

A national survey of in-patient diabetes services in the United Kingdom

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Abstract

Aim To examine in-patient diabetes services in all UK acute hospitals.

Methods We asked the diabetes specialist team in all UK acute hospitals to complete a structured questionnaire on in-patient diabetes management guidelines, in-patient referral patterns, diabetes in-patient specialist nurse (DISN) services and diabetes bed occupancy in their hospital.

Results Of the 262 UK acute hospitals, 239 (91.2%) provided data (2005–2006). UK teams reported high levels of clinical risk associated with in-patient diabetes care. One-third did not have diabetes management guidelines for day surgery, endoscopy, barium studies or immediate management of the diabetic foot. Patients admitted with diabetic ketoacidosis were not immediately referred to the specialist team in one-third of hospitals. About half had no routine access to podiatry or dietetic care for in-patients with diabetes. The majority of UK hospitals either never adopted Diabetes Mellitus, Insulin Glucose Infusion in Acute Myocardial Infarction (DIGAMI)-1 protocols or had recently changed practice, and half do not endorse the use of in-patient subcutaneous insulin 'sliding-scales'. One in five UK hospitals survey in-patient diabetes treatment satisfaction. DISN numbers have increased rapidly—126 hospitals (51.4%) had a DISN, most (69.1%) appointed since 2002. Most (80.2%) hospitals without a DISN used the out-patient specialist nurse team to provide in-patient care.

Conclusions This survey has identified substantial gaps in in-patient diabetes care in the UK. The rapid increase in DISN numbers indicates increasing attention to in-patient diabetes care in UK hospitals.

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Keywords diabetes, DIGAMI, guidelines, in-patient, specialist nurse, specialist teams

Abbreviations ABCD, Association of British Clinical Diabetologists; DIGAMI, Diabetes Mellitus, Insulin Glucose Infusion in Acute Myocardial Infarction; DISN, diabetes in-patient specialist nurse; DKA, diabetic ketoacidosis; DSN, diabetes specialist nurse; IQR, interquartile range; NSF, National Service Framework

Introduction

Most in-patients with diabetes have been admitted because of unrelated general medical or surgical conditions [1–4], are not managed or reviewed by the diabetes specialist team, and stay in hospital longer than age-matched groups without diabetes

[3,4]. The poor quality of in-patient diabetes care in the UK has been noted as an area of concern by patients [5] and in the UK Diabetes National Service Framework (NSF) [6]. In some studies, up to 10% of unselected in-patient populations had diabetes and up to one-quarter of the elderly population with Type 2 diabetes are admitted annually [1–4,6]. The Diabetes NSF stressed the importance of a good diabetes service for all in-patients with diabetes, the need to assess in-patient diabetes treatment satisfaction and the value of in-patient management guidelines [6]. The Diabetes NSF also suggested that in-patient

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diabetes services could be improved by a service model based on a diabetes in-patient specialist nurse (DISN) contributing to the care of all in-patients with diabetes [6]. There is now increasing evidence that excess diabetes bed occupancy can be reduced by this service model [1,7,8]. There are no national data on in-patient diabetes services in the UK despite this being a core standard in the Diabetes NSF [6]. We therefore surveyed all UK hospitals to assess the national provision of in-patient diabetes services in 2005/2006.

Methods

We asked all specialist diabetes teams in UK acute hospitals to complete a structured questionnaire on in-patient diabetes services for their hospital. The questionnaire was sent to both the senior Consultant Diabetologist and the senior diabetes specialist nurse in each hospital. The survey was completed between 18 May 2005 and 1 March 2006.

Hospitals and diabetes specialist teams

Hospital data were obtained by searching UK Department of Health data [9] and cross-referencing with (i) the UK DISN register held at our centre, (ii) published data on UK diabetes specialist services [10] and (iii) direct contact with UK Strategic Health Authorities. We identified 262 hospitals in the UK with in-patient beds where there was a diabetes service with an identified Consultant Diabetologist. These 262 hospitals were distinct from UK Acute 'Trusts', which are often responsible for several hospitals. Of these 262 hospitals, 200 were in England, 29 in Scotland, 18 in Wales and 15 in Northern Ireland. There are 30 small or peripheral hospitals in the UK with in-patient beds, with no identified specialist diabetes team. These were not approached directly, although many have diabetes care cover offered by a team from a larger neighbouring hospital.

