Debate & Analysis

Identifying high-frequency attendees in general practice

INTRODUCTION

Primary care is critical to the effectiveness and sustainability of the health system in the UK. This is recognised in the current transformation of health care that aims to provide care and treatment in the community rather than through hospital-centred services.[1,2] The effects of an ageing population with complex multiple morbidities, coupled with increased consumerism, have placed an unprecedented demand for access to general practice. Combined with specific supply-side factors, including diminished funding of general practice and an imminent recruitment crisis, this brings to the fore the need for new approaches to delivering primary care.

FREQUENT ATTENDERS AND PRACTITIONER BEHAVIOURS

One area that has received little attention within the context of transformation is the phenomenon of a proportion of the registered practice population consulting their GP frequently.[3–5] Gill and Sharpe's 1999 systematic review of frequent consulters in general practice concluded that there were two general approaches used to define a frequently consulting group. One approach is to identify a cut-off point in the distribution of consultation activity (for example, top quartile). The other approach is based on a minimum number of consultations (for example, a cut-off of 9–14 consultations per annum). These patients have highly complex health problems, including combinations of multimorbidity, frailty, dementia, polypharmacy, and problems requiring complicated management plans. Personal circumstances and health anxiety are also prevalent.

Practitioner behaviours also contribute to regular consultations by frequently attending patients. A welcoming approach with positive regard maintains interaction. Hence, when a patient is reliant on a particular GP, the GP is not necessarily in a position to challenge the situation, as this may damage the doctor–patient relationship. Alternatively, offering regular review may also be more concerned with addressing issues of confidence and offering support to patients when all treatment options have been provided. Although much is known about the characteristics of these patient and practitioner behaviours, few processes have been developed to identify

these individuals during the routine delivery of primary care services.

DATA MINING OF CLINICAL INFORMATION SYSTEMS

General practices have accumulated significant amounts of data from their registered patient population, and these data are locally hosted in clinical information systems. The mining of information systems can be undertaken for a variety of purposes, including identification and monitoring of consultations, clinical management of patients, audit, and quality assurance. Through a combination of discovery and predictive data-mining techniques, clusters of patients with similar characteristics and attendance behaviour can be identified. With the developing sophistication of clinical information systems there is an opportunity to use practice data differently. There is also the potential to quantify the impact of the demand for consultations by frequent attenders on the capacity of primary care to respond effectively to the requirement of current NHS policy to release demand in secondary care.

DEVELOPING A SYSTEM THAT IDENTIFIES PATIENT NEEDS

In a practice development project led by Corbridge Medical Group with researchers from Northumbria University, processes have been developed that enables use of general practice information systems to identify consultation behaviour and the associated workload. In this practice it was

identified that 6% of registered patients use 24% of all GP face-to-face, telephone, and home visit consultations (based on the analysis of consultation data for 2013). These procedures have been tested in two other practices with similar results (5–7% of the registered population use 24–27% of GP face-to-face, telephone and home visit consultations; 2015 consultation data) (data available from the authors on request). Analysis of the presenting problem titles recorded for these consultations reveals patterns in patient behaviours and clinical clusters. This new business intelligence capability generated through advanced mining of data has highlighted the potential for clinical information systems to be used very differently, and for contemporaneous data to be used to inform the way that primary care is delivered.

We have also developed search tools that enable us to 'flag' patients who frequently attend the practice on a near-to-real-time basis. This has led to some surprising outcomes. We thought we knew the patients who frequently requested consultations — and we do know some of them — but others see different GPs and practice nurses for many different problems. There was the belief that frequent attenders were primarily those who were older, had multimorbidity, or were end-of-life patients. However, our findings have not been limited to these conditions. For example, a group of 53 high attendees have an average age of 43 years and consult GPs on average 34 times a year. The clinical information systems did not readily highlight consultation use

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and associated patterns. The alert draws attention to the number of attendances within a 12-month period. Once activated, we may explore their history further to identify why they require appointments. This is done in order to take a holistic consideration of their problems and unmet needs, such as health anxiety or somatisation.

The intention of our team in developing these systems and tools is not to castigate patients who frequently attend the practice. Rather, by understanding patient and practitioner behaviour we seek to identify unmet needs, and use practice clinical information systems in a way that informs clinical decisions. As a practice team we are using patient data to explore if there are different ways of delivering our services, ones with the potential to support patients to live more healthily and manage their conditions more effectively. We have implemented and are testing new pathways of care and services in the practice, and these may have the potential to provide a quality service to patients while reducing the number of consultations. For example, we have implemented extended 30-minute review appointments that are conducted by the GP and practice nurse together. We ask the patient to complete an SF36 and prioritisation of their life and health needs prior to the appointment. This data informs the discussion, and helps with the development of a life care and emergency healthcare plan. Initial evidence from implementation and feasibility studies indicates that there is a reduction in consultation rates. These outcomes need to be subjected to systematic investigation in order to assess causality, effect size, and how long the effect is sustained. Importantly, the impact on patient quality of life needs to be understood. Our aspiration is that these new approaches will release capacity within the practice to provide other services, such as advanced care planning for high-risk patients and those patients needing end-of-life care.

DATA-SHARING AT THE FEDERATED LEVEL

New models of general practice federations and alliances are emerging. These models support the delivery of scaled-up solutions of general practice, as evidenced through the NHS England GP Access Fund Scheme[6] and NHS England New Models of Care Programme.[7] Use of alliance/federation-wide enterprise licences and the establishment of data-sharing agreements would provide the capability to implement centralised solutions for data mining, searching, and reporting across all GP practices within the group. This 'at scale' approach to data mining would usefully identify the frequent-attender patient cohort, informing both practice-based solutions and exploring locality (population-based) solutions.

Groups of practices operating at scale have the opportunity to support population-based initiatives. The use of local data to support business intelligence in general practice has much potential to support transformation of general practice. Applying the findings from the Corbridge project on a federated basis creates the opportunity to release significant capacity within local health systems, aligning with the vision of improved access to general practice.[2]

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