

027

The role of the diabetes specialist nurse prescriber on diabetes service delivery in secondary care

Carey N., Courtenay M.

Objective:

To evaluate the effect of a diabetes specialist nurse (DSN) prescriber on insulin and oral hypoglycaemic prescribing errors, length of hospital stay, and self efficacy (or confidence) in diabetic patients in secondary care

Methods:

National concerns surrounding the management of diabetes include delayed hospital discharges (Davies et al 2001), errors in the administration of insulin (Hiscock et al 2001), and a lack of understanding about diabetes amongst hospital staff (Audit Commission 2000). The National Service Framework (NSF) for diabetes, emphasises the role of nurses in service delivery for these patients. Nurse prescribing should optimise this role. The activity and impact of nurse prescribing in diabetes care is unevaluated

Methodology

- A quasi-experimental approach was adopted in order to compare a nurse- led service with a 'traditional' doctor based model of care.
- Data was collected from 56 patients admitted onto 6 wards, over a 7 month period.

Main Outcome measures

- Length of hospital stay
- Medication errors
- Self efficacy (or confidence) of diabetic patients on admission and at discharge.

Medicines Management Intervention

Phase one: Study patients received routine care

Phase two: Routine care plus the DSN provided patients, medical and nursing staff with 1-3 additional sessions on treatment regime. Patients' medicine regime reviewed by DSN on admission, and then three times a week

Data Analysis Techniques

SPSS and Microsoft Excel were used for data entry and analysis

Results:

Length of stay, the number of prescribing errors and self efficacy at discharge were all significantly affected by insulin administration errors.

Pre-Intervention

- Length of stay was affected by the total number of errors ($r=0.686$, $n=17$, $p<0.01$).
- Length of stay, self efficacy at discharge, and the change in self efficacy were affected by insulin administration errors.

Intervention

- Length of stay was affected by the error 'insulin doses not signed as given' ($r=0.742$, $n=10$, $p<0.005$).
- Self efficacy at discharge was affected by insulin administration errors.

Following the intervention:

- The total number of errors was reduced by 71.7%
- The average length of stay was reduced by 6.66 days (approximately £3000 per patient)
- Mean Change in self-efficacy increased by 13.36 points

Conclusions:

- a) The DSN can make a significant contribution to service delivery and cost savings in secondary care for patients with diabetes.
- b) The DSN medicines management intervention can improve diabetic patients' self-efficacy and thus improve their confidence to self-manage their condition
- c) This study provides the basis for a comprehensive randomised control study to evaluate the nurse-led model of care
- d) The knowledge gained from the project in the first instance will be used in planning and improving service provision for Greater Peterborough Primary Care Partnership, Peterborough and Stamford Hospitals Foundation.