Questionnaire

The survey questionnaire comprised 63 questions in five sections and is available as a supplementary file (<http://www.blackwell-synergy.com/action/showOpenAccess?journalCode=dme>). The questionnaire was developed with comments from committee membership of the UK DISN group and the committee of the UK Association of British Clinical Diabetologists (ABCD). No previously validated survey instruments were available to guide questionnaire development. Questions in the survey were worded to minimize responder bias. We asked particularly about the use of Diabetes Mellitus, Insulin Glucose Infusion in Acute Myocardial Infarction (DIGAMI) protocols [11,12] for inpatients with diabetes admitted with myocardial infarction. We also asked for the written views of specialist teams on in-patient diabetes services in their hospital.

Data analysis

Data are presented as mean (1 SD) or median [interquartile range (IQR)]. Differences in distributions between groups were analysed by Fisher's exact test. Differences between groups in continuous

variables were analysed by unpaired *t*-test or Mann-Whitney *U*-test.

Results

Responses to questionnaire

There were 239 (91.2%) responses to the questionnaire from 262 specialist teams. There were 167 teams (69.8%) who could provide data on the number of patients with known diabetes in their population, and their total population. The mean local diabetes population per specialist team was 9756 (9127) and the mean overall population size 298 130 (208 496). These 167 teams recorded 1 629 321 patients with known diabetes in a population of 46 210 223, a mean diabetes prevalence of $3.3 \pm 1.2\%$ (range 0.4–8.5). Responses were made by a consultant diabetologist in 71 hospitals (29.7%) or diabetes specialist nurse in 168 hospitals (70.1%).

Comments from specialists teams on in-patient diabetes services

Eighty-two responding teams (34.3%) made written comments on in-patient diabetes services in their hospital. Of these respondents, 46.3% ($n = 38$) reported clinical risk associated with in-patient diabetes care in the UK. These anonymized comments are available as supplementary files (<http://www.blackwell-synergy.com>).

Use of in-patient diabetes management guidelines (Table 1)

The use of diabetes in-patient management guidelines in UK hospitals is shown in Table 1. About one-third of responding hospitals did not have in-patient management guidelines for the immediate management of the diabetic foot, for endoscopic procedures or barium studies in insulin-requiring patients, or for patients with diabetes undergoing day surgery. Nearly all hospitals had guidelines for the management of diabetic ketoacidosis, but a minority did not have guidelines for the management of acute severe hypoglycaemia or perioperative diabetes care. Overall, only 20.4% of UK hospitals had all 10 guidelines listed in Table 1. There was no significant difference in the frequency of guidelines use between those with or without a DISN ($P > 0.1$ for each guideline; data not shown). Most teams (86%) stated that they would be happy to share established guidelines with other UK teams via the ABCD website

Referral of emergency admissions to the diabetes specialist team (Table 2)

Table 2 shows the number of UK hospitals where patients admitted with the acute complications of diabetes were referred to the specialist diabetes team on the day of admission. About three-quarters of UK diabetes teams stated that patients with diabetes admitted with acute ischaemic or infected neuropathic foot ulceration were not referred to them on the day of admission.

Table 1 Numbers of acute hospitals in the UK using in-patient diabetes management guidelines

Management guideline	Responses	Yes (%)	No (%)
Diabetic ketoacidosis	224	216 (96.4)	8 (3.6)
Perioperative management—insulin-requiring patients	220	199 (90.4)	21 (9.6)
Acute severe hypoglycaemia	222	195 (87.8)	27 (12.2)
In-patient blood glucose monitoring policy	220	190 (86.4)	30 (13.6)
Perioperative management—non-insulin-requiring patients	219	188 (85.8)	31 (14.2)
Gastroscopy in insulin-requiring patients	220	157 (71.3)	63 (28.7)
Colonoscopy in insulin-requiring patients	219	153 (69.8)	66 (30.2)
Day surgery	224	156 (69.6)	68 (30.4)
Immediate management of the diabetic foot	224	151 (67.4)	73 (32.6)
Barium studies in insulin-requiring patients	220	143 (65.0)	77 (35.0)

Data derived from 239 responding UK hospitals' specialist diabetes services—data shown for hospitals making response to each component of structured questionnaire.

