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The assessment and treatment of a complex geriatric patient by an interprofessional primary care team

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Summary

Mr K is an 89-year-old married man with a number of comorbid conditions and multiple recent falls. He was referred to the IMPACT clinic (Interprofessional Model of Practice for Aging and Complex Treatments) as his primary care physician was concerned about his declining health and the growing care giver burden on his wife. Mr K's condition was deteriorating while the complexity of his case was increasing; therefore, an in-depth team assessment was sought to determine the best management plan and to assess his capacity to remain at home (his expressed preference). The IMPACT team met with Mr K and his wife for a 2 h interprofessional assessment. A comprehensive care plan was developed including specific recommendations for implementing change. After the visit to the IMPACT clinic, Mr K's care was returned to his regular family physician.

BACKGROUND

Primary care physicians (eg, family physicians or general practitioners) are providing care for a growing number of community-dwelling older patients with multiple chronic diseases. Typically, these clinical encounters are complex, requiring multiple decisions in a short time frame. This trend is only expected to accelerate with the ageing of the baby boom generation.

Increasing age is associated with increased health services utilisation. A recent study indicated that overall healthcare utilisation increases significantly with age. The mean number of utilisation events for patients aged 65+ years was 70 events per annum, and this rises to 130 by the age of 85. Drugs and diagnostics account for the majority of these events.[1]

Primary care physicians are expected to provide an increased number of preventive services, while being both evidence based and patient centred. Current models of primary care do not allow sufficient time to address multiple health needs or to create comprehensive care plans. A recent multi-national study found that German, British and American primary care physicians are allocated 6, 10 and 10 min for a routine visit, respectively and 12, 20 and 36 min for a complete physical, respectively.[2]

As clinical trials generally exclude patients with multiple chronic conditions, most clinical practice guidelines (CPGs) have a single-disease focus.[3] Also, CPGs might conflict with each other and might not be appropriately applied to complex patients.[4] Good quality care requires the input of many allied health professionals in a team-based environment.[5] The present case illustrates an innovative interprofessional approach to providing care for a complex older patient with multiple diagnoses and multiple medications. These patients see an increased number of specialists and are often subject to multiple referrals for diagnostic testing and assessment. Furthermore, it is challenging for the primary care physician to manage their care effectively as it is not possible to address a large number of issues in a short visit. Also, additional support and expertise by other healthcare providers, working as a team, can help to identify patient relevant needs and allow for the development of a comprehensive patient-centred plan.

The IMPACT clinic features an interprofessional team that works with the patient, care giver and referring family physician. During the 2 h appointment, a diverse range of medical, functional and psychosocial issues can be investigated. To date, 120 patients have been seen in IMPACT, and a number of patients have visited more than once (188 total visits). More than 60 residents have participated in IMPACT for an average of three rotations each.

The IMPACT clinic begins with a 20 min quality of life interview performed by a medical resident, while the rest of the team watches on a closed circuit TV. As the interview takes place, the rest of the team takes note of the interview and has smaller discussions around what is going on. The resident then returns to the room and has a discussion with the entire team around the patient, and teams main concerns and priorities for the visit are determined as a group. Additional healthcare providers perform further assessments depending on the patient's needs. This may include nursing, physiotherapy, occupational therapy, pharmacy, nutrition and social work. Once these assessments are performed, the team reassembles to create an interprofessional care plan for the patient and follow-up plan for the referring family physician.

CASE PRESENTATION

Mr K is an 89-year-old married man living with his wife in a condominium in suburban Toronto presented with chronic kidney disease, bipolar disorder, spinal stenosis, aortic aneurysm, peripheral vascular disease, gout, complete incontinence secondary to TURP (×2) and numerous falls. Previously, Mr K had been completely worked up,

including a full neurological and orthopaedic assessment. It was the opinion of the orthopaedic surgeon that there were no surgical interventions that would benefit Mr K. Likewise, a neurological consultation recommended no further interventions. In both instances, care was returned to the primary care physician. Mr K suffers from chronic imbalance, and prior to coming to IMPACT, he was having great difficulty managing his activities of daily living, past his safety threshold and in need of a new care plan. His wife is able-bodied but suffers from several chronic health conditions herself. She requires joint replacement surgery but has delayed this in order to meet the care needs of her husband. She had been experiencing increasing care giver stress in the months leading up to their visit to the IMPACT clinic. Two weeks before Mr K's visit, he had a bad fall where he tore his left rotator cuff. His stated preference is to remain in his home as long as possible.

