Comprehensive Geriatric Assessment: the feasibility of a strategy for specialist review of older people in their own home

A small, prospective UK pilot study assessed the feasibility of a one-off comprehensive geriatric assessment in older people in primary care by a secondary care geriatrician. The assessment included a review of medication regimen and resulted in interventions to 91% of participants’ medication regimens. The authors concluded that such an assessment is feasible and showed constructive collaboration between GPs and geriatricians from secondary care. Prioritising structured medication reviews in specific groups of people, such as older people and/or those taking multiple medicines is in line with the NICE guidelines on medicines optimisation and multimorbidity. However, randomised controlled trials are needed to determine whether this specific approach results in improved clinical outcomes.

Overview and current advice

Improvements in healthcare and lifestyle have resulted in an increase in the life expectancy of the UK’s population, with the Office for National Statistics (2017) estimating that currently 18% of the UK population is aged 65 and over. This figure is expected to increase to approximately 25% by the year 2046. These demographic changes inevitably pose significant challenges to our health and social care system.

The Health Survey for England (2016) found that prescribed medicine use increases with age; the percentage of people taking at least 1 medicine was 19% of young people aged 16 to 24 compared with more than 90% of those aged 75 and over. The King’s Fund describes problematic polypharmacy as ‘the prescribing of multiple medications inappropriately, or where the intended benefit of the medication is not realised’. This increases the risk of drug interactions and adverse drug reactions while impairing adherence to medication and quality of life.

The NICE guideline on medicines optimisation defines this as ‘a person-centred approach to safe and effective medicines use, to ensure people obtain the best possible outcomes from their medicines’. The guideline addresses the issue of problematic polypharmacy and recommends that specific groups of people including adults, children and young people taking multiple medicines, those with chronic or long-term conditions, and older people have access to a full, structured medication review. The guideline defines medication review as ‘a structured, critical examination of a person’s medicines to reach an agreement about treatment to optimise the impact of medicines, minimise the number of medication-related problems and reduce waste’. Furthermore, NICE advises organisations to ensure
that medicines reconciliation is carried out by a trained and competent health professional with the necessary knowledge, skills and expertise. Medicines reconciliation is the process of identifying an accurate list of a person's current medicines and comparing them with the current list in use, recognising any discrepancies, and documenting any changes, resulting in a complete list of medicines, accurately communicated.

There are various tools and resources available to support clinicians optimise medication regimens and avoid problematic polypharmacy. The Stopp Start Toolkit is a twofold screening tool to assess older people's potentially inappropriate prescriptions and also alert prescribers to appropriate, indicated treatments.

The NICE guideline on multimorbidity recommends optimising care for adults with multiple long-term conditions by reducing treatment burden (polypharmacy and multiple appointments) and unplanned care. People prescribed multiple regular medicines (10 to 14 or less than 10 for those at particular risk of adverse events) are those who should be prioritised for an intervention that takes into account multimorbidity, including reviewing medicines. The NICE interactive flowcharts on medicines optimisation and multimorbidity bring together all related NICE guidance and associated products on these topics.

New evidence
A small, prospective UK pilot study (Lea et al. 2017) evaluated the feasibility of a one-off clinical comprehensive geriatric assessment of older people in primary care by secondary care geriatricians. Comprehensive geriatric assessment was defined in the study as ‘a multidimensional interdisciplinary diagnostic process focused on determining a frail elderly person’s medical, psychological and functional capability in order to develop a coordinated and integrated plan for treatment and long-term follow-up’.

The aim was to determine whether such a service redesign was feasible; to gain insight into any potential clinical benefits of medicine optimisation; and to find out whether data collection and analysis was possible with a view to informing any future randomised controlled trial (RCT). Participants were allocated 1 hour with a geriatrician for an assessment which included a full medical history, thorough clinical examination, assessment of balance, mobility and mental function, information on home environment and support arrangements and recent laboratory tests. The geriatricians met with the participant's GPs at the end of each day of assessments for 1 to 1.5 hours to discuss their recommendations, including any for further assessment, investigations or medication changes. It was then the GPs’ responsibility to implement the recommendations and monitor progress. The geriatricians did not see the study participants again after assessment. However, the geriatricians were available throughout the study for advice by phone or email at the GPs’ discretion.

