

## Bridging the gap of follow-up care for high-risk patients with established coronary artery disease

In this month's BANCC column, Nicola Bowers emphasises the importance of secondary prevention in acute coronary syndrome. Nicola is president elect of the BANCC and clinical academic nurse lead for integrated medicine at Buckinghamshire Healthcare NHS Trust.

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Heart disease remains the biggest killer in the UK, with one admission every 3 minutes for acute coronary syndrome (British Heart Foundation, 2017). Acute coronary syndrome is an umbrella term covering different types of coronary artery disease, including heart attacks and unstable angina. Acute coronary syndrome is caused by a sudden reduced blood flow to the heart, normally caused by thrombosis. Patients who have experienced an episode of acute coronary syndrome are at increased risk of another thrombotic event (Abu-Assi et al, 2016), with the likelihood of recurrence increasing over time, because of the associated comorbidities (Rapsomaniki et al, 2016). However, secondary prevention clinical pathways for patients with acute coronary syndrome are not well defined.

Much of the available evidence on the treatment of patients following acute coronary syndrome concentrates on the initial cardiac event. There is limited information regarding the prevention of acute coronary syndrome recurrence after 30 days, the preventative medications available, or adherence to secondary prevention strategies (Lassenius et al, 2021). While it is widely understood that platelet therapy is pivotal in the prevention of secondary thrombotic events in patients with a history of coronary artery disease, the risks and benefits have only recently been thoroughly investigated (Bolognese and Felici, 2020).

Furthermore, despite reports of over 90% of patients with acute coronary syndrome being discharged from hospital on appropriate cardio-preventative medications, evidence shows that regimen adherence slowly declines over time (Arnold et al, 2013), leading to increased morbidity and mortality (Kubica et al, 2015; Pietrzykowski et al, 2020). However, there is limited evidence available on whether follow up and patient education in high-risk patient groups, such as those with acute coronary syndrome, make a difference to medication compliance or outcomes (Anderson et al, 2017). The complex clinical treatment pathways required by these patients, coupled with a lack of evidence on best care approaches, can lead to omissions in care, resulting in worst outcomes (Burke et al, 2017).

There is variability in the standard of healthcare provided to patients following an acute coronary syndrome event. In many cardiology divisions, the care pathway for patients with acute coronary syndrome involves attending a post-percutaneous coronary intervention clinic, approximately 6 weeks after the event. The aim of this is to increase medication adherence and provide an opportunity to advise and educate patients (Mathews et al, 2015). These patients are then offered participation in a cardiac rehabilitation programme, but once they have completed the programme, they are discharged back into primary care.

Recently, the National Institute for Health and Care Excellence (2019) has recommended rivaroxaban plus aspirin (within its marketing authorisation) as an option for preventing atherothrombotic events in adults with coronary artery disease or symptomatic peripheral artery disease who are at high risk of ischaemic events. Following the COMPASS randomised clinical trial (Eikelboom et al, 2017), the National Institute for Health and Care Excellence (2019) also approved an acute coronary syndrome dose of rivaroxaban 2.5 mg twice a day. However, widespread implementation into current clinical practice has not yet been realised (Harrison and Newby, 2019).

It has been recognised that the optimal care pathway to prevent recurrent cardiac events requires a collaborative, multidisciplinary and integrated approach across primary and secondary care (Rassaf et al, 2013). However, the need for complex care pathways can often

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lead to inertia. Lord Darzi (2008) reported that the NHS is the creator of inventions, yet often fails to implement sustainable, systemic innovative pathways. A report by Cooksey (2006) identified frustrations in the delay of the implementation of evidence-based applications and medications into clinical practice treatment pathways, and provided proposals to expedite the implementation of clinical innovations. Yet, over a 10 years later, it is questionable whether these processes are any further advanced (Gupta et al, 2017).

The adherence and management of these patients are complex and there have been educational guidelines proposed for primary care practice nurses (Warriner and Al-Matok, 2019). The need for a multidisciplinary approach is well recognised, including the incorporation of a community pharmacist in cardiology medication optimisation, yet no standardised treatment pathway has been created (Omboni and Caserini, 2018). National and local stakeholders need to collaborate to establish and embed better services for all patients with long-term conditions to bridge this obvious gap of long-term follow-up care (Coulter et al, 2013).

The ultimate ambition for the NHS would be for all patients across every discipline to have access to a digital information technology platform, where evidence-based guidelines are uploaded as soon as they become available. This could assist, guide and educate patients, as well as all health professionals involved in the delivery of care. Both the patient and health professionals would have access to this shared care record, which would be updated with every medication change, investigation and results as soon as they were available. This has been recognised across the nation and within the NHS as a way of empowering patients, yet implementation and collaboration is segregated across the network (NHS England, 2020; Digital Health, 2021; Access, 2022).

McCormack and Mills (2017) acknowledged the increased benefits of follow-up care to individuals who have experienced an acute coronary syndrome event and that this aftercare is shared between secondary care, primary care and cardiac rehabilitation. The British Association for Cardiovascular Prevention and Rehabilitation has published core components for rehabilitation and future prevention (Cowie et al, 2019). There is also a six-staged framework that is used within the NHS Digital software package for the National Audit of Cardiac Rehabilitation (Cowie et al, 2020). This includes a recommendation for 3- and 12-month follow up, where funding allows. This enforces Darzi's (2008) theory that the NHS recognises innovation interventions, yet delays in implementation mean that patients have to wait to reap the benefits.

To close the efficiency gap for patients and reduce the current postcode lottery for healthcare amid ever-increasing demands on the NHS, innovative, sustainable and efficient ways of working need to be developed to continue to deliver a higher quality service to an ageing population. Because of the financial constraints on the NHS, there is also a need to increase grant applications and collaborate and integrate with academia, research and industry colleagues to embed innovative treatment pathways that can bridge the gap between primary and secondary care, for the ultimate benefit of patients (NHS England, 2015; National Institutes for Health Research, 2019).

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