INVESTIGATIONS

Mr and Mrs K were introduced to the team and taken to an exam room by his regular family physician and a second year family medicine resident. It was explained to Mr K that the resident would like to ask him some questions and that the primary care physician and the rest of the IMPACT team would be viewing the interview on a closed-circuit TV in a room across the hall (figure 1). An initial 30 min interview was conducted by the family medicine resident while the team watched. This initial interview 'unpackaged the patient's story' as follows:

Mr K has lived in his current home (a condominium apartment) for the past 10 years. He had been regularly using the pool and exercise room, but not since his fall 1 month prior, in which he was not found for 2 h. In the daytime, Mr K is reliant on his wife for depends change. He is able to bathe himself, although his wife must assist him with all transfers. At night, Mr K requires a diaper change every 2 h, which greatly increases care giver burden as he is not able to do this alone thus there is a significant negative impact on sleep hygiene. Both Mr and Mrs K have problems with their memory. Mr K has some difficulty remembering appointments but is able to remember names and places. His cognition is regularly assessed by the psychiatrist who manages his bipolar disorder. Mr K is noted to be highly intelligent, and despite some cognitive decline, he remains able to perform complex activities such as telephone banking.

Mr K has a complex medication regimen. Mrs K assists with medication taking. Mr K's regular daily medications are as follows: Lipitor (10 mg tablet once a day), ferrous gluconate (300 mg tablet once a day), valproic acid (500 mg tablet once a day), flomax (0.4 mg tablet once a day), allopurinol (200 mg tablet once a day), quinine sulphate (200 mg tablet once a day), zopiclone (¼ of a 7.5 mg tablet once a day), Tylenol (1000 mg tablet three times a day), ibuprofen (400 mg twice a day), calcium/magnesium (1 tablet twice a day), vitamin B (1 tablet once a day), vitamin D (1000 IU once a day) and a multi-vitamin (1 tablet once a day). In addition, Mr K keeps a supply of several bowel medications at home (docusate, lactulose and senokot).

Mr K has had many falls. His wife reports that he has very poor balance and now falls frequently. On the day before his visit to the IMPACT clinic, he fell twice, in the living room and in the bathroom. He is now unable to pick himself up, and, therefore, Mrs K feels uncomfortable leaving her husband unattended. He now leaves home only for appointments. Consequently, the couple has become increasingly socially isolated, which is exacerbated by limited social supports. Mobility is difficult but facilitated with a rollator walker. Transfers are very difficult. Mr K reports pain in his neck and uses a special pillow at night, with a hot pack. Mr K goes to the physiotherapist once per week to improve his gait, his transfers and his neck pain. Although he no longer uses the gym, he continues to walk with his rollator to the mailroom in his condominium daily.

Mr K reports a good appetite and no weight loss. Since his wife has fibromyalgia and increasing fatigue, she is no longer able to prepare meals at home. As a result, Mr K often eats fast food and frozen meals. Mr and Mrs K's main concerns at this visit were his falls, mobility and

Figure 1 Several IMPACT team members confer (foreground) while observing fellow team members interact with the patient (inset).

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incontinence, as well as her stress and fatigue. The team's concerns aligned with those of Mr and Mrs K. Following the initial interview by the resident, other members of the interprofessional team performed specific assessments on Mr K.

The physiotherapist was the first to assess Mr K, while the social worker spoke to his wife separately about the stress she was experiencing in caring for her husband as well as her own health concerns. Next, the occupational therapist and nurse spoke with Mr and Mrs K about a home safety assessment and other options for depends changes. The dietitian provided information regarding healthy eating and meal preparation. Next, Mr K spoke with the pharmacist, who had reviewed his current medication regimen while Mr and Mrs K were meeting with other members of the team. The pharmacist spoke with Mr and Mrs K about his daily medication-taking routine. This conversation included the reasons why he was taking each medication and the best time of day to take each medication. Owing to the concerns about falls, blood tests were ordered to assess the current levels of valproic acid.

Each of the above assessments was approximately 15 min long.

TREATMENT

After these assessments, the team reassembled to review their findings and to develop a plan for Mr K. The team's recommendations were communicated verbally by the family physician to Mr and Mrs K together. In addition, a written copy of the recommendations was provided in the form of an 'interprofessional care plan'. The plan was presented in a folder along with additional information that included nutrition suggestions, a list of community programmes and resources, exercises from the physiotherapist and an up-to-date medication list with the time of day he was to take each medication and the purpose of each medication.

