

St Vincent's Hospital Group
Clinical Audit Report Template 2012

Title of Audit:	East Coast Area Diabetes Shared Care Programme Audit 2010	<i>For office use: audit number</i>
Date of report:	April 2012	
Department/Speciality:	Endocrine Department of SVUH, SMH and SCH and ECAD primary care teams	Re-audit date:

Audit lead:	Jean O'Connell	Endocrine Lecturer
Authors:	Jean O'Connell Deirdre Hall Yvonne Ryan Janet Mathias Tony O'Sullivan	Endocrine Lecturer Diabetes Nurse Specialist Senior Community Dietitian Senior Community Dietitian General Practitioner

Background & Aim:	<p>East Coast Area Diabetes Shared Care Programme (ECAD) has been in operation since 2002. There were initially 10 GPs enrolled in the programme. In 2011, 15 more practices joined the programme, increasing the number of patients in ECAD from 650 to 2,200 approximately. The patients enrolled have Type 2 Diabetes. They receive a minimum of 2 visits within primary care each year and attend SVUH, SMH or SCH for Annual Review (AR). A small number of patients living a long distance from the hospital choose to have their AR performed within the community. The programme is supported by one Whole Time Equivalent (WTE) Diabetes Nurse Specialist (DNS) and one WTE Senior Community Dietitian. In the majority of cases both DNS and Dietitian review each patient at each review within primary care.</p> <p>This audit aimed to a) assess the process and outcome of care in the ECAD shared care programme during 2010 and b) to compare outcomes of care with a similar group attending hospital only.</p>
-------------------	--

Standard:	Standards were measured against internationally recognised guidelines for diabetes care as set down by the American Diabetes Association.
-----------	---

Methodology:	The sample consisted of 20 randomly selected T2DM patients from each of the 10 shared care diabetes clinics, and 20 patients attending the SCH diabetes service (termed SCH cohort). This included patients who did not attend for scheduled clinic appointments. All results refer to the shared care cohort unless stated as SCH cohort.
--------------	--

St Vincent's Hospital Group
Clinical Audit Report Template 2012

	<p>We performed a retrospective analysis of risk factor surveillance and management in the sampled population. Data was collected from patients' case notes and manually recorded onto data collection forms.</p> <p>The audit tool consisted of a form with questions relating to the process of care, lifestyle factors, DM duration, control, management and complications.</p>
--	--

Results:	<p>Population</p> <p>193 patients were included in the audit (173 shared care, 20 SCH). Gender distribution was 60% male and 40% were female. There were no patients in the 19-30 year age group, 15% were aged between 31-50yrs, 31% were 51-64yrs, 23% were 65-75yrs and 32% were older than 76yrs. The SCH cohort had 42% between 65-75yrs and 5% older than 76yrs. The majority of patients had T2DM between 3-10yrs (56% shared care, 65% SCH).</p> <p>Attendance</p> <p>For the shared care patients the secondary care hospital was SCH (42%), SVUH (35%), or SMH (22%).</p> <p>Primary care visits: 63% had attended for 1 or 2 visits during 2010, 17% attended between 3-10 visits, and 20% had not attended a primary care diabetes clinic that year.</p> <p>Secondary care visits: 53% attended the diabetes hospital clinic once in 2010, 9% attended 2-3 times, 38% did not attend the hospital clinic that year.</p> <p>The AR visit took place in the hospital (62%) or in primary care (4%). 33% had no AR recorded and 1% were recorded as unknown AR status. There was a record of the AR visit in 53%, no record in 20%, and 27% were deemed not applicable as they had not had an annual review in 2010.</p> <p>Glycaemic control</p> <p>62% had a HbA1c < 7%, 77% were < 7.5%.</p> <p>In the SCH cohort, 63% had a HbA1c < 7%.</p> <p>Microvascular Surveillance</p> <p><i>Record of diabetes nephropathy</i> - 13% of patients had a record of</p>
----------	--

albumin:creatinine ratio (ACR) in 2010; 9% had a normal ACR, 3% had microalbuminuria and 1% had macroalbuminuria. 52% of patients did not have ACR performed in 2010 and 35% did not know if an ACR had been performed.

In the SCH cohort, 85% had a record of ACR in 2010; 60% had a normal ACR, 15% had microalbuminuria and 10% had macroalbuminuria. 10% did not have ACR performed in 2010 and in 5% it was not known if ACR was performed.

Record of retinal screening - 19% of patients had a record of retinal screening in 2010; 13% of patients had a normal result and 6% had an abnormal report. 50% of patients did not have retinal screening in 2010, and in 31% it was not known if retinal screening had been performed.

In the SCH cohort 70% of patients had a record of retinal screening in 2010; 40% of patients had a normal result and 30% had an abnormal report. 20% did not have screening and 10% were unknown.

Record of peripheral neurovascular disease - 80% of patients had lower limb assessment during 2010; 52% of patients had a normal foot examination, 4% had neuropathy, 3% had neurovascular compromise and 5% had vascular compromise. 2.5% had a foot ulcer. 20% did not have their feet assessed in 2010 and 14% had no record of foot assessment in their notes.

In the SCH cohort 30% did not have a foot exam and 15% were unknown.

