



**IMPROVING DIABETES FOR RESIDENTS IN CARE HOMES
IN A RURAL SETTING
– AN ACTION RESEARCH PROJECT**

DiARCH Powys – Diabetes Action Research in Care Homes Powys

Executive Summary

**Sally Ann Jones, Jenny Jarvis, Patricia Powell
Diabetes Special Nurses, Powys tHB**

Jenny Deaville – Research Manager, IRH

INTRODUCTION

Approximately 127000 people in Wales have diagnosed diabetes (Diabetes UK, 2006) and it is thought that tens of thousands may also be as yet undiagnosed (NSF Diabetes for Wales, 2003). The prevalence of diabetes in the elderly is around 10% and managing and diagnosing diabetes in the elderly presents many challenges as this group is highly vulnerable and may be ill-equipped to communicate needs or problems. They may suffer multiple conditions/morbidities and may receive little organised care (Tattersall and Page, 1998). Diabetes UK have identified that elderly people with diabetes are at serious risk in care homes through a lack of adequate care (Diabetes UK, 2002). Anecdotal evidence noted by the Diabetes Specialist Nurses in Powys has identified a real need for work with staff and residents in rural care homes to improve diabetes care. Care homes in rural settings such as Powys are at a distance from both secondary care and specialist knowledge and therefore good diabetes care is essential.

Aim

The aim of the project was to work with staff and residents (using an action research approach) to develop a set of methods (which is appropriate in a rural setting) to improve diabetes care for residents in residential and nursing homes.

STAGES IN THE ACTION RESEARCH CYCLE

Three Care Homes in Powys were invited to participate based on geography (a Care home in north, mid and south Powys)¹ and also because of size (the prevalence of diabetes in the elderly is approximately 10% so Care homes with over 50 residents were selected). NHS ethical approval and research governance approval were obtained prior to starting work with the Care Homes.

This project followed an action research cycle. The stages in this project were as follows:

PLAN - Assess current practice, knowledge and attitudes of care home staff and residents

Phase 1 focused on assessing the current situation in each Care Home. This started with a knowledge questionnaire to all staff to identify current levels of knowledge and confidence in diabetes care. This was followed by focus groups with staff in each home to identify opportunities and barriers to improving diabetes care in the home. Semi-structured interviews were also undertaken with residents with diabetes to gather their perceptions on the current care they receive for their diabetes. This information was fed back to the staff at a staff meeting in each Care home.

ACT - Set up Diabetes working groups and implement actions

In Phase 2 each of the Care Homes set up a Diabetes Working Group with representatives from each level of staff in the Home. The DSNs worked with the Diabetes Working Group in each home to decide on actions to improve diabetes care and implement the actions. The groups met to discuss progress and review any additional changes that may be necessary.

COLLECT - Collect data on changes in practice

Phase 3 involved evaluating the changes made in nursing practice and diabetes care. The main measures of change were through minutes of the Diabetes Working Group and progress against the action plan as noted by the Diabetes Working Group. The impact of the action plan on staff

¹ Only one Diabetes Working Group meeting was held in the Nursing Home as the DSN covering this home was on long term leave from work during the project and the project team were unable to cover the workload. The Nursing home was involved in phase 1 but was withdrawn from subsequent phases in the project.

knowledge was identified through a repeat of the knowledge questionnaire from cycle 1. The impact on patient care was identified through the Diabetes Specialist Nurses reviewing any changes in the routine HbA1C readings of residents with diabetes.

REFLECT - Reflecting on the process

The outcomes from the action research process were discussed with each of the Diabetes Working Groups and a set of recommendations for improving diabetes care in Care homes was developed and shared with the Diabetes Working Groups for their input. The project team also reflected on their own learning experiences and outcomes from being part of this project and this is detailed below.

MAIN FINDINGS - EMERGING ISSUES FOR ACTION IN THE HOMES

The following issues emerged from stage 1 – Planning.

Annual reviews - A structured approach to Annual reviews is important for people with diabetes (NSF for diabetes) and this is not always happening in the care homes. This is an area that needed to be developed across all three care homes.

Feet checking - Feet are checked across the three care homes, but it varies as to who does this (the carer, chiroprapist, GP, nursing staff). The caring staff in particular felt the need for education as to signs and symptoms to look for when checking feet.

Eye photography - There did not appear to be a regular system for residents receiving eye checks in any of the homes. All digital retinal screening is undertaken by Diabetic Retinal Screening Service for Wales (DRSSW). However, it may be that a resident has been deemed unable to attend for screening or recommended treatment by the GP.