Mr K was encouraged to continue walking to the mailroom daily and to begin physiotherapy for his shoulder. He was referred to the local falls prevention programme and was told he would be contacted for his first appointment date. He was also told that the team's community nurse would be following up with him about a double-layer diaper product, whereby he could remove the inner layer during the night which would mean that his wife would not have to wake up as frequently. In terms of home safety, the social worker encouraged in-home support and a two-way phone system that would allow Mrs K to communicate with Mr K when he's at home alone. Mr K was also referred to the local home care programme for a transfer safety assessment. Mr K was given a reminder list as to what medications he is on and when he is to take them. A blister pack was also discussed. Mr K left with a package where all of this information was conveyed and handouts were provided for him and his wife.

OUTCOME AND FOLLOW-UP

Following the visit, the IMPACT team discussed and documented a follow-up plan for Mr K's primary care physician. Each area of concern and goal was documented. For each concern, a specific task was delineated for the primary care physician at Mr K's next visit, as well as a plan for long-term care.

At Mr K's next primary care visit, the family physician is to inquire whether Mr K is still able to get to the mailroom and whether he is attending physiotherapy. His shoulder AROM will be measured, and he will be told to reduce ibuprofen, as tolerated.

Mr K will be asked about the start date for the falls prevention programme and whether the home safety assessment has been performed. His valproic acid levels will be reassessed to ensure the dose is not too high and is not contributing to his falls. In the longer term, the primary care physician will confirm completion of the falls prevention programme and will raise the issue of alternate forms of supportive housing.

With regard to care giver stress and additional health risks, the family physician will inquire about in-home support, whether the two-way phone system has been installed and whether Mrs K is now able to leave the home more often. A care giver anxiety test will be performed, and Mrs K's sleep hygiene will be evaluated as a gauge of Mr K's continence and improvement in sleep. At a future visit, a MoCA assessment will be performed in order to assess further cognitive impairment in Mr K.

DISCUSSION

The IMPACT clinic uses a unique approach in caring for complex older patients. As the number of chronic conditions increases, the number of treating physicians, medical visits and medications prescribed all increase.[4] The objective of the IMPACT clinic is to identify each patient's complexities and personal concerns so that they can be addressed in comprehensive fashion by an interprofessional team. Routine primary care visits allow neither for an in-depth patient-centred assessment nor for the establishment of detailed care plans. In the IMPACT clinic, the initial interview, the team discussion and the various assessments are determined by the patient's needs. This improves the patient's care and efficacy for change/improvement and provides a very clear and comprehensive picture for future visits to the primary care physician. Indeed, the interprofessional care plan provides instruction and ongoing support for the physician and patient alike.

Learning points

- An in-depth assessment to 'unpackage' the patient's needs and major concerns was necessary and instrumental in this complex patient.
- Understanding what the patient and care giver are capable of and willing to address is crucial in order to initiate change and to make improvements in the patient's condition.
- An interprofessional team assessment was sought in order to prioritise the patient's needs and to develop a comprehensive care plan for the patient and the family physician.
- The interprofessional care plan with achievable patient goals and clearly defined provider follow-up will ensure the best possible outcomes.

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Competing interests None.

Patient consent Obtained.

REFERENCES

1. **Nie JX,** Wang L, Tracy CS, *et al* Health care service utilization among the elderly: findings from the Study to Understand the Chronic Condition Experience of the Elderly and the Disabled (SUCCEED project). *J Eval Clin Pract* 2008;**14**:1044–9.
2. **Konrad TR,** Link CL, Shackelton RJ, *et al* It's about time: physicians' perceptions of time constraints in primary care medical practice in three national healthcare systems. *Med Care* 2010;**48**:95–100.
3. **Tinetti ME,** Bogardus ST Jr, Agostini JV. Potential pitfalls of disease-specific guidelines for patients with multiple conditions. *N Engl J Med* 2004;**351**:2870–4.
4. **Upshur RE,** Tracy S. Chronicity and complexity: is what's good for the diseases always good for the patients? *Can Fam Physician* 2008;**54**:1655–8.
5. **Barrett J,** Curran V, Glynn L, *et al*. Interprofessional Collaboration and Quality Primary Healthcare, 2007. Ottawa, ON: Canadian Health Services Research Foundation. http://www.healthcouncilcanada.ca/docs/rpts/2008/Synthesis%20Report_E_FINAL%20%282%29.pdf (accessed 25 Jan 2011).