

Speeding discharge: The role of the inpatient DSN

Sue Thompson

As acute Trusts continue to try to improve bed capacity and deliver the emergency bed-day targets, improved care for people with long-term conditions has been identified as an area that can contribute to achieving these aims. Reducing excess length of stay for inpatients with diabetes, and improving the quality of the care they experience while in hospital, are pivotal in planning and delivering care for this patient group. This article outlines the pivotal role of the inpatient DSN in speeding the discharge of people with diabetes back to their homes.

The author has been a DSN for 12 years. She initially worked at Wycombe General Hospital and Amersham General Hospital before it merged with Stoke Mandeville Hospital to become Buckinghamshire NHS Hospitals Trust in 2005. There are approximately 500 acute hospital beds across the three sites. Her role is now primarily in inpatient diabetes care, striving to improve quality of care and patient safety.

Patients with diabetes are referred by all members of the multidisciplinary team for assessment by the inpatient DSN, and sometimes by the individuals themselves. Referrals are made regarding education, sliding scale transfer and insulin initiation for individuals with poor glycaemic control, and also regarding other discharge difficulties related to diabetes (*Box 1*). The patient is assessed, a plan implemented, and a review then made on an individual basis. Follow-up care is also planned post-discharge.

Non-medical prescribing is an important competency to ensure effective delivery of care. The author typically sees 10–16 individuals

daily. Some of these will be initial assessments and some of them will be review. The Trust includes the National Spinal Injuries Unit as part of its remit and, therefore, inpatient stay can be lengthy and complex.

The role of the inpatient DSN has evolved and developed significantly in the past few years since the appointment of the first one in the early 1980s. Evidence from a national audit in 2006 (Sampson et al) shows that DSNs are still not available in all hospitals, despite the recommendations of standard 8 of the National Service Framework for diabetes (Department of Health [DH], 2001). This framework and NHS Diabetes both focus on specific parameters that need to be targeted to achieve these aims (National Diabetes Support Team, 2005).

There is no doubt that the introduction of non-medical prescribing has had a significant impact on diabetes inpatient care, which supports the DH's (2001) vision that this introduction would provide easier access for people requiring medication at the point of care, reducing delays in treatment changes and optimising the use of trained nurse skills,

Article points

1. The role of the inpatient DSN is pivotal in planning and delivering care for people with diabetes from admission to discharge.
2. Non-medical prescribing (independent) is an essential part of the DSN's competencies.
3. The Quick Access to the Community discharge scheme enables speedy and effective discharge.

Key words

- Inpatient care
- Hospital admission
- Length of stay
- Non-medical prescribing

Sue Thompson is an Inpatient DSN, Buckinghamshire Hospitals NHS Trust.

Box 1. Case study showing how the inpatient DSN can help reduce length of stay in hospital.

History:

- Age: 78 years.
- Sex: female.
- Type 2 diabetes.
- Diabetes treatment: biphasic insulin lispro (78 units am, 54 units pm).

Issues:

- Confused on admission due to falling at home.
- She was found to have bilateral oedematous legs, with a degree of heart failure.
- Urinalysis showed nitrites and leucocytes and a urine specimen was sent to the lab for sensitivities.

Assessment:

- On assessment following admission, it was found that Mrs S had experienced hypoglycaemia overnight on two occasions (3.2 mmol/L and 3.8 mmol/L). On the morning when her blood glucose level was 3.2 mmol/L the ward nurses had omitted the insulin, so by lunchtime Mrs S had a blood glucose level of 22.3 mmol/L.
- The junior doctor ordered 10 units of short-acting insulin to correct the hyperglycaemia and by the evening meal, Mrs S had a blood glucose level of 10.4 mmol/L.

Inpatient DSN input:

- The inpatient DSN spoke to Mrs S once her confusion had improved, and she told the nurse that her main meal of the day at home was in the evening, but she had poor appetite at present.
- The DSN also questioned where the nurses were giving the insulin injections and Mrs S stated that they were in the abdomen or leg.
- On inspection, Mrs S's upper legs had some degree of oedema, and there was clearly an absorption problem when her legs were used as insulin administration sites.
- The inpatient DSN reduced the evening dose of insulin to 40 units.
- She also requested that a milky drink and biscuits was offered at bedtime, and that the ward nurses only used the abdomen for insulin injections.

especially in the care of a long-term condition such as diabetes.

