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Internet support for point-of-care testing in primary care

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One of the few and largest randomised controlled trials of point-of-care testing (PoCT) in general practice was conducted in Australia.¹ This trial showed PoCT provided the same or better clinical effectiveness than central laboratory testing for HbA1c, urinary albumin/creatinine ratio, cholesterol and triglyceride measurements but not for the international normalised ratio (INR) or high-density lipoprotein (HDL) cholesterol.² For most tests, however, testing in the central laboratory was more cost-effective than PoCT.³ One factor that contributed to the higher cost of PoCT was the considerable amount of resources devoted to training and monitoring the PoCT operators throughout the trial, many of whom were in remote locations.

Thus, a key challenge for PoCT is to find ways to reduce the cost of establishment and ongoing processes that are necessary in order to assure that testing is being conducted to the requisite quality. In rural South Australia, the Integrated Cardiovascular Clinical Network, Country Health South Australia (iCCnet

CHSA) has been delivering PoCT services to a large network of rural and remote hospitals and general practices for 12 years.⁴ PoCT is conducted by trained nurses and doctors, who receive the majority of their support via the internet and telephone.

The above model has been extended to the establishment of a new website (www.appn.net.au) to provide countrywide support to PoCT operators in general practice. Via a Department of Health and Ageing Quality Use of Pathology Program grant, the Australian Point-of-Care Practitioner's Network (APPN) provides all the required information to conduct PoCT, including identification of clinical needs, selection of instruments, test-specific clinical information, installation process, operator training, quality control, and quality assurance procedures and certification. Technical and clinical information related to the above aspects was included in a module for each of the following tests: glucose, HbA1c, lipids, urinary albumin/creatinine ratio, INR, NT-proBNP, D-dimer and troponin. Other tests can be simply added as the need develops.

Access to the website is free through a secure login and, from the information provided, operators can test their understanding by

answering a series of questions and having their responses assessed. Such competency assessment is available for each test and certificates are issued to those providing the requisite number of correct answers. As well as reducing cost, online training for PoCT avoids operators having to attend training elsewhere, which is often difficult for those in rural and remote areas. Additional services include webinars and a telephone helpline to deal with any PoCT-related enquiry. The educational material on the website is accredited for continuing professional development (CPD) points from the Royal Australian College of General Practitioners (RACGP) and Australian College of Rural and Remote Medicine (ACRRM) for GPs, and self-allocated Royal College of Nursing of Australia (RCNA) CPD points for nurses.

Since the launch of the APPN website, nearly 2000 registrants have been recorded and approximately 40 new registrations continue to be recorded each month. After 2.5 years, GP and nurse registrants had completed more than 1300 competency tests with an average of three attempts being recorded to obtain a pass. Calls to the APPN hotline were mainly from nurses or patients and were related to

issues such as help with troubleshooting errors on devices, requesting more information about external quality assurance (EQA) testing and general queries about the website and what it can offer the user.

The results so far from this project suggest that using largely a website to communicate with and deliver content to PoCT users is viable and may be a less expensive alternative to face-to-face support. Uptake of the APPN website, as indicated by visitors and registrants, has been high, feedback has been positive and, during the project, no problems required a face-to-face visit. The results of the quality control performance obtained by practitioners who were trained via the website, compared with those receiving face-to-face training, also suggest that the web-based model can provide and support the requisite training and competency.

Given that there continues to be a demand for PoCT by GPs in the community,⁵ the APPN website could provide significant support for many hundreds of PoCT users covering the full spectrum of tests available now or in the future. This can be achieved with relatively few resources and thereby provides a very cost-effective model for PoCT support. GPs and nurses who conduct PoCT but are not currently aware of this project are encouraged to visit the APPN website (www.appn.net.au) and use the resources to support their testing.

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