Improving Diabetes Management in Care Homes within Swale CCG

An Education Model to support Unregistered Practitioners in Diabetes Care and Delegation of Insulin Administration

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1. The Case for Change

An increasing number of people are needing support to manage their diabetes due to other conditions that affect their ability to self-care, such as dementia and arthritis, or they are living in a care home and relying on Community Nursing Teams to deliver insulin (Diabetes UK, 2010). Community staff are likely to have a growing caseload of people who require this support - it is therefore important that they have the knowledge and skills to give the right care to people with diabetes, or to delegate insulin administration.

In 2010 Diabetes UK published a document to improve standards of care in Care Homes ('Diabetes in care homes: Awareness, screening, training) to improve the standards of care within residential settings and to reduce the number of hospital admissions.

Recommendations from the document included:

- Individualised care planning
- Screening for diabetes on admission and every two years
- Appropriate diabetes-specific training for all staff in the care home

Swale CCG (covering Sittingbourne, Sheppey and surrounding Villages) represents 19 GP surgeries, providing care to 106,000 patients. Swale has an average population of elderly (over 75) although this is expected to increase. There are 3 Nursing Homes within the CCG and 33 Residential Homes (including those for people with Learning Disabilities). Swale CCG have committed (through their Patient Prospectus) to reduce hospital admissions in the elderly population, and to support care homes.

In the Autumn of 2015, the Lead Nurse for Long Term condition carried out a process mapping exercise following a review of the number of patients reliant on the Community Nursing team to administer insulin. The Community Nursing team, locality wide were undertaking over 50 visits every day across the locality to administer insulin. Most insulin visits are delegated to junior staff grades 3 and 4. However higher grades do visit because of the volume of visits, and this had an impact on resources and how the patients were being managed. There had been instances of insulin being given at the wrong time, or on some occasions missed altogether, resulting in an increase in diabetes insulin reporting for the Locality .Patients choice and quality of life was also being compromised as they were unable choose to eat when they were hungry, or if they did eat, due to the volume of visits, and insulin being administered late, they were having hypoglyceamic, and or hyperglyceamic episodes.

The process of the model is demonstrated below:

Figure 1: Process Mapping (Karen Paine, Lead Nurse)

2. Identification of Care Homes

Identifying the homes in need of support was fairly straightforward – through surveying the homes, Community Nursing input and considering the opportunity for improvement . Six care homes (residential) were identified by the Lead Nurse as needing support in the management of their residents with Diabetes – particularly in relation to the administration of insulin, currently being undertaken by the Community Nursing Team. Poor timing of insulin, or inadequate monitoring of diabetes, was increasing the number of hospital admissions within Swale CCG, as well as causing inappropriate changes to insulin regimes and increasing GP visits and Specialist nursing interventions.

The provision of high quality diabetes care is reliant on care homes having access to the latest clinical evidence (Diabetes UK, 2010). It is not unusual for care homes to have no diabetes training structure in place, and this is probably due to budgetary issues. In Swale CCG, there has been minimal input into care

