

How well are we managing hyperglycaemia in hospitalized patients in DGRI?

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Why should we care?

- In 2022, 4.3 million people were estimated to have diabetes mellitus (with approximately 850,000 still undiagnosed)
- In-patient prevalence of diabetes is increasing: from 1 in 6 patients in 2017 it is anticipated to rise to 1 in 4 by 2030.
- Poor glycaemic control leads to impaired recovery, prolonged hospitalisation, increased patient anxiety and sometimes a breakdown in the relationship between patients and their healthcare team.

Why was an intervention needed?

- We surveyed doctors' confidence in managing hyperglycaemia:
- 15 respondents (7 FY1 and 7 Middle-grade doctors and 1 Registrar)
- Of those aware of the original DGRI hyperglycaemia protocol, 28% did not find it easy to use and **53% felt they had not had clear explanations on how to manage hyperglycaemic cases**
- 65% of respondents answered that in cases of high blood glucose where a correction dose is not indicated they still feel significant pressure to prescribe one
- 1/3 doctors would not alter a patient's insulin regime out of hours even if they felt this was needed (felt safer to be left to the day team)

What did we do?

Identified insulin correction doses by analysing insulin prescription charts and establishing how many correction doses were appropriate

Round 1

- 28 correction doses
- 46 % - appropriate dose of insulin
- 21% - excess insulin
- 28% - not enough insulin
- 3% - received insulin when not required

Intervention

- New protocol developed with diabetes team with a more accessible format. Disseminated via email and handbook.
- Teaching delivered via FY1 teaching session and grand round
- 4 quizzes raising awareness of guidance plus chance to win prizes

Round 2

- 11 Correction doses
- 45% - appropriate dose of insulin
- Of the incorrect doses : 50% received excess insulin and 50% did not receive enough insulin

Key takeaways:

- 1) Increasingly difficult to find correction doses during second round
 - Potentially due to increased confidence in NOT prescribing unnecessary doses
- 2) No increase in the number of correct correction doses
- 3) There is likely still a lack of confidence in prescribing higher doses of insulin when needed due to the fear of hypoglycaemia
- 4) Active engagement with the quizzes and teaching sessions indicating a high motivation to learn adequate hyperglycaemia management
- 5) Further teaching and education required to support healthcare staff in managing challenging hyperglycaemia cases