Much has been written in the literature about the impact of the inpatient DSN's input on reducing length of stay (Cavan et al, 2001; Sampson et al, 2006). There is now evidence that non-medical prescribing for inpatients can also help reduce length of stay (Courtney et al, 2007). The author's diabetes team has developed the "Quick Access to the Community" (QAC) discharge scheme, which aims to get people with diabetes home

and visited by the community DSN within 24 hours of discharge. Poor glycaemic control should not be a reason to delay discharge once the appropriate medical team has assessed the individual as medically fit for discharge.

Non-medical prescribing

The introduction of non-medical prescribing in 2001 has had a significant effect on enabling effective, appropriate and timely prescribing for people with diabetes at the point of care. However, the fact that it was originally introduced within the confines of a clinical management plan caused problems. This involved arranging a three-way agreement between DSN (the supplementary prescriber), the doctor or dentist (the independent prescriber) and the patient. A doctor's signature was required to support the nurse (supplementary) prescriber, and made it virtually impossible to make changes to in-patient prescription charts without a lengthy process. As James (2005) states: "as nurses, we found it frustrating as we felt we had the confidence and competence to prescribe in our own right".

Among the benefits for people with diabetes, James (2006) demonstrated that non-medical prescribing resulted in "fewer delays in treatment, prompt treatment changes, fewer prescribing errors and an enhanced role for people with the condition in the decision-making process". Supplementary prescribing was implemented with the aim of achieving these benefits, but it was unwieldy and inadequate in its execution.

Independent prescribing

In 2006, independent prescribing was introduced and suitably qualified inpatient DSNs could now prescribe appropriate oral antidiabetes agents and insulin therapy for patients (as well as other medications related to their diabetes). It also supported the DH's (2006) requirements of an initial patient assessment, interpretation of that assessment, a decision on safe and appropriate therapy and a process for ongoing monitoring.

DSNs could now prescribe in a timely manner in the ward environment – using

Page points

1. There is evidence that people with diabetes do not always receive appropriate care in hospital, and insulin therapy in particular.
2. It is well-recognised that people with diabetes are twice as likely to be admitted to hospital than those without the condition, and stay twice as long as those without diabetes.
3. The ability of the inpatient DSN to assess, implement and follow-up treatment changes means patients are prescribed therapy on an individual basis.

the right people, with the right skills at the right time. It also supported the DH (2000) initiative for “one stop care”. DSNs could now prescribe for patients after a thorough assessment of medical, psychosocial and socioeconomic factors on an individual basis. A suitable plan for therapy could be initiated and therapy changed as necessary. The advent of non-medical prescribing also contributed towards achieving standard 8 of the National Service Framework for diabetes (DH, 2001).

There is evidence that people with diabetes do not always receive appropriate care in hospital, and insulin therapy in particular (Flanagan and Baggott, 2008). These authors also recognised the need for meal and insulin injection timing to be coordinated. More disturbing is the misunderstanding of the importance of good glycaemic control (Penfold et al, 2008), and the lack of confidence in modifying diabetes pharmacotherapy in the TOPDOC study (George and McKay, 2009).

The National “Think Glucose” campaign is striving to improve diabetes care for inpatients, and states that “it should be no more acceptable for acute Trusts to be lacking an effective glycaemic control policy than it is for infection control or patient consent”. The campaign specifically targets insulin administration as a major cause for concern. Furthermore, insulin prescribing errors have been identified at Parliamentary level, and June 2009 saw the Westminster Health Forum Keynote Seminar *Diabetes: Quality of Care and Patient Safety* (awaiting publication).

Length of stay

Length of stay in hospital for people with diabetes is an area for concern. It is well-recognised that people with diabetes are twice as likely to be admitted to hospital than those without the condition, and stay twice as long as those without diabetes.