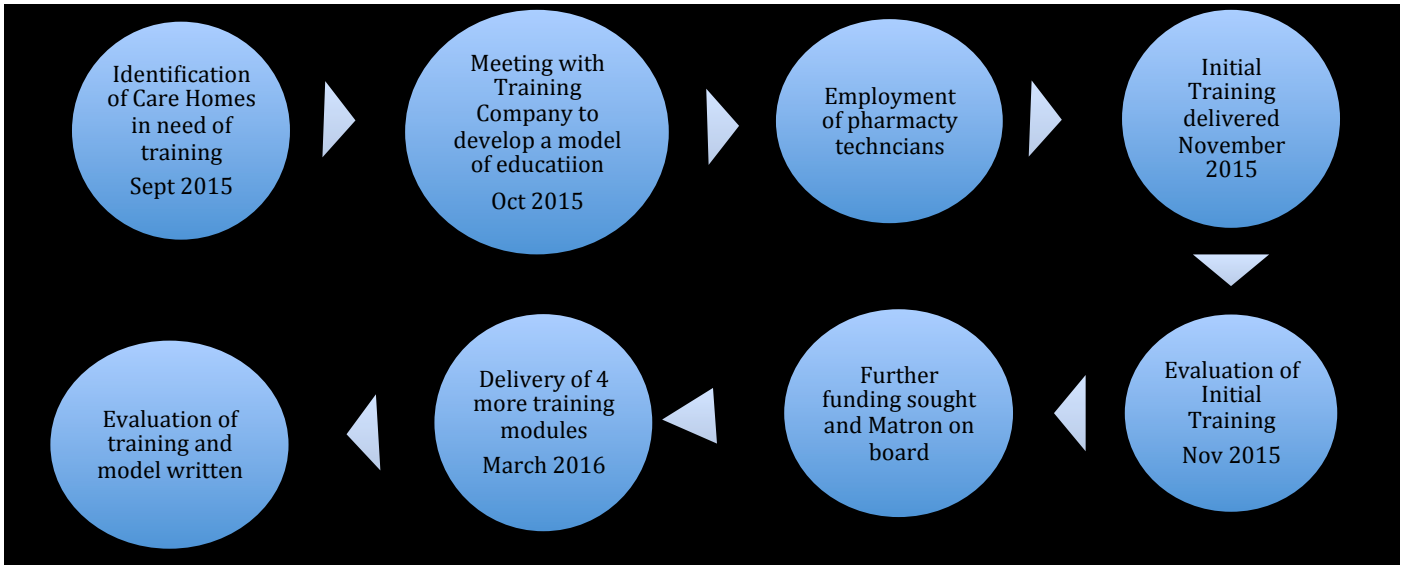
homes regarding diabetes care, and this has come mainly from Community Nursing teams who may also lack the expertise to delivery training in this area. Community Matrons have generic knowledge around diabetes management and care, and while they are able to advise staff, they are not commissioned to deliver education in this setting. Care Homes have a responsibility to ensure their staff are trained to manage the conditions with which their patients present, - however greater clarity is needed around the standard of education required. This lack of clarity has a huge impact on patient care and outcome, and upon the wider health economy, namely Community Services

As is often the case, budget implications meant that the homes identified as needing training and support were unable to allocate funding to specific training. Following negotiations with the Community Trust, CCG's and Industry, the Lead Nurse secured funding from Industry to support the initial training modules, with the Community Trust agreeing to support the training with a pharmacy technician – to follow up on the theory of the training and to 'hand hold' staff until they felt fully competent in administering insulin.

Therefore, the project had the following purposes:

- To clarify the role and ability of Unregistered Practitioners caring for patient with diabetes
- For the Community Nursing Team to delegate insulin administration to Unregistered Practitioners
- To reduce the number of hospital admissions and 999 calls within Swale CCG
- To make sure each person is receiving the right diabetes care – the case for change in Swale was triggered by a patient case study outlined on Page 5

Figure 2 – Development of Project



Case Study – Mr Smith

Mr Smith is a new resident in one of the care homes. He has type 2 diabetes, heart failure and COPD, as well as a diagnosis of dementia. He is independent, and frequently takes himself out of the care home environment to the shops and local public house.
He wakes very early in the morning and likes to have his breakfast at about 5am.
He buys lots of sweet things and also partakes in the odd alcoholic beverage, which is all very normal, and should not be an issue for someone in their own home.
The Community Nursing Service had been visiting three times a day to administer his doses of insulin, prescribed to coincide with breakfast, lunch, and evening meals. The visits were happening any time in the morning between 8am and 10am, around lunchtime between 12-2pm, and in the evenings after 5pm and p to 10pm, according to the needs of other patients on the caseload, staff resources and the volume of the patients that needed emergency and essential visits.
As a result of this mismatch in food and administration, Mr Smith had varying degrees of hyperglycaemia and hypoglyceamia, and was admitted to hospital almost weekly. He was also given many doses of short acting insulin to bring his blood sugars into more acceptable parameters , when he presented with hyperglyceamia. This often resulted in rebound hypoglycaemia

3. The Model of Education Delivery

Diabetes UK (2010) state that it is 'vitally important that care home staff have received sufficient training for all staff involved in the care of residents with the condition'. The Lead Nurse was concerned about the lack of training the care homes had received, and was keen to deliver some evidence based, up to date training with competencies attached.

