The development of a DSN service to incorporate 7-day working

Debbie Stanisstreet, Diabetes Specialist Nurse, Hertfordshire

Following the catastrophic events in Mid-Staffordshire, as well as the relationship between mortality and day of the week you are admitted to hospital, it is thought that inpatient services should be seamless and be provided 7 days a week.

Detailed analyses of acute admissions in the UK have revealed adverse clinical outcomes for people admitted to hospital at weekends and the Medical Director of NHS England, the Secretary of State for Health, along with the Royal College of Physicians, have all called for a 7-day provision of services that provides the same level of care at weekends as weekdays. There should not be any variation in the standards of care, nor access to specialist teams, investigations or procedures regardless of the day of the week you are admitted to hospital (Freemantle et al, 2012).

NHS England spends up to £2.5 billion a year on inpatient care for people with diabetes. This equates to around 11% of total NHS expenditure. The average length of stay for people with diabetes is up to 3 days longer than for comparable patients with no diabetes. Furthermore, there are higher rates of re-admission (NHS England, 2014)

The East and North Hertfordshire NHS Trust Diabetes Outreach Team (DOT) provides a specialist clinical service with over 600 beds for inpatients with complex diabetes needs in all clinical areas, with the exception of paediatrics; although the boundaries cross over for individuals between 16 and 19 years. DOT has taken part in the annual National Diabetes Inpatient Audit (NaDIA) since its launch in 2010. Our local NaDIA data demonstrates a higher than national average bed occupancy with people who have diabetes (19% versus 15%).

Our case mix is more complex than many centres, given the over representation of people with complications in the Lister Regional Renal Centre and the Vascular Surgical Unit.

A survey by Diabetes UK, which invited people with diabetes to share their inpatient experiences, highlighted that people with diabetes do not believe that staff caring for them have adequate levels of knowledge in diabetes (Diabetes UK, 2008). DOT believes that people with diabetes in the East and North Hertfordshire NHS Trust deserve to be managed well and took steps to facilitate this.

In collaboration with the local Clinical Commissioning Group, a Commissioning for Quality and Innovation (CQUIN) framework was agreed. This CQUIN enabled us to increase our Diabetes Inpatient Team. Until the end of December 2013 the service was delivered 5 days a week with 6–8 Diabetes Inpatient Specialist Nurse (DISN) rounds and two consultant ward rounds each week. Following the recruitment of two additional consultants and a fourth DISN in January 2014, DOT increased to provide a full 7-day service. The addition of one whole-time equivalent (WTE) DISN brought the total DSN establishment to 6.4 WTE provided by 10 DSNs. Four of the 10 DSNs are inpatient focused and six are outpatient focused.

Prior to the launch of 7-day DOT, there was a period of formal consultation with the DSNs. This involved a consultation document being issued to each staff member that laid out the rationale for the change in the working pattern, as well as an explanation of how this would be implemented. Initially, there was the opportunity for the DSNs to discuss this proposal in more depth either at dedicated DSN meetings or on a one-to-one with the manager, with or without HR or representation from unions. Any concerns and worries were discussed and addressed as best as possible within the limitations of the workforce provided.

It was agreed that the 4 hours to be provided

"The DSN team consistently reflects and reviews how it is delivering services required and are constantly looking for ways to improve."

over the weekend and bank holiday would be 8.30 am to 12.30 pm with the following Monday off. This would ensure back-fill for the DSNs whose focus was outpatients to ensure that activity was not disrupted; all of this with the proviso that it could be reviewed and changed if needed after a given amount of settling-in time.

A programme of internal training and revision of Trust management guidelines ensured that there was to be a consistent level of both competency and confidence throughout the DSN team. In addition to this, the lead DSN worked for 1–2 hours with each DSN on their first Saturday shift to support and guide, as required.

Challenges

Providing a 7-day service has not been without its challenges. Change is never easy and can bring its own level of stress to the individual over and above the anxiety of the change itself. This has been observed, as well as personally experienced, over time.

The number of weekends required by each individual was calculated as 7 plus 1 bank holiday per 1 WTE per year and this was *pro rata* for the part-time nurses. Self rostering was decided to be the most effective and fair way to decide who worked which weekends and bank holidays. This was preferred above e-rostering, as it was felt to give more flexibility and scope to swap shifts, if required. There is no provision at the moment to provide back-fill over a weekend or bank holiday to cover unplanned absences; however, as a team, the DSNs are inherently flexible and, although to date there has not been any requirement to provide cover, there are no concerns that the team would not rally to do so if they were needed.

Some DSNs have welcomed the opportunity to reduce the amount of childcare required when having the Monday off following a weekend on duty.

Service review

DOT enables the proactive identification and management of this complex cohort of patients, and, as such, data on DOT's activity are collected prospectively. This review demonstrates that ¼ of the total number of patients seen by the service are seen at the weekend. Individuals admitted with diabetic ketoacidosis, active diabetic foot problems, hypoglycaemia and hyperglycaemia are seen by a member of DOT within 12 hours of arrival, 7 days per week.

On reflection, 4 hours every Saturday, Sunday and bank holiday is not always enough time to deliver the best possible service; however, to deliver full days would mean a true rotation between the outpatient focused and inpatient focused DSNs via e-roster, and this would bring its own dilemmas and stresses in terms of continuity of care for each cohort of patients.

The DSN team consistently reflects and reviews how it is delivering services required and is constantly looking for ways to improve. The core DOT DISNs now have their own caseload. This has improved continuity of inpatient care and reduced the time it takes to send discharge letters to GPs, as well as ensuring timely referrals for follow up and reducing the number of patients who potentially would fall through the net.

Although cost analysis of this initiative is yet to be done, we believe that savings are being made by reducing the amount of admissions to hospital. Furthermore, we are improving patient safety by reducing the number of inappropriate intravenous insulin infusions being used, as well as reducing the unnecessary length of time they are used.

We anticipate that 2015 will bring more challenges as we have two very experienced DSNs retiring, one in March and the second in May. Any new recruits to the team, while remaining as a member of the core outpatient DSN service, will rotate to DOT on a regular basis. This will give them exposure to both sides of diabetes management plus give the DISN who covers for them the chance to keep their skills in outpatient management, as well as inpatient care. ■

Diabetes UK (2008) *Help improve inpatient care.* Diabetes UK, London. Available at: http://bit.ly/1zXOBFc (accessed 28.01.15)

Freemantle N, Richardson M, Wood J et al (2012) Weekend hospitalization and additional risk of death: An analysis of inpatient data. *J R Soc Med* **105**: 74–84

NHS England (2014) *Action for diabetes.* NHS England, London. Available at: http://bit.ly/1d6zE6t (accessed 28.01.15)