Table 2 Numbers of acute hospitals in the UK where high-risk diabetes admissions are referred to the diabetes specialist team on the day of admission

Reason for admission	Triaged to diabetes team on admission		
	Responses	Yes (%)	No (%)
Newly diagnosed Type 1 diabetes	224	182 (81.2)	42 (18.8)
Diabetic ketoacidosis	221	142 (64.2)	79 (35.8)
Acute severe hypoglycaemia	223	124 (55.6)	99 (44.4)
Hyperosmolar non-ketotic coma	220	119 (54.1)	101 (45.9)
Infected neuropathic foot ulcer	220	64 (29.1)	156 (70.9)
Ischaemic foot ulceration	219	54 (24.6)	165 (75.4)

Data derived from 239 responding UK hospitals specialist diabetes services—data shown for hospitals making response to each component of structured questionnaire.

Sixty hospitals (25.1%) had no guidelines for the immediate management of the diabetic foot and also did not refer these patients to the diabetes team on admission. In one-half of UK hospitals, patients admitted with acute severe hypoglycaemia or hyperosmolar non-ketotic coma were not referred to the specialist team on admission, and in one-third, patients admitted with diabetic ketoacidosis were not referred. There was a significantly higher referral rate of acute metabolic complications to the diabetes specialist team on the day of admission in hospitals with a DISN ($P < 0.001$; data not shown).

In-patient diabetes treatment satisfaction questionnaire

Some form of in-patient diabetes treatment satisfaction questionnaire was being used in 45 (20.5%) of 219 responding UK hospitals.

Use of DIGAMI protocol in the UK

Of the 239 responding diabetes teams, 223 (93.3%) provided data on the use of the DIGAMI protocol after myocardial infarction in patients with diabetes [11,12]. Of these, 177 (79.3%) used a DIGAMI protocol and 45 (20.7%) did not

have a DIGAMI-1 protocol. In addition, we asked 'have the negative results of the DIGAMI-2 study altered your practice'. Eighty-eight (39.4% of total) of UK diabetes teams confirmed that negative results had altered their practice. These data suggest that 133/223 (59.6%) of UK hospitals either never started using DIGAMI-1 or had changed their practice after the DIGAMI-2 results were published [12].

Access to podiatry and dietetic cover for all in-patients in UK acute hospitals

Of 228 responding hospital teams, 133 (58.3%) reported that they had access to a dietitian for all in-patients with diabetes, and 96 (42.2%) of 227 hospital teams reported that they had access to a podiatrist for in-patients with diabetes.

DISN staffing levels

There were 123 acute hospitals (51.4%) with a DISN service and 116 (48.6%) without. Twenty-three hospitals (9.6%) had two or more DISNs, with a UK total of 146 DISN appointments between 1980 and 2005. These nurses were appointed at high grades in the nursing salary scale—G grade (52.1%) or

	Responses	Yes (%)	No (%)
DISN involved in training of			
Student nurses	119	106 (89.1)	13 (10.9)
Healthcare assistants	117	101 (86.3)	16 (13.7)
Senior house officers	117	63 (53.8)***	54 (46.2)
Pre-registration house officers	117	58 (49.5)***	59 (50.5)
DISN receives direct clinical support from			
Consultant diabetologists	118	85 (72.0)	33 (28.0)
Specialist registrar (diabetes)	121	79 (65.3)	42 (34.7)
House officer (diabetes)	117	74 (63.2)	43 (36.8)
DISN suggests changes in			
'Sliding scale' insulin regimens	120	101 (84.2)	19 (15.8)
Other insulin regimens	120	115 (95.8)	5 (4.2)
Insulin dose adjustments	120	119 (99.2)	1 (0.8)
Oral glucose-lowering drugs	122	118 (96.7)	4 (3.3)
DISN undertakes nurse prescribing for			
Sliding scale insulin regimens	120	10 (8.3)	110 (91.7)
Other insulin regimens	120	20 (16.6)	100 (83.4)
Insulin dose adjustments	120	27 (22.5)	93 (77.5)
Oral glucose-lowering drugs	120	17 (14.2)	103 (85.8)

Data shown as number and percentage (%) of UK hospitals ($n = 126$) where diabetes in-patient specialist nurse (DISN) is involved in this clinical or training activity.

