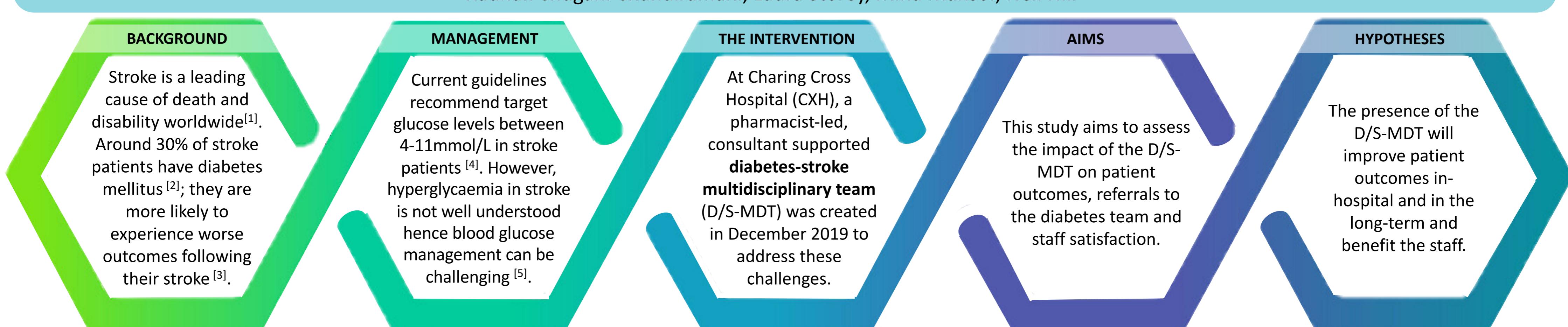


Investigating the Impact of a Dedicated Diabetes-Stroke Multi-Disciplinary Team (D/S-MDT) on Patient Outcomes, Referrals and Staff Satisfaction

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METHODS - PATIENT OUTCOMES

- 1) Stroke patients with diabetes at CXH in January and February of 2019 and 2020 were chosen.
- 2) Patients admitted in 2019 were the 'Control' group (n=73)
- 3) Patients admitted in 2020 were the 'D/S-MDT' group (n=75)
- 4) Patient baseline characteristics, in-hospital and post-discharge outcomes were obtained

Figure 1. Study protocol involving patient outcomes

Patient Outcomes Measured

| Baseline Characteristics | In-Hospital | 90-Days Post-Discharge |
|--------------------------|------------------------|--|
| • Age | • Diabetes Status | • Hypoglycaemic events |
| • Sex | • HbA1c on admission | • Hyperglycaemic events |
| • Ethnicity | • Glucose on admission | • Glycaemic variability |
| • BMI status | • Stroke category | • Mortality |
| • Smoking status | | • Change in disability since admission |
| • Alcohol status | | • Change in dependency since admission |

METHODS – STAFF OUTCOMES

- 1) Referrals to the Diabetes team and D/S-MDT were quantified from patient records
- 2) Questionnaires measured the MDT members' (n=3) attitudes towards the D/S-MDT
- 3) Questionnaires measured stroke-ward staff's (n=19) attitudes towards the D/S-MDT
- 4) All data was analysed using Graphpad Prism

Figure 2. Study protocol involving staff outcomes

- How frequently the D/S-MDT is involved in the care of patients
- How the D/S-MDT impacts the staff's confidence when treating diabetes
- How useful the feedback from the D/S-MDT is when treating diabetes
- Overall feelings toward the D/S-MDT

Figure 3. Main aspects of the D/S-MDT explored through the questionnaires.

RESULTS

Patient Outcomes

- 73 patients with diabetes were admitted to CXH in January and February 2019 ('control' group); 75 patients in January and February 2020 ('D/S-MDT' group).
- No difference in baseline characteristics
- **In-Hospital:** No significant difference in the care provided to patients
- The number of hypoglycaemic events almost halved from the control to the D/S-MDT group (Fig. 4) but was not significant
- **Post-Hospital:** No significant difference