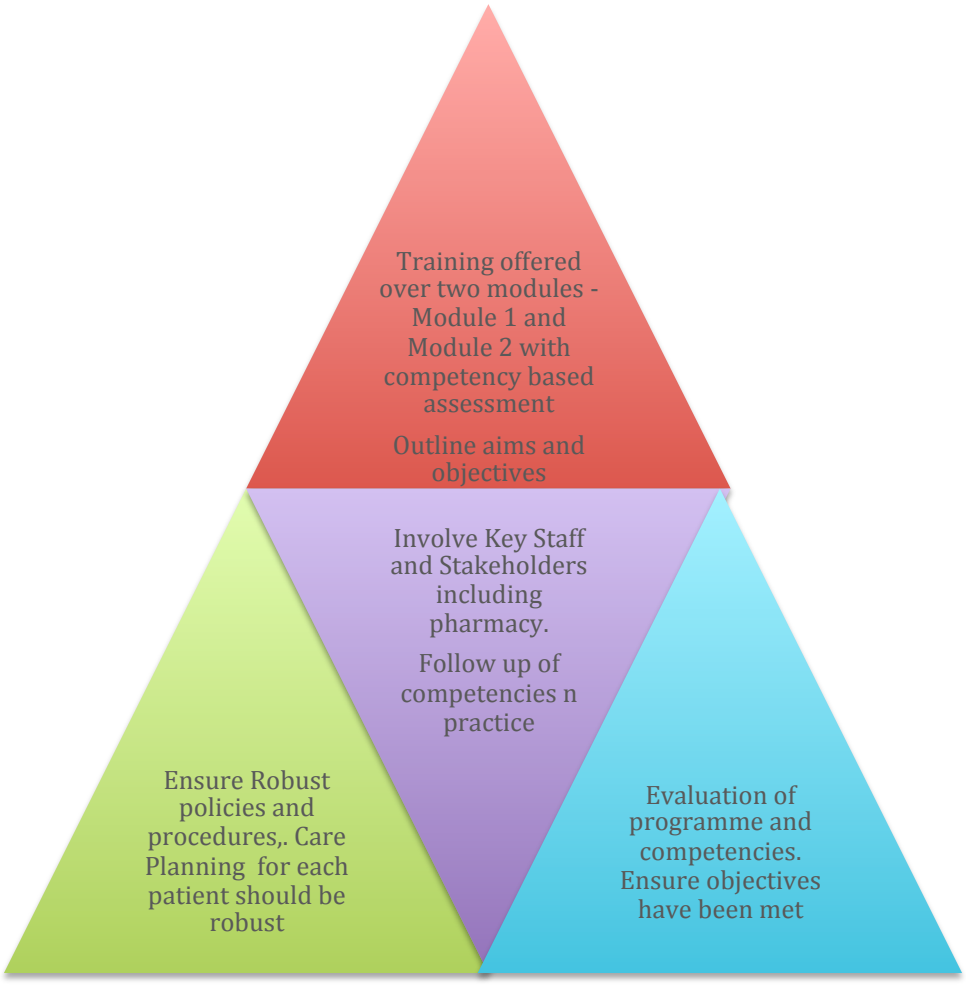
The key features of the model had to include:

- A robust, evidence based module for improving **basic** diabetes care in Nursing and Residential Homes (TREND, 2015) – including high risk areas of hypoglycaemia, hyperglycaemia and foot care.
- An advanced module for those care staff whose learning improved through the first module and were willing to take on the responsibility of administering insulin (as an Unregistered Practitioner)

- Competencies and Self Assessment evaluation for both modules which allows identification of training needs using the 'How To' model (Diabetes UK, 2016)
- Training that would meet the Care Quality Commission (CQC) standards
- A replicable model which could be applied in any other CCG's
- Cost effective in reducing admissions to hospital and less Community Nurse support
- Ongoing support from CCG's, Community Health Trusts and Specialist Services

The use of competencies helps individuals plan their development in a more structured way – whether they be unregistered or registered nurses – and also gives managers qualitative evaluation data by identifying individual training needs

Figure 3 – Model of Training



BeniKent – a training company owned and run by Sarah Gregory – was asked to facilitate and deliver the training to the care homes. Sarah Gregory is a Diabetes Specialist Nurse, who works in Acute Care, as well as having 15yrs experience as a DSN both in Primary and Secondary care, and the delivery of education programmes to qualified and unqualified staff, including GP's, foundation doctors and nursing staff.

To meet these features, BeniKent modified current training modules to deliver training to these care home staff. BeniKent use the TREND framework (2016) to guide participants on their roles and responsibilities in a creative and flexible way – as well as identifying their boundaries and limitations.