Diet - There was variation across the three homes in terms of knowledge, confidence and practice in relation to the appropriate diet for residents with diabetes. Current advice is that a regular healthy diet is appropriate for people with diabetes and it is unnecessary to provide special diabetic foods. The amount of sugar in the diet should be moderate for all residents and this is also appropriate for residents with diabetes. An example of good practice in one care home is that low sugar jam is used for all residents regardless of whether they have diabetes or not. In this same care home candarel is used as a substitute for sugar in homemade cakes otherwise the diet is the same as for all residents. In the other two care homes however there was more uncertainty about the dietary recommendations for people with diabetes and diabetic puddings are still being provided. In addition staff feel that residents are being left out when birthday cakes are being provided and sometimes allow residents with diabetes to have a small slice but do not feel confident that this is acceptable.

Timing of blood glucose monitoring - For residents on tablets blood glucose monitoring is done on a routine basis at the same time each week. This identifies the need for education as blood glucose monitoring needs to be undertaken according to an individual need.

Communication with GPs and other health care professionals - The lack of structured care for residents with diabetes in particular with relation to the Annual Reviews highlighted concerns around communication with GPs and other health professionals. In the Residential Care home this was highlighted during phase 1 during an interview with a resident. During interview the resident was very vague about diabetes and seemed unwell. The DSN checked the blood glucose which appeared to be normal. On checking with the GP it appeared that although the Care Home appeared to think that this resident was diabetic, the individual has not in fact been diagnosed with diabetes.

Development of a link nurse - At present none of the care homes have a lead nurse or link nurse for diabetes. All care homes were interested in developing a link nurse role but there was concern over taking time out and resources to attend meetings.

Knowledge - Staff in all the care homes were keen to increase their knowledge. There is a higher degree of knowledge and confidence about diabetes amongst nursing staff in comparison to caring staff as might be expected, however all staff expressed an interest in education including kitchen staff.

Confidence - Closely tied with knowledge was the issue of confidence. A concern about lack of knowledge impacts on confidence, and staff in the dual care home and the residential care home (but not the nursing home) both highlighted a lack of confidence around diet and foot checking.

MAIN FINDINGS - ACTIONS

At each meeting a set of actions was agreed to be undertaken by the subsequent meeting. A summary of these actions and progress from the Residential and Dual Care homes is outlined below:

Treating hypoglycaemia –Ensuring appropriate treatment for hypoglycaemia (lucozade,dextrose,glucoge) is available for the treatment of anyone who is hypoglycaemic. In the nursing homes this was already available. In the Residential Care Home at the time of writing this report one resident keeps a supply of their own lucozade in their own room. The Group in the Residential Care home agreed to monitor this for each new resident.

Diet – all care homes now provide a healthy normal diet for residents with diabetes and the Residential Care staff in particular are now confident that they can allow residents with diabetes to have a small piece of regular cake or pudding. In both the Residential and Dual Care homes the kitchen's reported that it was easier now that they do not have to produce two types of pudding.

Training – the care homes were all keen to increase their general knowledge about diabetes and therefore training sessions were organised in both the Residential Care Home (9 attended) and the Dual Care Home (10 attended). The training was provided by the DSN and a Dietician.

Feet checking – in the Dual Care Home it was noted that newer staff are less aware of checking feet for people with diabetes. It was agreed that more senior staff would demonstrate this and this was taken forward by the Team Leader in the care home. Information sheets were also sent to the homes and these were disseminated and displayed on the notice boards. The Residential Care Home was updated with the phone number of the new podiatry service.

Annual Reviews – In all Care Homes the responsibility for Annual Reviews is with the General Practice and District Nurses. The DSNs felt this was their responsibility to follow this up on behalf of both homes. Both practices involved agreed that routine blood test results would be made available to the care home staff. Staff are now more aware that they can access blood results from the GP practices and District Nurses.

Communication – Both homes decided to put up a notice board to share information amongst staff. Information from the project was regularly included in the notice board, and staff intended to continue to use the notice board to share information on diabetes and other health issues.

Link nurse – the link nurse role was further discussed in the Dual and Residential Care homes. Staff felt that communication links were now good with the DNSs and other health professionals and felt able and confident to contact them if they were concerned. A link person was put forward by each of the Diabetes Working Groups to act as the main link with the DSN in future.

