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NEW MODELS OF CARE IN IBD IN CHANGING TIMES

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The goals and expectations of inflammatory bowel disease (IBD) care have undergone a paradigm shift, which has had a significant impact on health care delivery. Recent expert guidelines suggest that clinical targets such as resolution of abdominal pain, rectal bleeding and normalization of bowel habit should be corroborated by objective markers including endoscopy or non-invasive markers such as C-Reactive Protein (CRP) and fecal Calprotectin. Such a "treat-to-target" approach is aimed at achieving mucosal healing but whether such "tight-control" improves outcomes compared to conventional management based on traditional clinical disease indices alone remains to be proven (CALM - NCT01235689) (1).

Despite the emphasis on mucosal healing as a key therapeutic goal, patient reported outcomes, which are validated surveys in clinical trials that quantify patient reported qualitative data, are being increasingly recognized as important because IBD has an impact on the patient beyond the effects of disease activity alone (2). The World Health Organization has proposed that optimal management of chronic diseases such as IBD should involve an "integrated" approach, encompassing comprehensive bio-psycho-social assessment and multidisciplinary management. Such an approach has been

associated with an improvement in psychosocial functioning and reductions in opiate use, hospitalization and in-patient health-care utilization (3).

Although an "integrated" approach should represent the standard of care for IBD, a recent report by Price Waterhouse Coopers commissioned by Crohn's and Colitis Australia (CCA) has indicated that there are currently several barriers to achieving quality of care for patients with IBD in Australia. IBD care has been inconsistent and often inadequate. Optimal management should be "preventive" but current models are predominantly "reactive". Treating flares of the disease will not change the outcome of IBD, which are chronic in nature. Access to appropriate and cost-effective services remains inconsistent. Although it is recognized that IBD nurses play a key role in coordinating complex multidisciplinary care, funding of IBD nurse positions is limited and center specific. An integrated evidence-based approach to quality improvement is therefore necessary and the National Quality of Care Audit currently being undertaken by CCA will hopefully shed further light on these issues.

Variation in practice remains a further barrier to the delivery of quality health care. Coordination of care in IBD is complex and prone to human errors of "omission". Based on the premise that most errors in medicine are errors of "omission" rather than errors of "commission", standardizing practice via clinical pathways for decision support may be one way of maintaining quality of care in IBD.

A further strategy to address the complexities of chronic disease management in IBD has been via an emerging approach to health care delivery referred to as "participatory" health care models. Participatory medicine involves a collaboration between patient and their physician and refers to a movement in which networked patients move from being merely passengers to responsible drivers of their health, and in which providers encourage and value them as full partners. Participatory medicine promotes patient involvement in their care with the view to enabling patients to help themselves.

Electronic Health (eHealth) technologies such as web-based solutions, smartphone apps and telemedicine represent modalities that may be used to facilitate participatory medicine because the underlying principle of eHealth solutions is that they incorporate an element of self-management. Such an approach via virtual clinics has been found to reduce outpatient attendance visits by up to 20% of an IBD cohort (4). Patients relay their information to a program or health-care team who give them feedback. Patients can then adjust their therapy based on pre-determined algorithms or seek medical assessments. eHealth interventions to date in IBD have been found to improve adherence, knowledge about the disease, quality of life, access to and communication with IBD physicians, and have been found to empower patients in the self-management of their disease to potentially reduce healthcare costs in IBD (4). However, the evidence behind eHealth in IBD remains limited. Outcome measures have been heterogeneous. Clinician and

patient input has been lacking and there has been limited uptake of eHealth interventions perhaps due to the dichotomy between the functions that patients and clinicians prioritize; patients prioritize functions that enhance convenience whereas gastroenterologists prioritize evidence and functions that promote compliance and adherence. A balance needs to be struck between empowering patients with shared decision making and functions that help improve compliance (5).

In summary, new models of care should encompass treatment targets that are individually based. Collaboration between patients and physicians is required to achieve optimal outcomes. The growing burden of disease in IBD has the potential to negatively impact on the delivery of quality care. Novel solutions are required to avert a crisis. "Participatory Health care Models" via eHealth strategies may offer a solution particularly if they are combined with objective measures of disease activity such as CRP and fecal Calprotectin. It is anticipated that such an approach will help ensure long-term success via tighter control, thereby enabling earlier prediction of disease flares and prevention of disease progression. eHealth therefore has the potential to break down barriers to the delivery of quality of care in IBD.

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Conflicts of Interest

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