*** $P < 0.0001$ compared with training of student nurses.

Table 3 DISN activity in the 126 UK acute hospitals with a DISN in 2005/2006

H grade (26.9%)—and 103 (69.1%) had been appointed since 1 January 2002. Most DISNs (58.8%) had been funded by their hospital and 13.7% had been funded by a Primary Care Trust. The rest were funded through pharmaceutical company donations, reconfiguration of existing posts or departmental endowments. Eighteen (14.2%) hospitals did not have recurring funding confirmed for their DISN post.

National and regional variability in the use of DISN

There was significant variability between the four UK nations in the use of the DISN model: 109 of 185 (59.0%) responding hospitals in England and seven of 18 (44.0%) in Wales had a DISN, a significantly higher proportion ($P < 0.0001$ and $P = 0.05$, respectively) compared with four of 25 (16.0%) responding Scottish hospitals. In Northern Ireland, three of the 13 responding hospitals (23%; NS) had a DISN service.

DISN in-patient activity and workload in the UK

Direct clinical care of in-patients occupied a mean $62.6 \pm 13\%$ of DISN time, with $17.0 \pm 10\%$ of time spent on administration, $10.5 \pm 7\%$ on staff education in groups and $10.7 \pm 10\%$ on individual staff education. Time spent on direct clinical care was distributed as $21.6 \pm 14\%$ on patient education, $20.2 \pm 13\%$ on insulin dose adjustment, $18.3 \pm 11\%$ on conversion to insulin regimens, $13.5 \pm 11\%$ on managing diabetic ketoacidosis, $10.3 \pm 10\%$ on perioperative diabetes care and $11.1 \pm 11\%$ on supporting out-patient diabetes clinics. The DISN routinely covered surgical, medical, geriatric medical, orthopaedic

and coronary care units in most (> 90%) hospitals, but ward coverage was lower for Paediatrics (16.6%), Obstetrics and Gynaecology (45.3%) and Accident and Emergency Departments (16.2%). Of the 126 teams with a DISN, 52 (41.2%) had data on annual activity for direct in-patient contacts by DISN. Mean annual in-patient activity for UK DISN teams was 1242 (1062) direct patient contacts per annum.

DISN educational workload and team working

Of the 126 hospitals with a DISN, most DISNs provided diabetes management training for student nurses and healthcare assistants, although training of junior medical staff was significantly less common ($P < 0.0001$). Clinical support for the DISN team was provided by consultant diabetologists in most hospitals and, less commonly, by diabetes specialist registrars or junior medical staff (Table 3). This commitment by consultant diabetologists was a formal or structured direct clinical support for the DISN in the management of all in-patients with diabetes in their hospital (Table 3).

Diabetes specialist nurse in-patient activity and workload

The 239 responding hospitals reported 673 whole-time equivalent diabetes specialist nurses (DSN) and a median of 1.2 ± 0.9 DSN per 100 000 general population. In responding hospitals without a DISN ($n = 113$), the out-patient DSN team routinely contributed to the in-patient management of all diabetes in-patients in 91 (79.1%) hospitals. The majority of teams without a DISN (104/113; 94.5%) felt that a DISN

would improve the quality of in-patient diabetes care in their hospitals, but 31 (28.1%) had had a DISN business case rejected. In-patient activity per DSN team was provided by 53 (46.9%) responding hospitals; mean estimated direct clinical contacts were 881 (782) per annum per DSN team. DSN teams spent a mean 15 ± 11 h per week on in-patient care. The equivalent figures corrected for each whole-time DSN were 311 ± 276 direct clinical contacts and a median 4.0 h (4.4 IQR).

Specialist teams' perception of value of DISN

Specialist teams were asked to give a ranked score for the expected clinical value of a DISN if the team did not already have such a service ($n = 116$ teams), or for what they felt had been the most powerful component of their successful business case if they had such a service ($n = 123$ teams). Teams with a DISN scored reducing excess diabetes bed occupancy as the most powerful part of their successful business cases for developing a DISN service. Teams without a DISN felt that qualitative improvements in diabetes in-patient care, particularly on surgical wards, would be the most valuable clinical aspect of having a DISN (Table 4).

Use of subcutaneous 'sliding scale' insulin algorithms in the UK

We asked 'Does your hospital diabetes team support the use of subcutaneous sliding scale insulin regimens for inpatients with diabetes?' In response, 113 (52.3%) responded 'yes' and 103 (47.7%) responded 'no'. Responding hospitals without a DISN were slightly more likely to support the use of sliding scales (65/111 responses; 58.5%) compared with those with a DISN (52/107; 48.6%), although this was not significant ($P = 0.17$).

