

ASR Beds, Services and Capacity Working Group

DRAFT

REPORT of the CLINICAL MODEL SUB
GROUP for Diabetes

June 2005

EXECUTIVE SUMMARY

The Glasgow Diabetes MCN is committed to the development of a strategy for improving diabetes for patients care across Glasgow.

The implementation of the diabetes register in Glasgow means that we can now accurately predict how many patients with diabetes there are. Currently there are 30,000 patients with Diabetes. The numbers of patients with Type 1 and Type 2 respectively are 4,163 and 24,965. This is a prevalence of 3.4%.

Diabetes is a chronic disease with a number of associated complications, which have a considerable impact on healthcare services. The life expectancy of patients who develop diabetes is reduced by 8-10 years. According to SIGN 55 20-25% of patients who have end stage renal failure will have diabetes. The most common reason for a patient with diabetes to be admitted is with foot care issues and a person with diabetes has a 15-20 fold increased risk of amputation. The main cause of death is from vascular disease leading to coronary heart disease and stroke.

Young people with diabetes and maternity services require a multidisciplinary approach to treatment.

The planning of outpatient services for patients with diabetes is currently ongoing, however it is envisaged that services will be consolidated. It was difficult to predict the number of inpatient beds required as diabetes is seldom coded as reason for admission. However there is an increasing prevalence within Glasgow and as Diabetes is a progressive disease, where complications are inevitable, there will be increased pressure within secondary care in the future.

The Diabetes MCN for Glasgow has currently a number of working groups, which are taking forward pieces of work to improve the patient pathway for people with diabetes. These are glycaemic control, service redesign for Allied Health Professionals, defining the role of the Diabetes Specialist Nurse, Standardising Blood glucose monitoring, Improving education for staff working within diabetes centres and further development of Information Technology.

Clinical Models Sub-Group Report – June 2005

Current Service Profile

1.1 Activity

In Glasgow there are currently 30, 000 patients with diabetes. This corresponds to a prevalence rate of 3.4%. The numbers of patients with Type 1 and Type 2 diabetes respectively are 4,163 and 24, 965. In 2000 there were 2,212 newly diagnosed type 2 patients compared to 3,450 in 2004.

Patients are currently reviewed annually within 5 secondary care clinics or cared for as part of the Local Enhanced Service in General Practice. Referral criteria from General Practice to Acute sites have been agreed by the Local Medical Committee.

1.2 Ethnicity

In populations of South Asian Origin the risk of developing diabetes is at least 4 times greater than the general population and is associated with a higher prevalence of proteinuria and renal disease. It is estimated that the prevalence of diabetes in communities from the South Asia over 40 years of age is 20% and 17% in communities of Afro Caribbean Origin. Glasgow has a substantial multicultural mix which is 5.5% of the total population.

It is widely recognised that diabetes is associated with an increased mortality. In people with type 2 diabetes the overall risk of death from any cause is approximately 42% greater than in the general population. The most common causes of death are ischaemic heart disease, cerebrovascular disease and chronic renal disease.

1.3 Service Configuration – Beddays

It has not been possible to gather this information. Diabetes is rarely coded as reason for admission. It is recognised that complications which occur as a result of having diabetes are a common reason for admissions for example ischemic heart disease, stroke, foot wound care. There is close collaboration between departments across secondary care to ensure that there is effective clinical patient management.

1.4 Tertiary Activity / Cross Boundary Flow

Secondary Care sites across Glasgow are sent patients with complex issues for tertiary opinion from all surrounding Health Boards. These issues tend to be severe complications which will require admission. In addition historically some General Practitioners outside Glasgow send in patients to Glasgow e.g. Cumbernauld. Unfortunately this is observational information as diabetes has been poorly coded on admission.

1.5 Specialised services

Retinal Screening

Diabetic eye disease is one of the most common complications of diabetes and is present in most newly diagnosed patients. It is the most common cause of blindness in people of working age. The Health Technology Board for Scotland has recommended that people with diabetes should have annual eye screening based on non mydriatic

digital cameras, with mydriasis and slit lamps, where necessary. These standards were further developed by NHS Quality Improvement Scotland (QIS).