Blood glucose testing – this is not currently carried out in the Residential Care Home due to standard policy. However, whilst it was decided at the present time it was not appropriate as there are no residents on insulin treatment, this could be explored in future. In the Dual Care Home the fact that tests were being done on a regular basis was discussed in each of the meetings and at the first meeting the Manager agreed to disseminate the message that this should be done randomly. However at a subsequent meeting it emerged that this practice still continues. This is partly because the residents themselves are used to a regular check and will ask staff to do it. It appears that this therefore has become ingrained practice for both staff (because of managing workload and being able to ‘tick off’ the job) and for residents. By the end of this project this was still an issue in the Dual Care Home and the DSN will continue to work with the home on this issue.

In the Dual Care Home it also emerged that the finger pricking devices for the blood glucose metres were not always being changed between patients. This was discussed in the meeting and the DSN provided new meters and disposable finger pricking devices. Training was provided to this home on blood glucose monitoring, use of the meter and the disposable finger pricking device and quality control of the meters.

OUTCOME MEASURES

Whilst the actions outlined above are the main outcomes from this project, data was also gathered to reflect change in knowledge and confidence amongst staff in the Care Homes. The knowledge questionnaire was repeated and showed an improvement in knowledge

Care Home	Number of staff (%) achieving over 50% correct (range in scores)	
	1 st questionnaire	2 nd questionnaire
Residential Care Home	2/10 staff (20%) scored >50% Scores ranged from 22% to 65%	3/3 staff (100%) scored > 50% Scores ranged from 57% to 78%
Dual Care Home	8/18 (44%) scored > 50% Scores ranged from 35% to 61%	6/9 staff (67%) scored >50% Scores ranged from 39% to 78%
Nursing Care Home	13/17 (76%) scored > 50% Scores ranged from 43% to 83%	Not undertaken

HbA1c readings (taken annually as part of the Annual Review) for residents were for 2007/8 and 2009 to identify any change. The results are all within reasonable range. Four patients have shown an improvement (one being significant) and three have not improved but are still within a reasonable range. It is likely that the next set of results will be a better indicator as the results look back over the previous 3 months and therefore changes or improvements will take time to show. It should also be noted that diabetes is a progressive chronic condition and therefore would possibly require change in treatment, which would be undertaken by the GP

RECOMMENDATIONS

- All Care Home residents with diabetes should have regular structured care which includes an annual review, feet checks and eye photography as appropriate. This GP and District Nurses responsible for the home have the lead on this.

- The results of the above checks should be fed back to the relevant staff within the care home. This is the responsibility of the GP or District Nurses, but for the Care Home staff to request this.
- All staff should be aware of the structure of care available to people with diabetes.
- Each care home should establish a lead person with a responsibility for diabetes that will act as the main link with the DSN and take responsibility for disseminating information and sharing good practice within the home.
- That care home staff contact the DSNs and that the contact is appropriate.
- That residents/patients are receiving a regular healthy diet and that staff have confidence with regard to what people with diabetes can eat.
- All staff have a good understanding of diabetes.
- Blood glucose testing is carried out appropriately based on individual patients needs.

NEXT STEPS

The DSN's will maintain contact with the participating Care Homes and also aim to engage with the remaining care homes in Powys to offer support and education about diabetes. In a large geographic area such as Powys it is difficult to provide training and courses and practice development events in a central location, as illustrated in the discussions about holding link nurse meetings. An individual approach such as working through an action research framework with each home has been effective in identifying the key issues in each home and identifying areas for improvement. Some key issues identified here were common across all the homes, i.e. diet and communication with other health care professions around the structured care for residents with diabetes. The DSNs will now focus attention to other care homes in Powys on these main issues and the other areas flagged up by this study.

DISSEMINATION

A copy of the research report will be disseminated to the participating care homes. A dissemination event will also take place with representatives invited from all the Care Homes in Powys to hear about and discuss the findings from this project.

REFERENCES

Diabetes UK (2002) *Care homes fail people with diabetes*. 13 March 2002.

http://www.diabetes.org.uk/About_us/News_Landing_Page/2812/

Diabetes UK (2006) *Diabetes: State of the Nations 2006. Progress made in meeting the National Diabetes frameworks*. A report from Diabetes UK.

Reason P & Bradbury H, (2006) *Handbook of Action Research*. Sage, London.

Tattersall R and Page S (1998) Managing diabetes in residential and nursing homes. *BMJ*; 316: 89.

Welsh Assembly Government (2003) *NSF for Diabetes Wales*, Cardiff.