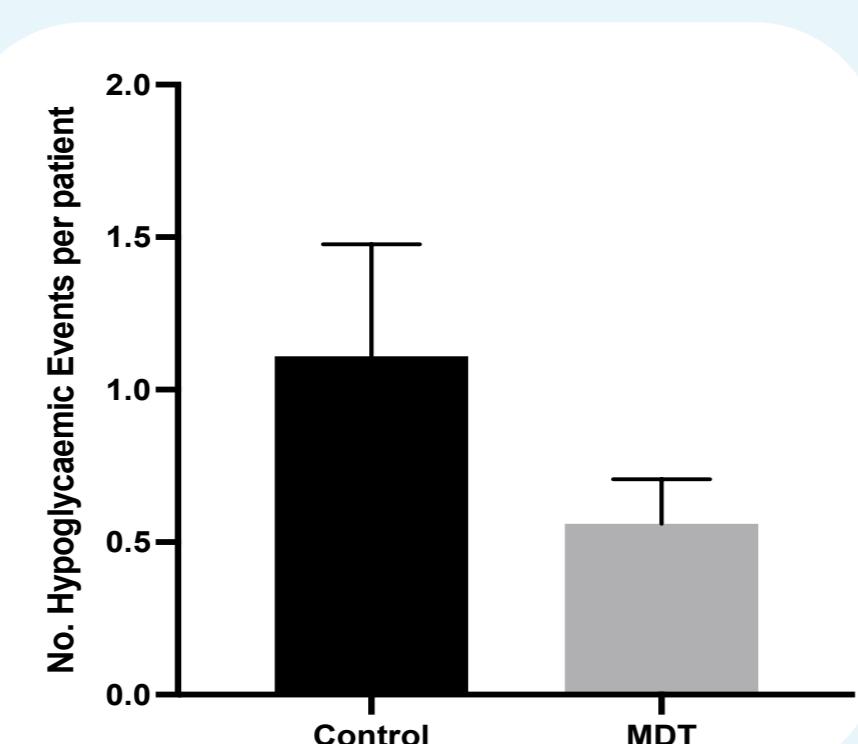


Figure 4. Mean (SEM) number of hypoglycaemic incidents (BM <4 mmol/L) per patient during hospital admission in the control group (n=73) and the D/S-MDT group (n=75).

Staff Outcomes

- Referrals to the Diabetes Team reduced significantly ($P<0.0001$) from the control to the D/S-MDT group (Fig. 5A)
- The total number of referrals to the Diabetes Team (in 2019) and to the Diabetes Team and D/S-MDT combined (2020) were not different (Fig 5B)
- Responses to the questionnaires from the ward staff were overwhelmingly positive
- D/S-MDT members felt that:
 - The D/S-MDT was a good use of their time
 - They were extremely likely to keep being involved in the D/S-MDT

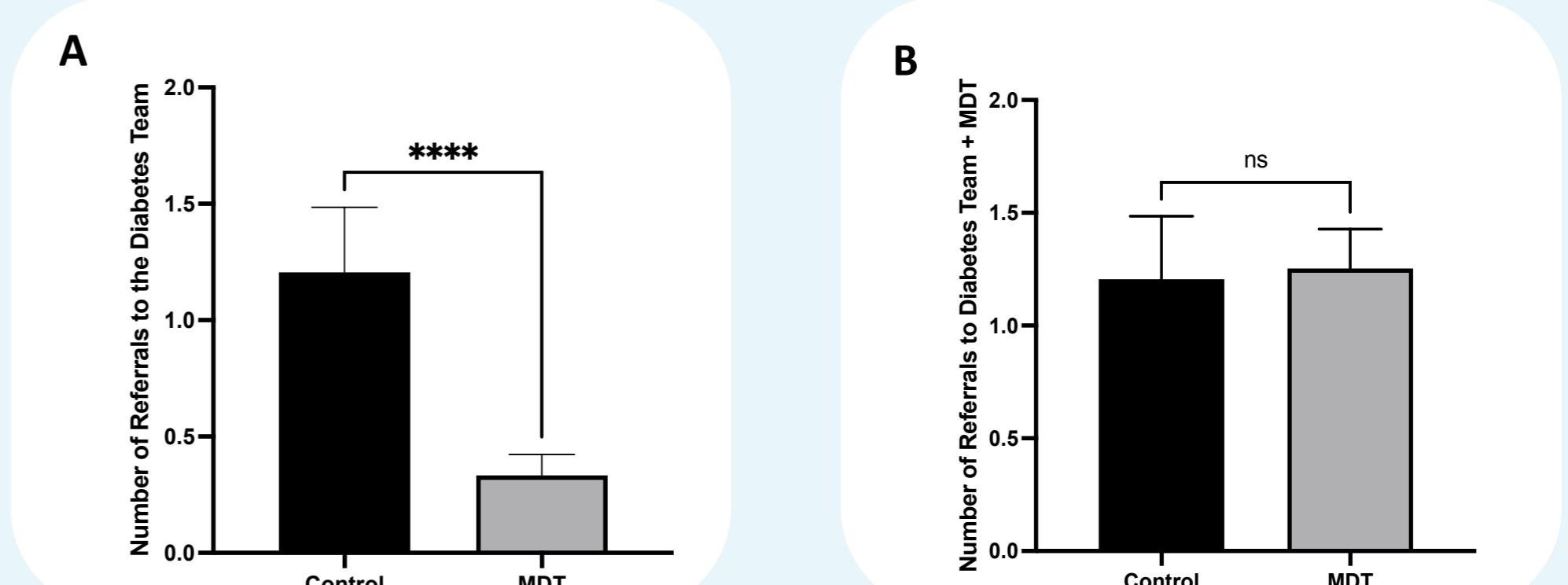


Figure 5. (A) Mean (SEM) number of referrals to diabetes team per patient and, (B) to the diabetes team and the D/S-MDT per patient, in control (n=73) and D/S-MDT groups (n=75). *** = $p< 0.0001$; ns = no statistical significance

CONCLUSIONS

- The addition of the D/S-MDT significantly reduced the burden of referrals from the diabetes team.
- The D/S-MDT maintained standards in managing patients with diabetes and stroke.
- Ward-staff were satisfied with the feedback received from the D/S-MDT.

In conclusion, this study suggests that the D/S-MDT is a positive addition to CXH.

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