Discussion

This survey of in-patient diabetes services in the UK obtained data from most (91.2%) of the 262 acute hospitals in the UK in 2005–2006. The survey provides detailed information on the use of in-patient diabetes management protocols and guidelines in the UK, on referral patterns in UK acute hospitals for diabetes emergency admissions and on the in-patient workload and activity of the multidisciplinary specialist team. The survey also obtained the views of many specialist teams on in-patient diabetes care at their hospital.

One of the most striking observations is the rapid increase in the number of UK hospitals with a DISN service since 2002. More than 100 DISN posts were created between 2002 and 2006, largely through new funding from acute hospitals. This rapid increase in DISN numbers occurred after the publication of the Diabetes NSF, which stressed the potential value of this service model [6]. Investment in a new clinical service on this scale by acute hospitals across the UK must also reflect increasing awareness in acute hospitals of the scale of diabetes bed occupancy and the potential to reduce excess bed occupancy through a DISN model [1,7,8]. This suggestion is reinforced by our observation that teams with a DISN felt that stressing reduced excess diabetes bed occupancy was the most powerful part of their successful bid for a DISN service. We were surprised that only half of UK hospitals use the DISN team to train junior medical staff in in-patient diabetes management, while significantly more are involved in the training of student nurses and healthcare assistants. There is evidence that improved training of junior medical staff on non-specialist wards can improve in-patient diabetes care [13]. This preference for DISNs to train non-medical staff may reflect professional

Table 4 Specialist team perceptions of value of a diabetes in-patient specialist nurse (DISN)

	Score	% highest
Most important components of successful DISN business case (teams with a DISN)		
Reducing diabetes bed occupancy: medical wards	2.04 (1.3)	44.5
Reducing diabetes bed occupancy: surgical wards	2.42 (1.8)	39.7
Overall improvement in hospital diabetes care	2.69 (1.7)	32.5
Improved in-patient diabetes treatment satisfaction	3.17 (1.3)	10.8
Avoidance of litigation	4.16 (2.0)	7.2
Perceived potential value of a DISN service (teams without a DISN)		
Qualitative improvement in diabetes care: surgical wards	2.4 (1.8)	44.0
Qualitative improvement diabetes care: medical wards	2.5 (1.6)	32.7
Improvement in in-patient treatment satisfaction	3.4 (2.3)	35.6
Reducing diabetes bed occupancy: medical wards	3.7 (1.9)	17.7
Management of DKA and hypoglycaemia	3.8 (2.3)	25.2
Reducing diabetes bed occupancy: surgical wards	4.1 (2.2)	20.7
Reduction of DNS workload	4.8 (2.8)	21.4
Avoidance of litigation	5.9 (2.5)	13.1

Data shown as mean (SD). Based on an analogue scale where respondent asked to rank order variables (1–5 or 1–8; highest value to lowest value); low mean score indicates high priority. Percentage (%) indicates number of specialist teams rating that variable as highest score. DKA, Diabetic ketoacidosis; DSN, diabetes specialist nurse.

barriers between specialist nurses and medical staff. Consultant diabetologists were the medical staff group most likely to make a formal commitment to supporting in-patient diabetes services for all in-patients in hospitals with a DISN.

Just under half of UK hospitals did not have a DISN and in most of these (80.2%) the out-patient DSNs provided ward cover for all in-patients with diabetes in their hospital. On average, UK DSN teams in hospitals without a DISN spend 15.5 h per week providing in-patient diabetes care and on average saw only about two-thirds of the patients seen by a DISN team (usually a single DISN). This suggests one hidden benefit of a DISN service is that it liberates substantial DSN time for other aspects of diabetes care. This survey suggests a slightly higher level of DSN endowment in the UK (1.2 per 100 000 population) in 2005/2006 compared with previous UK data from 2000, when the equivalent value was 1.0 per 100 000 [14].

Despite the high levels of diabetes bed occupancy in the UK and elsewhere, very few specialist teams had data on diabetes bed occupancy in their hospital and only a minority felt their IT department would be able to provide these data. This difficulty can be overcome relatively easily, as activity data are collected for each UK hospital and recorded centrally [15]. Specialist diabetes teams can obtain a detailed analysis centrally of their hospital's total diabetes activity through the UK Department of Health [15] without the need for local IT work within their hospital.

