Education section

The Roles of the Diabetic Nurse Specialist

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Leicester is a city in the middle England with a population of approximately a quarter of a million. The hospital, however, drains a population from the country of Leicestershire, which totals nearly one million. It is an industrial city with light engineering and textiles in particular. About one third of its population is Asian, i.e. either they or their forefathers are from the subcontinent of India (1). Many arrived in 1970 from East Africa. Insulin dependent diabetes has been thought to be rare in Asians, but non insulin dependent diabetes in any migrant Asian group is at least twice as common, the incidence going up with age (2).

The National Health Service was set up in 1948 and since that time all patients are their own family doctor (General Practitioner ,G.P.) whom they chose and who will have a surgery local to their home and hold daily, sometimes twice daily clinics. If a patient has problem he will make an appointment to see his GP, or if it is urgent the GP may visit the patient at home. A patient may also go to the Casualty department of the local hospital. If the GP feels that the patient needs specialist advice he will refer him to a consultant at the local hospital and he will be seen as an Outpatient at the hospital. If it is an emergency the GP will get the patient admitted to the hospital. When discharged from the hospital patient is discharged back to his GP's care. The GP can call upon the District Nursing Service to visit the patient at home, or they will hold clinics for dressing of wounds etc. Therefore the patient can only be referred to the hospital by the GP unless he present himself to Casualty as an emergency, when he may be admitted to the hospital, or treated and then discharged.

Leicester was the first to introduce the concept of the diabetic specialist nurse and this was back in1950 (3). The diabetes specialist at the time, Dr. Joan Walker had very few hospital beds in which to treat her patients and so developed a community service. The idea was to use nurses rather than doctors to oversee the day to day management of insulin dependent diabetes. These nurses were State Registered Nurses who had undergone three years general training , then a further year at least studying midwifery and completed a two year health visitor course. They were then attached to the hospital diabetic clinic to be trained in diabetes and its many aspects. Now-a-days , it is not always necessary for this prolonged training although it is still applied in Leicester. Other regions use a State Registered Nurse who has usually attained Sister status, and then after at least one year in post will send her on a course (often residential) which if successful will lead to a Certificate in Diabetes.

From 1950 children who developed diabetes in Leicestershire were not routinely admitted to hospital and when a Family Doctor has diagnosed a child as diabetic a physician from the hospital who has a special interest in diabetes will visit the child in his own home and start the insulin treatment (if possible encouraging the child to give the first injection himself) and give advice on diet and the need to either test their urine or blood. The rationale behind this is that it is pointless to 'stabilise' the child in the false environment of hospital, much better for him to be in his usual routine, i.e. at home. Also the child may be very anxious about visiting a hospital and will feel more secure at home. The diabetic health visitor will then visit the child at home, and try to sort out individual problems and answer any queries. These may vary between how to change the insulin dose to cope with illness, to injection techniques or diet. The nurse then makes sure the parents know who to contract if there are problems and leaves them her telephone number. She may also visit the child's school to ensure that the teachers know how to cope with any problems. One of her most important tasks is to establish a rapport with the child and his parents so that problems can be sorted out early and in some cases prevented. The British Diabetic association has produced various educational aids, posters, leaflets and videos as well as family teaching weekends, and residential camps with doctors and nurses in attendance. In Leicester booklets and videos have been produced in the five main languages of the Indian subcontinent to help in the education of our Asian patients.

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Within Leicestershire there are about a thousand insulin dependent diabetics, but there are also a further three thousand diabetics who take insulin – either because tablet treatment has failed or in whom there may be good reason to keep their diabetic control very good, for instance in pregnancy. Some woman develop gestational diabetes – that is they develop diabetes whilst they are pregnant, but their glucose tolerance reverts to normal after delivery. About 25% of these woman will go on and develop true diabetes. The Asian gestational diabetic is twice as common as the European Gestational Diabetic (4). Another reason for tight control may be in people who develop painful neuropathy, that is diabetics who have pains in their legs and feet and lose sensation in their lower limbs which can lead to ulcers and gangrene. These people may require the assistance of the diabetic health visitor, leaving very little time for the diabetics who take tablets or who are controlled on diet.

These patients will be seen at the hospital clinic, where there is a health visitor in attendance, or by their GP. Some GPs in Leicester have established diabetic 'mini clinics' where a practice nurse, who is employed directly by the GP will see the patients in conjuction with the GP. These patients will only be seen at the hospital diabetic clinic if the GP is worried about the management of the patient or if they have developed as specific complication of diabetes. A protocol for the Practice nurse has been developed as described below.

PROTOCOL FOR PRACTICE NURSE AT DIABETIC CLINICS

Height- for new patients.

Weight-ask about any dietary problems as this is being done and show patient where they are and where they should be on ideal Weight Graph.