Retinal screening from 1st April 2006 will become part of a NHS National Screening Programme for Diabetic Retinopathy. The planning of a comprehensive retinal screening service within Glasgow is at an advanced stage and the service has implemented 70% of its required capacity, with the Glasgow team working towards full QIS compliance by April 2007.

Currently the service has no waiting times and has seen 12000 of the 30,000 patients with diabetes across Glasgow

Insulin Pumps

It is proposed that there will be 2 specialist centres established within Glasgow for the management of pump therapy.

All patients who currently receive pump therapy should have their pumps and consumables paid for by NHS Glasgow. This will incur £17,520 in 2005/6 and a recurring costs of £15,120 thereafter.

Renal/ Diabetes

Diabetic Nephropathy is currently the commonest single cause of end stage renal failure in Scotland. Approximately 18% of end stage renal failure is currently attributable to diabetes.

There is currently only one joint diabetic / renal clinic in Glasgow at the Royal Infirmary.

Many patients who attend renal units in Glasgow continue to attend a diabetic clinic but this is not always the case. In a substantial number of cases all management (including diabetes management) is devoted to the renal unit, which they attend. There is a need to improve effective liaison between renal and diabetes service and have an equitable service for these patients across Glasgow.

There is a need for day-to-day input from the diabetes services in terms of glycaemic control and management of diabetic complications.

There is a requirement to delay or prevent progression of nephropathy. Annual screening for microalbuminuria is part of routine diabetes care. The MCN for diabetes have produced guidelines for General Practice on the pathway of care.

Pregnancy

Discussion is currently ongoing on the development of 3 specialised multidisciplinary care centres for the antenatal care of a patient with diabetes and gestational diabetes.

It is important to note that again secondary care sites within Glasgow often provide a service for complex diabetes pregnancies from surrounding health boards.

2 Recent Service Changes and Developments

Consolidation of Diabetes Centres within Secondary Care in ACAD

There is ongoing implementation of SCI DC software across Diabetes Centres

Discussions ongoing

3. Current Performance and Benchmarking

Unable to effectively measure and benchmark current performance. However the implementation of SCI DC clinical software across secondary care sites will enable information to be gathered in the future which will facilitate this.

4. Waiting Time Targets Inpatients & Outpatients for 2007, 2010 and beyond

Newly diagnosed patients with type2 diabetes are seen initially within general practice. Newly diagnosed patients with type 1 diabetes will also been seen within secondary care at the first available appointment. Any patient with complications who is referred from General practice to Secondary Care will be prioritised.

The majority of patients seen at the diabetes outpatient clinics are routine annual reviews.

5. Care Pathways

The Primary and Secondary Care Interface group has developed care pathways which demonstrate shared care from General practice to Acute services. Community Diabetes Nurses work closely with General Practitioners and Lead Consultants to ensure that the patient journey is as seamless as possible.

Work completed includes referral guidance for referral from community to secondary care and guidance on screening for microalbuminurea. (See appendices)

Work is ongoing on the development of a glycaemia control pathway, wound care pathway and blood glucose monitoring guidance, insulin referral pathway, and service redesign for allied health professionals.

The retinal screening service is working closely with ophthalmology, general practice and secondary care to ensure that there is effective communication on any changes, which impact on a patient's clinical care.

6. Reasons for Site Configuration Proposals

The sites of the outpatient centres for patients with diabetes is still under discussion

6.1 Clinical Support Service Requirements

To provide an effective service for the patient with diabetes, support is required from the following.

- Labs
- AHP- Podiatry and Dietetics
- Weight Management Service

7. Final Outcome/Recommendations

The Glasgow Diabetes MCN is committed to the development of a strategy for the next 5 years to improve the care for the patient with diabetes. The development of a Diabetes Strategy is an important function set out in the Scottish Diabetes Framework.

The strategy highlights a number of pieces of work which are intended to improve patient care for the person with diabetes across primary and secondary care. They are:

- Glycaemia control pathway.
- Service redesign and prioritisation for Dietetics and Podiatry.
- Defining the role of the Diabetes Specialist Nurse.
- Standardisation of the use of blood glucose monitoring.
- Improving Staff knowledge on Diabetes care.