Macrovascular Prevention

Blood pressure - 46% of the sample had a systolic SP less than 130mmHg, 34% were between 130-140mmHg, 13% were between 141-150mmHg and 7% of the sample had a systolic BP greater than 150mmHg. With regard to diastolic BP; 73% had a recording of <80mmHg, 22% were between 81-90mmHg and 5% were between 91-100mmHg.

Lipid profile - 24% of patients had an LDL cholesterol of <1.8mmol/L, 35% were between 1.8-2.5mmol/L and 41% had 2.6mmol/L or greater. HDL cholesterol levels showed 58% of males within target and 40% of females within target. 66% of patients had triglycerides lower than 1.7mmol/L.

The figures were similar in the SCH cohort.

Erectile Dysfunction

16% of the men in the sample were questioned regarding sexual dysfunction. Of these, 50% had erectile dysfunction.

In the SCH cohort erectile dysfunction was not discussed with any of the men.

Lifestyle Factors

The body mass index (BMI) was recorded for 67% of the sample; of those recorded 6% were underweight (BMI <20), 11% were within the normal range (20-25), 37% were overweight (25.1-30) and 46% were obese (>30). We were unable to compare to the SCH cohort as BMI is only calculated on the database following the visit.

Physical activity – Physical activity was discussed with 72% of the shared care sample and with 50% of the SCH cohort.

Smoking status was assessed for 83% of the shared care sample; 67% were non-smokers and 16% were smokers. There was no record of smoking status for 17% of the shared care sample and 5% of the SCH cohort.

Structured Group Education

53% were recorded as not having attended any form of group education and 13% had no record as to their attendance at group education. 14% of the sample had attended X-PERT, 10% had attended CODE, 6% hospital education and 5% were recorded as 'other'.

Community Dietitian Review

70% of patients were reviewed by the community dietitian in 2010; 43% were seen on one occasion, 24% were seen twice, 3% were seen 3 times during that year.

Diabetes Nurse Specialist Review

71% of patients were reviewed by the DNS in 2010; 37% were seen on one occasion, 28% were seen twice, 6% were seen 3 times during that year.

St Vincent's Hospital Group
Clinical Audit Report Template 2012

Conclusions:	<p>1. The majority of annual reviews take place in the hospital.</p> <ul style="list-style-type: none"> • 33% did not have an annual review in 2010. Of those who did have an annual review, 27% had no report on file in primary care. • <u>Communication of findings to the primary care team is suboptimal</u> <ul style="list-style-type: none"> - 87% recorded as ACR not done or unknown in the shared care cohort compared to 15% not done or unknown in the SCH cohort - 81% retinal screening result not done or unknown in the shared care cohort compared to 30% not done or unknown in the SCH cohort <p>2. Micro- and macro- vascular disease prevention findings in shared care</p> <ul style="list-style-type: none"> • Glycaemic control is overall very good; 77% were < 7.5% • BP control was also good, 80% <140 SBP and 73% <80 DBP The audit did not distinguish between those patients who should have a lower systolic BP target • Adherence to lipid targets could be improved, 41%, 42-60% and 34% were out of target for LDL, HDL and TGL respectively. Similarly, the audit did not sub-analyse those who should have lower LDL targets. <p>3. <u>Erectile dysfunction is highly prevalent in this cohort but is not being addressed at annual review in the majority of men.</u></p> <p>4. Lifestyle factors</p> <ul style="list-style-type: none"> • 2/3 had BMI recorded. Of those, 83% were overweight or obese • Physical activity discussion is taking place more often in primary care compared to hospital review (72% vs 50%). <p>5. Structured Group Education</p> <ul style="list-style-type: none"> • Record of SGE is suboptimal – 66% did not attend or it was unknown
Recommendation:	<p>Recommendations for Practice</p> <p>1. Communication between primary and secondary care needs to be significantly improved</p>

- Long term recommendation to improve communication: change from the current Tymax database to a web-based database.
- Short-term recommendation to improve communication: develop a Diabetes Passport to include records of the following at each visit: HbA1c, weight/BMI, physical activity (steps/day or mins/week), blood pressure, lipids, medications and AR with results i.e. retinal screen, lower limb assessment, ACR, erectile dysfunction.
- The urine albumin-creatinine ratio should be performed before the outpatients visit, at the time of blood testing, so the result will be available on the day of the visit.

2. The hospital and primary care visits should have a proforma that includes prompts for recording of

- Weight change since last visit and current BMI
- Current smoking status and alcohol intake (units/week)
- Daily exercise amount (steps/day or mins/week)
- Lifestyle advice given
- Erectile dysfunction Y/N

Recommendations for Future Audit

1. A further audit should be carried out in 2013, to assess whether improvements can be observed and if positive changes have been implemented.

2. The next audit tool should incorporate the following changes:

IFCC HbA1c units, use of different hypoglycaemic agents (mono and combined therapy), use of ACE I or other antihypertensive agents, use of multiple anti-hypertensive agents, a record of the patient's CVD score or presence/absence of complications to assess if lower BP and LDL targets are being met, alcohol record in units/week, quantification of physical activity (steps/day or mins/week), weight change between visits.