Test Urine-demonstrate if necessary and explain that the test is for proteinuria as well as sugar, ketones and blood to emphasise the need to bring specimen to clinic. Show an interest in their Urine Testing Record Book or you will find testing is not done regularly. Arrange mid-stream urine collection if appropriate.

Blood Pressure and Pulse- have couch available if lying and standing BP is necessary.

Blood Test-blood sugar each visit. Urea and electrolytes, creatinine yearly; HbAlc as necessary (think about referring patient to Hospital Clinic if greater than 11%)

Check Injection Sites- if applicable

Examine Feet-check pulses, giving general advice whilst examining. Arrange chiropody if necessary. Examine shoes and socks/stockings to check on suitability and size.

Visual Acuities- with pinhole if necessary. Check that visits to Opticians are regular. Have Colour Chart available Macular Oedema is suspected (eg. Vision worse on Pinhole)

Dilate Pupils- yearly, but do check that three is no history of glaucoma before doing so. If they are being followed up in Eye Clinic, dilation may not be necessary. Warn patients not to drive and to bring sunglasses if a bright day.

Make Appointment-ensure that patient knows how to obtain advice if there is a problem before their next appointment. In case of new patients, make sure they know how to obtain their Prescription Exemption form, and that they know to carry card stating they are diabetic and their current treatment.

DNAs (Did Not Attend) Difference surgeries will have different methods for coping with this. A quick look in the notes may provide an explanation and suggest an appropriate course of action. A short hand written note is often effective, e.g. "I am sorry you were unable to attend the clinic today. I have made another appointment for you on….. If this is inconvenient please contact… to arrange another time".

You do not want the patient to feel embarrassed about forgetting an appointment because they may not make another until problems are occurring: prevention is still better than cure!

Draw the attention of Doctor to any particular problems that has been brought up. Patients often think that if they have reported a problem to the Nurse they have no need to mention it again, particularly if it is embrassing e.g. vaginitis or impotence. Have available leaflets on foot care, diet, exercise etc. and think about having a library of books and videos that can be loaned out.

The patient who is seen at these mini clinics will only be seen at the hospital diabetic clinic if the GP is worried about the management of the patient or if they have developed a specific complication

of diabetes such as retinopathy, neuropathy and nephropathy. The treatment for these specific complications may result in laser therapy to prevent blindness; dialysis (haemo or peritoneal) or transplant to treat kidney failure; bed rest; Scotchcast boot, antibiotics or surgical intervention for foot ulcers and gangrene. All of these treatments are expensive so the emphasis should be put on prevention.

The diabetic health visitor must be aware of these complications and alert the doctor's attention to them at an early stage so that appropriate action can be taken. The role of the diabetic health visitor then is often one of liaison between the patient and the hospital service with the aim of keeping as many patients within the community and not admitting them to hospital with the consequent disruption of family life and work patterns.

In Liecestershire the diabetologists also hold peripheral clinics in the small towns. These will involve the consultant visiting this clinic once or twice a month and holding a diabetic clinic either in a local hospital or a health center. The diabetic health visitor who covers that particular area will attend such a clinic and may also arrange group education sessions to cover any areas that the patients may find useful.

Other regions in the UK use their Diabetic Specialist nurses indifferent ways . There is a National course on diabetes which is run in a few centers and nurses will obtain a certificate if they pass this course. Most recently appointed specialist nurses will have undertaken such a course, although they have to have been in post for at least one year before they are accepted on the course and they have to persuade their health authority to sponsor them which is not always an easy matter! Some nurses with a great deal of experience in this field will have been in post before the courses were thought of.

In order to show the different ways that diabetic specialist nurses are used in different settings I will briefly give you a job description. My work is different from the other diabetic health visitors in Leicestershire in that I do not visit patients at home and most of my work is research orientated and involves nursing care of patients and volunteers in a research programme. I also run an Outpaites Diabetic Clinic and consider my duties to be the same as described above in the protocol for the practice nurse. In addition, eye screening clinics for people with diabetes have been set up and this requires patient care – in explanation of the procedures involved and dilation of pupils and after care. My other duties may involve organizing education sessions for nurses, chiropodists and dietitians both at a regional and local level.

As you can see there are many ways that a nurse in that UK can assist in the education of the patient and his family as well as other health care professionals and each district is using them in different ways. Some centres, for example lpswich have set up purpose built Education Units and although situated in the hospital grounds are separate from the hospital and these have been very successful. Others, for example Northampton have established 24 hour telephone help lines which offers psychological help, whilst others offer practical advice by telephone. Leicester's complication rate is half that of other parts of the UK (5)(6) and this is thought to be due to the use of diabetic specialist nurses set up in 1950, with the emphasis on prevention of complication by education and early intervention. It also has the advantage of costing less per head of population, with a lower admission rate and therefore less cost.

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