- Communication between IT systems for Diabetes in the community and secondary care.
- Transitional services for adolescents with diabetes
- Establishment of a retinal screening service

These pieces of work have also taken into account the consolidation of outpatient services within Glasgow for the patient with Diabetes. Discussions are ongoing on this; however, it is worth noting that currently staff may cover outpatients and inpatients within one site. Basing staff within the ACAD will remove that flexibility and there will be a need to review resources to ensure patient care is not compromised.

APPENDICES

1. Referral pathway across primary and secondary care.
2. Role of the Diabetes Specialist Nurse
3. Microalbuminuria guidelines

Referral of Patients between Primary and Secondary Care Diabetes Clinics

This guidance was produced under the auspices of the Primary Care/ Secondary Care Interface Group of the GGHB Diabetes Managed Clinical Network (MCN). It has been approved both by the Diabetes MCN Steering Group and by the Glasgow LMC. The aim of the guidance is to help practitioners with respect to determining under what circumstances patients with (Type 2) diabetes should be referred from Primary to Secondary Care and vice versa. It is recognised that this guidance is to cover “usual” situations and that the circumstances of some individual patients may mean that different arrangements might pertain. This should be determined on a case-by-case” basis

The following patients should be looked after primarily in Secondary Care Diabetes clinics	Who should not be discharged from Secondary to Primary Care?
<p>Patients with Type 1 diabetes (rapid onset, weight loss, or ketonuria)</p> <p>Children and young people (aged < 12 years, 9 months to RHSC Yorkhill, age < 20 years to adult services)</p> <p>Any diabetic patient who is pregnant or is considering pregnancy</p> <p>Uncertain diagnosis or classification e.g. maturity onset diabetes in the young (MODY), secondary diabetes, or onset of diabetes at age < 40 years</p> <p>Patients with Type 2 diabetes in whom there is doubt about whether they may need insulin treatment in the near future (see glycaemia guideline)</p> <p>Patients with Type 2 diabetes who clearly require insulin treatment</p> <p>Foot ulceration or other serious foot problems (to foot clinic)</p> <p>Painful neuropathy / amyotrophy or other neurological complication not responding to simple treatment</p> <p>Diabetic nephropathy i.e. proteinuria : albumin > 300 mg/24 hours, or spot albumin > 300 mg/L, or raised creatinine > 150 umol/l (see albuminuria guideline)</p> <p>Uncontrolled blood pressure e.g. BP > 160 mmHg/100 mmHg on three or more hypotensive agents (see GGNHS guideline)</p> <p>Patients with more than one episode of severe hypoglycaemia (i.e. requiring third party assistance)</p>	<p>Patients with Type 1 diabetes</p> <p>Patients with secondary diabetes</p> <p>Patients with deteriorating control where insulin therapy may have to be considered in the next year</p> <p>Patients started on insulin at the time of acute myocardial infarction</p> <p>Patients with recurrent severe hypoglycaemia</p> <p>Patients with diabetic nephropathy as defined above</p> <p>Patients with continuing painful neuropathy</p> <p>Patients with active foot ulceration</p>

Referral of Patients between Primary and Secondary Care Diabetes Clinics

Who should be referred to Secondary Care as an emergency for possible acute admission?

Where possible these patients should be discussed with the local Diabetes Centre / Diabetes Team as some of these patients may be managed as an outpatient and will not require an acute admission

New onset Type 1 diabetes (rapid onset, weight loss, ketonuria)

A vomiting illness, especially if blood glucose is increasing or ketonuria is present

Any intercurrent illness if blood glucose is increasing despite increase in treatment, or ketonuria is present

Severe hypoglycaemia with seizures, continuing neurological or cognitive impairment

Critical ischaemia of legs (to vascular surgeons) Sudden loss of vision (to ophthalmology)

Who should be transferred from Secondary care to Primary Care (At Present)?

