPs to discuss the patients assessed.
- GPs were to implement the recommendations at their discretion and monitor subsequent progress. There was no follow-up by the geriatricians.
- The study compared planned healthcare utilisation and emergency/unplanned utilisation for 6 and 12 months pre-CGA and post-CGA. Comparisons of counts before and after the intervention were analysed using conditional negative binomial regression.

Outcomes and results:

- A total of 687 recommendations for changes to medication regimens were made for 169 patients. For the remaining patients, no recommendations were made.
- Overall there was an average of four medication changes per patient.
- The most common recommendations were to stop a medicine (34%) or to decrease a medicine dose (24%).
- A recommendation to increase a medicine dose or start a medicine represented 8% and 18% respectively of all recommendations.
- The final 13% of recommendations were to change a medication to a more appropriate alternative.
- In seven patients, a 'Do Not Attempt Resuscitation' consideration was recommended.
- The rates for adherence to the recommendations still in place at 6 and 12 months were 72% and 65% respectively.
- In the 6 months following the CGA, the usage of healthcare services increased by 37%. This increase reduced to 33% thereafter.
- For planned admissions, the incidence rate ratio (IRR) was 1.23, 95% confidence interval (CI) 1.07 to 1.41. This entailed a 23% increase after the intervention. For unplanned admissions, the IRR was 1.83 (95% CI 1.43 to 2.34) and entailed an 83% increase.
- The geriatricians undertook a holistic patient assessment, which also included recommendations for extra investigations, assessments and interventions. Therefore, the increase in planned healthcare utilisation may be explained by this.
- GPs involved in the study reported that they found the intervention by the geriatricians both constructive and popular with patients. No unfavourable comments were reported.

Level of evidence:
Level 2 (limited quality patient-oriented evidence) according to the SORT criteria.

Study funding:
Stoke-on-Trent Clinical Commissioning Group.