Using practice computer systems from 7 of 17 invited GP surgeries in Stoke-on-Trent that agreed to take part, participants were selected, if they were aged 65 years or over and were taking 8 or more medicines daily. Some participants taking less than eight medicines daily were also included if their GPs felt it would enhance their wellbeing and quality of life, such as those with long-term conditions or those at high risk of hospital admission. GPs also gave priority to people whom they felt had the greatest needs and would benefit most. People were excluded if they had been under the care of a geriatrician or psychogeriatrician in the previous 6 months. A quarter of included participants lived in residential care or a nursing home.

During 2014, 76 men (median age 78) and 110 women (median age 82) were assessed by 1 of 3 geriatricians (a consultant or 1 of 2 registrars). A total of 687 medication regimen changes were recommended for 91% of people assessed, averaging 4 interventions per person. The most common interventions involved stopping medicines (34% of medication changes) or decreasing dosages (27%
of medication changes). Other interventions involved increasing doses (8%), changing to an alternative medication (13%) or starting a new medication (18%).

Follow-up data were only available for 154 participants and showed that 72% and 65% of the CGA recommendations remained in place 6 and 12 months after the study respectively. The authors did not indicate whether there were clinically justifiable reasons for non-adherence to the recommendations of the CGA in these cases.

The authors state that the GPs involved in the study found the recommendations from the geriatricians constructive and popular with participants and they appreciated the support received in optimising medicines. They concluded that the geriatric assessment in this study is feasible and showed constructive collaboration between GPs and geriatricians from secondary care. They also suggested that further studies and clinical trials are feasible and have scope to yield beneficial outcomes.

The authors highlighted several limitations of this study. In particular, the number of participants was small and it was not a RCT, but a single-arm intervention study, without a control group. Also 10 of the 17 practices invited to take part declined and further investigation is needed to understand why, as this might have an impact on wide-scale generalisability of this intervention.

**Commentary**

Commentary provided by Amy Bradley, Senior Clinical Pharmacist for North Tyneside CarePlus, conducting domiciliary medication reviews for frail elderly people as part of a multidisciplinary team

This study (Lea et al. 2017) aimed to evaluate the feasibility and potential clinical benefits of medicines optimisation through comprehensive assessment of elderly patients by secondary care geriatricians in general practice.

The premise is simple. The GP selects patients based on an initial electronic list (those over 65 years who are on 8 or more medicines); using their knowledge of patients to prioritise those who are most likely to benefit from a comprehensive geriatric assessment. These patients spend an hour with a geriatrician who completes a holistic review and formulates a list of recommendations including changes to prescribed medicines, which are passed to the GP for action. Prioritising structured, medication review to certain people, such as those who are elderly and/or taking multiple medicines is compatible with the NICE guidelines on medicines optimisation and multimorbidity.

The study concluded that such assessment by geriatricians in a general practice care setting were feasible, and that they provide a high level of satisfaction for GPs and service users. They did not, however, demonstrate the clinical benefits of such reviews; the authors recommend further research in the form of a RCT to assess the impact of interventions on emergency healthcare episodes and service usage.

Furthermore, as this study comments primarily on the medication changes recommended by the geriatricians, a useful comparator could be the analysis of similar reviews undertaken by other healthcare professionals such as pharmacists or pharmacy technicians. Comparisons could be made regarding the benefits of such interventions weighed up against the cost of particular staff groups and sustainability of the service.

Interestingly, the majority of interventions involved stopping medications or decreasing dosages, which suggests that inappropriate polypharmacy may have been present in many patients. Unfortunately, the authors do not comment on the clinical nature or appropriateness of the interventions. Since participants in this study received the assessment only once, it is also not known whether multiple
assessments by a geriatrician are feasible and/or beneficial. Participants were asked to comment on the usefulness of the assessment process, but these data were not captured in the study paper. This limits any conclusions about patient experience and whether the assessment process aligns with NICE guideline on medicines optimisation, which recommends a patient-centred approach to structured, medication review.

These findings are consistent with my experience in practice. I have witnessed and been involved with reviews by geriatricians with people in primary care in a variety of settings including GP surgeries and nursing care homes; and can testify that these are well received by health professionals and patients alike. It is reasonable to suggest that these interventions would benefit patients, reduce medicine costs and result in fewer attendances to both primary and secondary care settings; but this has yet to be demonstrated in robust clinical trials. Research is required on the clinical effectiveness of interventions such as these – and on the potential for improvement of quality of life for our rapidly aging population.

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References

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