Patients with Type 2 diabetes on diet or a single oral hypoglycaemic agent (see glycaemia guidelines)

Patients with Type 2 diabetes on more than one agent who are stabilised and not likely to need insulin within the next 2 years (see glycaemia guidelines)

Patients who indicate a preference for primary care unless there are reasons (as above) for secondary care attendance

Who could be transferred from Secondary care to Primary Care (at a later stage)?

This is the subject of ongoing discussion.

Patients who are housebound / residents of nursing or residential homes

Patients with Type 2 diabetes who are stabilised on insulin therapy– once initiation and adjustment of insulin therapy by community based diabetes nurse specialists is established (may be well controlled or poorly controlled).

The Role of the Primary Care Diabetes Specialist Nurse

The primary care Diabetes Specialist Nurses provide clinical expertise, education, information and support to patients, carers and staff throughout Glasgow, to improve the standard of care and empower those affected by diabetes to achieve good health and enhance their quality of life.

CLINICAL

To provide a service to people with diabetes and their carers who do not attend secondary care. The DSN will manage a transient workload whilst providing specialist intervention and will discharge patients from her/his care when appropriate.

The DSN will provide advice and support to Primary Care staff in the management of diabetes.

The DSN will, where appropriate, provide clinical leadership, support and supervision to junior DSN colleagues as skill mix posts are introduced.

The DSN will

- Assess patients who may require insulin therapy.
- Initiate insulin in Type 2 patients where required.
- Review and adjust insulin dose, mix or regimen.
- Optimise control in patients with Hyperglycaemia.
- Review patients with recurrent hypoglycaemia. (severe episodes refer secondary care)
- Assess and review compliance/non compliance, problems or side effects with oral therapy.
- Review patients who have concurrent illness affecting glucose control. (i.e. steroid therapy).
- Assess and review defaulters from secondary care or those unable to attend secondary care. (Where appropriate).
- Manage a quality controlled service for blood glucose monitoring and meter provision.

EDUCATION

To plan and deliver standardised education content/packages for **Patients**

- Newly diagnosed Type 2.
- Continuing education for Type 2 patients.
- Type 2 patients transferring to insulin.

Staff

- Lead in the design, implementation, delivery and evaluation of post accreditation courses for appropriate staff.
- Lead in the provision of short study education for District Nurses, Health Visitors, Practice Nurses, GP's, Student nurses, Nursing home staff and professional carers.
- Provide mentorship to health care professionals.
- Be integral in delivery of diabetes accredited training programs to staff.

FACILITATION

To support practices

- provide Annual review clinics and care for Type 2 patients in line with GMS contract.
- develop the skills necessary to provide a diabetes service as per Glasgow guidelines and protocols.
- by acting as a specialist Diabetes resource.
- develop ongoing clinical role of practice staff through education and collaborative working.
- in the transfer of type 2 patients to insulin by Practice Nurses, where appropriate.
- by keeping them informed of MCN initiatives.

LIAISON

- Promote effective communication throughout the journey of care of the patient with diabetes.
- Liaise with other health care professionals to promote awareness of quality diabetes care and services.
- Raise awareness of diabetes in the community.
- Work closely with public health practitioners to develop strategies for health improvement and/or prevention of illness.
- Establish working partnerships with specific groups and agencies.

