

# National Audit results lead to improved diabetes care

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In 2009, Dudley Group of Hospitals took part in the first National Diabetes Inpatient Audit (NaDIA). The results helped to give a clear picture of the inpatient experience locally and enabled us to make a case for expanding the diabetes team to deliver improvements in patient outcomes and significant financial efficiencies.

## Summary of NaDIA 2009 findings

- Of the 22.4% of inpatients with diabetes, only 6.6% were coded for diabetes in the same month.
- Prescription errors in 24.7% of inpatients with diabetes, including units being abbreviated to "U", the dose of insulin being unclear and diabetes medication being given at the wrong time.
- Inappropriate management of hypoglycaemic episodes occurred in 73.9% of inpatients with diabetes.
- Of the total referrals to DSNs, 23.3% were inappropriate.
- The average length of stay for people with diabetes was 8.13 days.
- Management errors were identified in 14% of people with diabetes. Most commonly, the dose of insulin was not adjusted according to blood glucose level results.

## Service redesign

Using the findings of the 2009 audit, the diabetes team approach the Dudley Group of Hospitals board with a business case to

expand outreach services to inpatients. The team were able to secure funding for an additional consultant diabetologist to provide senior medical rounds four times per week and a DSN (increasing the "front-door", nurse-led service time to 6 days per week), with additional dietitian and podiatry support.

The ThinkGlucose campaign was then launched in August 2010. This was a comprehensive training package implemented to raise the awareness and basic understanding of diabetes and treatment, and diabetes protocols and documents were updated. The teaching package included a brief overview of the management of diabetes, including the safe management of people on insulin, care of those on variable-rate insulin infusions and management of hypoglycaemia. The main objectives were to reduce average length of hospital stay and to reduce HbA<sub>1c</sub> levels from admission to 3 months post-discharge.

## Outcomes from NaDIA 2010 and internal audits

- The ThinkGlucose team has delivered teaching sessions to 70% of nursing staff, including dedicated sessions for night staff.
- Improvements in hypoglycaemia management were seen, with the proportion of appropriately managed episodes increasing from 26 to 65%.
- Inappropriate referrals to the specialist

diabetes team decreased from 23% to 14%.

- Insulin prescribing errors reduced from 24.7% to 6.0%.
- Overall, 82% of participants said they were "satisfied" or "very satisfied" with care.
- In the first 8 months of the project, the mean reduction in length of hospital stay was 0.61 days. This equates to 2200 bed days released at an average unit cost per bed day of £192. This has generated efficiencies of £422 000 for the trust.
- Reductions in HbA<sub>1c</sub> levels were seen in all groups of participants. The mean reduction in HbA<sub>1c</sub> level was 0.57% (6.2 mmol/mol); those with pre-existing diabetes and initial HbA<sub>1c</sub> levels of >10% (>86 mmol/mol) had an average reduction of 1.21% (13.2 mmol/mol).

## Conclusion

Our major service redesign, focusing on staff education and improving access to a multi-disciplinary team of diabetes specialists, has delivered significant improvements in the management of inpatients with diabetes, resulting in improved glycaemic control at 3 months and a reduced length of stay. ■

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## The IMPROVE™ Control Campaign

The Global Task Force on Glycaemic Control is a group of physicians and specialists in the field of diabetes from around the world that is working in collaboration with Novo Nordisk with the ultimate aim of identifying and developing practical solutions to the global problem of poor glycaemic control in people with diabetes. Since early 2008, the *Journal of Diabetes Nursing* has featured articles and submissions under the banner of IMPROVE™ Control – a global public awareness campaign focused on the need for improved control, as part of the Task Force's work. Throughout 2011, the journal will continue to bring you articles on the barriers to good glycaemic control, and submissions from *you*, our readers, outlining the strategies you have used to help people with diabetes improve their control.

For example, perhaps you have implemented a new educational session in your area that has helped break down barriers to control, or maybe you have set up a new referral pathway that has helped improve HbA<sub>1c</sub> levels. The *Journal of Diabetes Nursing* would like to help you share your practical solutions for improving control, no matter how big or small, with other nurses working in diabetes. We encourage you to take part in this global initiative by calling 020 7627 1510, or emailing [jdn@sbcommunicationsgroup.com](mailto:jdn@sbcommunicationsgroup.com).

