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Routine glucose assessment in the emergency department for detecting unrecognised diabetes: a cluster randomised trial

TO THE EDITOR: We congratulate Cheung and colleagues[1] on their large cluster randomised trial of routine blood glucose and automated glycated haemoglobin (HbA_{1c}) testing in emergency departments. This trial reaffirmed the high prevalence of unrecognised diabetes in patients presenting to the emergency department, while demonstrating the feasibility of algorithmic detection. However, the rate of documented follow-up plans in patients with suspected or newly diagnosed diabetes was low and did not benefit from the trial intervention. Cheung and colleagues[1] and Hare and Shaw,[2] in their accompanying editorial, suggest that this may relate to diabetes services already operating at full capacity or to overburdened staff documenting abbreviated plans at discharge. The trial highlights the difficulty in improving outcomes when multiple non-integrated health professionals manage a condition and, hence, the importance of continuity of care.

The RAPIDS trial[3] was an early intervention model of care consisting of integrated continuous acute diabetes care provided by a dedicated, proactive specialist inpatient diabetes team (IDT). The intervention involved an IDT using a networked blood glucose meter system to remotely identify inpatients with diabetes (known and newly diagnosed) to directly manage these patients, compared with usual care, where diabetes management was mostly provided by parent unit teams.[3] This trial showed that direct diabetes management by a dedicated IDT improved glycaemia and decreased the rate of hospital-acquired infections.

During the RAPIDS trial, in patients with newly discovered hyperglycaemia (random capillary glucose > 11.1 mmol/L without known diabetes), treatment and follow-up plans were documented in 11/34 patients (33%) with usual care, comparable to findings by Cheung et al. However, with the IDT intervention, 22/28 patients (79%) had treatment and follow-up plans. Similarly, in patients with newly diagnosed diabetes (HbA_{1c} ≥ 6.5%), diabetes treatment was commenced in 8/17 patients (47%) with usual care, and in 11/12 patients (92%) with IDT intervention[3] (unpublished data). It is likely that the presence of an IDT at one of the control hospitals in the trial by Cheung and colleagues contributed significantly to the improved plan documentation in that arm.

We thus echo the editorial and professional society voices asserting the importance of resourcing clinical services for diabetes in Australian hospitals.[4] Establishing IDTs in our hospitals will enable excellent diabetes care despite the increasing prevalence of this disease in Australia.

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2 Hare MJL, Shaw JE. Inpatient diabetes care requires adequate support, not just HbA_{1c} screening. *Med J Aust* 2019; 211: 452-453. https://www.mja.com.au/journal/2019/211/10/inpatient-diabetes-care-requires-adequate-support-not-just-hba1c-screening

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