PROFESSIONAL

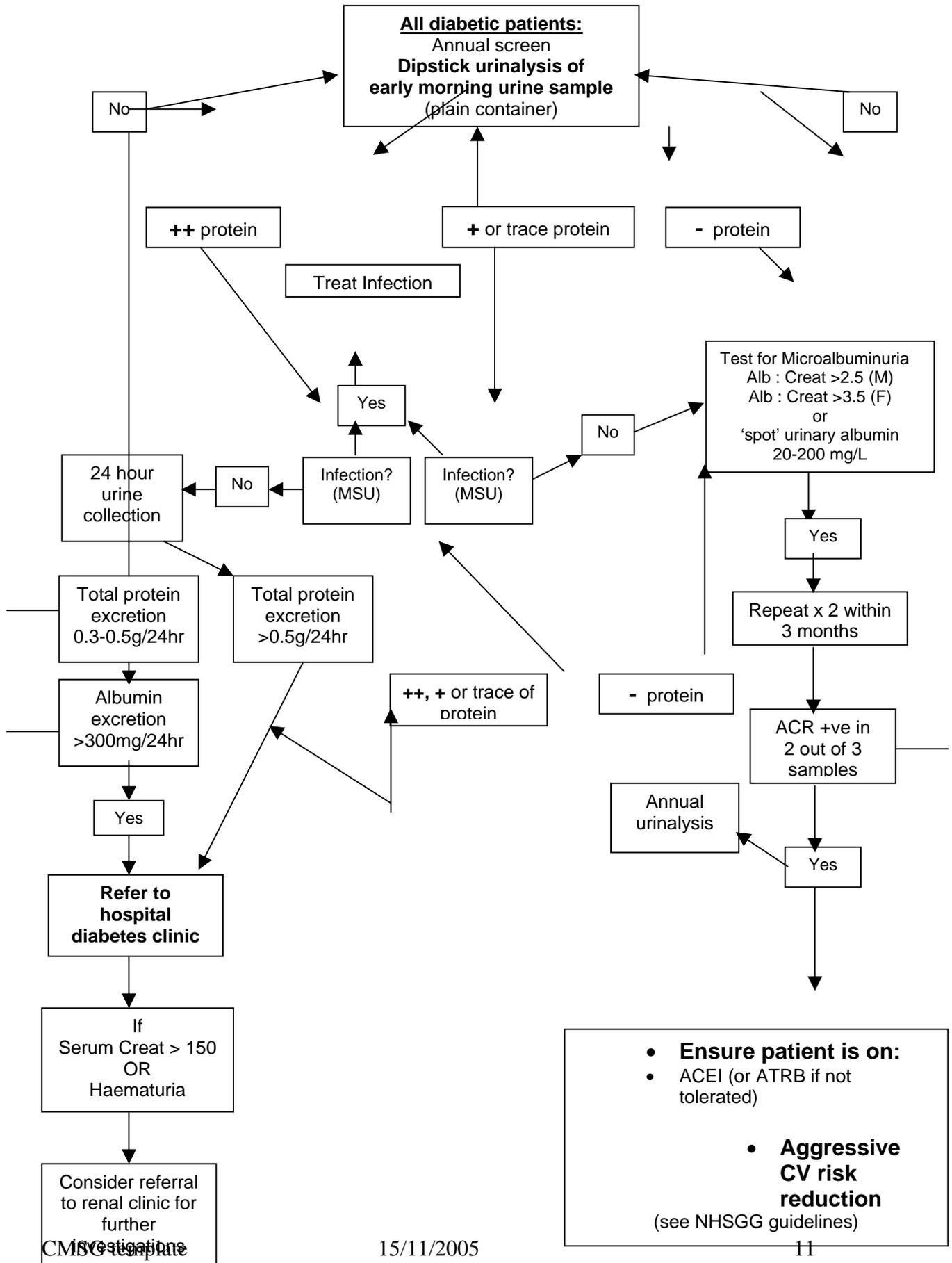
To use Glasgow Primary Care DSN forum to

- provide support to new and existing members.
- standardise diabetes care across Glasgow in line with best practice.
- facilitate ongoing DSN education.
- establish Clinical Supervision of the DSN group.
- For the Development of policies, protocols and guidelines in line with SIGN and Scottish Diabetes Framework.
- influence policy and decision by representation of Primary Care DSN on MCN and appropriate working groups and forums both local and national.
- ensure Clinical Effectiveness by reflecting, evaluating and auditing service provision within a framework of evidence based practice.
- develop and maintain a higher level of practice by ensuring continual professional development.

RESEARCH

- Lead in local research and audit and participate in research nationally.
- Evaluate and audit the DSN service provision within each CHP and throughout Glasgow.

NHS GG GUIDELINES FOR THE DETECTION AND MANAGEMENT OF MICROALBUMINURIA AND PROTEINURIA IN DIABETES



- **Ensure patient is on:**
- ACEI (or ATRB if not tolerated)
- **Aggressive CV risk reduction**
(see NHS GG guidelines)