The high use of diabetic ketoacidosis (DKA) guidelines in UK hospitals should reduce variability in length of stay in patients initially managed by non-specialist teams [16] and should improve outcomes [17]. The use of perioperative diabetes management guidelines was also widespread in the UK. Improved postoperative glycaemic control can be achieved with the introduction of postoperative management guidelines [18,19] and improved glycaemic control translates into improved outcome in in-patients with or without diabetes [20,21]. There remain substantial gaps in the use of in-patient diabetes management guidelines in the UK, despite most teams being willing to share their guidelines with other specialist teams. A limitation of this study was that we asked about the existence of guidelines within each Trust, but did not ask about adherence to these guidelines or staff resistance to their use, which is equally important.

The conclusion of the original DIGAMI study was that insulin glucose infusion, followed by a multidose insulin regimen, improved long-term prognosis in diabetic patients with acute myocardial infarction [11]. However, 45 responding UK hospitals (20.7%) appear not to have introduced a DIGAMI-1 protocol. The DIGAMI-2 study [12], published just before this survey commenced, failed to confirm the DIGAMI-1 results and led to uncertainty about appropriate management. In the present survey, 88 responding UK hospitals (39.4%) felt that the negative results of DIGAMI-2 had changed their practice, suggesting that most responding hospitals (59.6%) had either never started DIGAMI protocols or had ceased using them

after the publication of DIGAMI-2. A limitation of this study is that we asked about DIGAMI protocols, but not about the prompt referral of diabetic patients with acute coronary syndromes to the diabetes team for metabolic care and follow-up, which may be clinically as important.

In one-third of UK hospitals, DKA patients were not referred to the diabetes specialist team on the day of admission, although there is good evidence that in-patient care provided by a diabetes specialist team for DKA patients reduces in-patient length of stay, treatment costs and readmission rates [22,23]. It is probable (but unknown) that these arguments also apply to the other acute metabolic complications of diabetes such as hypoglycaemia and hyperosmolar non-ketotic coma, and half of UK hospitals do not refer these patients to the specialist team on the day of admission. It is of equal concern that 60 hospitals in the UK (25% of total) have no in-patient management guidelines for patients admitted with an infected neuropathic foot ulcer and do not refer these patients to the specialist diabetes team on the day of admission. The presence of a DISN in the hospital was associated with a significantly higher probability of being referred to the specialist team on the day of admission with acute metabolic complications ($P < 0.001$), but not with any other marker of quality of in-patient services. We have shown recently [1] in a large observational study that a DISN was associated with significant falls in excess length of stay and bed occupancy in our Trust, but did not assess guidelines use or adherence following a DISN appointment [1]. It should be emphasized that improved quality of in-patient services cannot be addressed by the DISN model in isolation and that gaps in in-patient podiatry or dietetic services could be equally important.

We found that a slight majority of UK hospital specialist diabetes teams (113; 52.3%) endorse the use of subcutaneous insulin 'sliding scale' prescribing algorithms for in-patients with diabetes. The use of insulin 'sliding scales' has been heavily criticised, reviewed adversely and described as ineffective at best, and dangerous at worst [24–26]. The American Diabetes Association has recently recommended that traditional sliding scale regimens are ineffective and should be abandoned [27]. Despite this, there remain significant resource issues in UK hospitals in moving from traditional sliding scale insulin regimens to a more direct point of care involvement, although there are other approaches to addressing the scale of this problem [13,24,25]. As far as we are aware, this description of national diabetes in-patient services has not been undertaken in other countries. In the Netherlands and Denmark, for example, with a similar health economy to the UK, there are no national groups specifically dealing with diabetes in-patient care and care models vary widely between acute hospitals (personal communications: EADV First Association of Diabetes Nurses, the Netherlands, and Steno Diabetes Centre, Denmark).

In conclusion, this survey of in-patient UK services has described the provision of in-patient diabetes care in UK acute hospitals in 2005–2006. There remain substantial gaps in in-patient diabetes care, but the increasingly widespread use of

the DISN in the UK must reflect increased awareness of these issues. Improved sharing of existing in-patient management guidelines and in-patient referral protocols in the UK could be clinically valuable.

Competing interests

None to declare.

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