One in ten patients in an acute hospital is likely to have diabetes (DH, 2001). As the number of people with diabetes continues to increase, it is apparent that the inpatient population with a diagnosis of diabetes will also get larger.

Buckinghamshire Hospitals NHS Trust encompasses three district hospitals, and a local inpatient audit performed from 25 February to 21 March 2008 identified 17% ($n=119$) and 11% ($n=132$) of patients as having diabetes as a primary or secondary diagnosis, respectively. There is evidence, however, that independent prescribing by the inpatient DSN can reduce length of stay of these individuals, as well as reduce insulin and oral hypoglycaemic agent prescribing errors (Courtney et al, 2007).

Quick Access to the Community scheme

Evidence of the reduction of length of stay when inpatient DSNs intervene is well supported (Cavan et al, 2001; Sampson et al, 2007), as has the impact of independent nurse prescribing (Courtney et al, 2007).

The QAC referral pathway developed in the author’s locality enables early discharge to the community DSN. The ability of the inpatient DSN to assess, implement and follow-up treatment changes means patients are prescribed therapy on an individual basis.

Follow-up after discharge is undertaken by the community DSN rather than the district nurse. Reducing the need for referral to district nurses is important, as their workload has increased dramatically in recent years. It also ensures timely and coordinated specialist diabetes nursing support.

In the author’s area, the community DSNs have been part of the secondary care diabetes team, which has promoted good communication and liaison across primary and secondary care. Despite being the inpatient DSN, the author is able to undertake domiciliary visits for those individuals with diabetes who have been recently discharged, if the need arises.

Conclusion

Inpatient diabetes care continues to be both challenging and rewarding. As the number of patients with diabetes continues to increase, the role of the inpatient DSN continues to be key in helping to deliver high-quality care. Non-medical prescribing enables appropriate and safe therapy adjustment by the inpatient

DSN, which can enhance the patient's experience and result in a shorter journey from admission to discharge. The local QAC pathway supports this care, and the Think Glucose campaign should further promote good diabetes inpatient care. ■

Cavan DA, Hamilton P, Everett J, Kerr D (2001) Reducing hospital inpatient length of stay for patients with diabetes. *Diabet Med* **18**: 162–4

Courtney M, Carey N, James J et al (2007) An evaluation of a specialist nurse prescriber on inpatient service delivery. *Practical Diabetes International* **24**: 69–74

Department of Health (2000) *The NHS Plan: A Plan for Investment, A Plan for Reform*. DH, London

Department of Health (2001) *National Service Framework for Diabetes: Standards*. DH, London

Department of Health (2006) *Improving Patients' Access to Medicines: A Guide to Implementing Nurse and Pharmacist Independent Prescribing Within the NHS in England*. DH, London

Flanagan D, Baggott A (2008) Inpatient care for people with diabetes – bringing good practice into hospital. *Diabetes Voice* **55**: 13–16

George JT, McKay G (2009) TOPDOC Diabetes: national study of trainee doctors' confidence in managing diabetes. *Practical Diabetes International* **26**: 923

James J (2005) Supplementary prescribing in secondary care: a diabetes specialist nurse's journey. *Nurse Prescriber* **2**: e81

James J (2006) An overview of non-medical prescribing: Past, present and future. *Diabetes Voice* **51**: 26–9

National Diabetes Support Team (2005) *National Diabetes Support Team Fact Sheet No 10: Working Together to Reduce Length of Stay For People With Diabetes*. NHS Diabetes, Leicester

Penfold S, Gouni R, Hamilton P et al (2008) Immediate inpatient management of hyperglycaemia – confusion rather than consensus? *QJM* **101**: 87–90

Sampson MJ, Crowle T, Dhatariya K (2006) Trends in bed occupancy for inpatients with diabetes before and after the introduction of a diabetes inpatient specialist nurse service. *Diabet Med* **23**: 1008–15

Sampson MJ, Brennan C, Dhatariya K et al (2007) A national survey of in-patient diabetes services in the United Kingdom. *Diabet Med* **24**: 643–9

“Non-medical prescribing enables appropriate and safe therapy adjustment by the inpatient DSN, which can enhance the patient's experience and result in a shorter journey from admission to discharge.”