4. How the change was achieved

The model is figure 3 demonstrates the key areas of the model:

- Training offered
    - Two modules were offered to the delegates – Module 1 'Overview of Diabetes' and Module 2 'Safe Administration of Insulin'. All staff who wished to do Module 1 had to have completed Module 1 and be able to manage diabetes, blood glucose monitor and manage hypoglycaemia. Not all delegates chose to attend Module 2. Staff who attended Module 2 had to complete a written test and then discuss competency completion with the Lead Nurse and Pharmacy Technician
- Care Planning and Robust Policies and Procedures
    - The pharmacy technician was employed to help provide assurance in the safety of insulin administration Unregistered Practitioners. There was also an escalation process in place so that Residential staff could seek support as necessary. Care Plans must be in place and up to date before Unregistered Practitoners could carry out insulin administratin.
- Involving key stakeholders
    - The Lead Nurse for Long Term conditions was the key for integrated working, who then involved the Matrons and Community Nurses in both the training and following up competencies and care planning following the delivery of training.
- Evaluation
    - Evaluation was carried out by BeniKent and shared with stakeholders as well as attendees. The impact of the programme was measurable in both competency improvements and a reduction in hospital admissions and 999 calls. Evaluation also saw positive feedback and comments from delegates who felt that their knowledge and skills had improved.

5. Outcomes

At the start of the project, there was 18 patients within care homes that had their insulin administered by care home staff, most on three times daily regimes. This was an enormous burden on Community Nursing resources, as well as patient satisfaction and safety. Following the training, the care home staff were delegated the responsibility of insulin administration, with outstanding improvements. Simply by administering insulin at the right time, in the right way, the care staff reduced up to 378 visits per week by Community Nursing teams resulting in a saving of approximately £18,900 (based on each visit @£50 each) As well as this saving, Community Health Care professionals now have an increased capacity to reallocate their expertise in other areas of need for their patients.

A big impact has also been noted on patient safety - there has been a reduction of hospital admissions across Swale by 65% and a reduction of 999 calls by 69%. (Figures obtained from Seecamb, and support evidence from telecare installed in some of the homes)

Case Study – Mr Smith

The staff within the Residential Home attended the training modules (Both 1 and 2) and were trained in diabetes management, injection technique and insulin administration, with follow up supervision and support from the pharmacy technician.

Mr Smiths experiences have changed since the care home staff have taken on the responsibility for his insulin injections.

He still gets up early and had is breakfast, and staff are able to administer his insulin according to how it was prescribed. This is the same during the day and evenings. He still goes off to the shops and pub, but the impact of his blood sugars was much less.

His blood sugars were at a more acceptable level, he stopped going into hospital for diabetes related illness, and his quality of life has improved considerably and he is able to decide for himself when he can eat and go out.

Staff are able to recognize signs and symptoms of hyper and hypoglyceamia, and manage them accordingly, and are more confident in their care.

GP visits and specialist nurse intervention has reduced, and Mr Smiths insulin regime remains unchanged.

Prior to the training, attendees were asked to complete a self assessment based on the competencies that would be covered during the training (Module 1 and Module 2). These competencies were based on the TREND competency framework for Unregistered Practitioners.

Key areas (hypolgycaemia, sick day rules and footcare) of improvement are noted in the table below:

Competency Area	Pre Course – Competent	Post Course - Competent
Understand the role of blood glucose monitoring and who to share results with	42%	100%
Be able to define hypoglycaemia	29%	88%
Be able to discuss the symptoms of hypoglycaemia	16%	100%
Know the treatment for hypoglycaemia	29%	92%
Understand additional risks for hypoglycaemia in the care home setting and prevention of hypoglyceamia	13%	96%
Understand the risk of Diabetic foot disease	30%	96%
Be able to discuss prevention of the diabetic foot and daily care	17%	96%
Be able to implement 'sick day' rules and principles	4%	100%

These competency improvements were supported by comments made by attendees:

- *Feel more confident in insulin administration and use of pens*
- *Enjoyed Check injection sites*
- *Be more aware and observe individual for "changes"*
- *Now have abetter understanding of diabetes*
- *Interested to learn more and be more competent*
- *Now have good general knowledge and more confident*

All staff who attended Module 2 took the competency test – with a pass mark of 90%. One attendee did not pass the test and was therefore not competent to administer insulin at this time but would be invited to future training as well as being given support the Community Matron.

6. Lessons Learned

The success of the model relies heavily on stakeholder involvement – GP's, CCG's, Community Nursing Teams, Practice Nurses, Residential and Care Home Staff, Pharmacist – to name but a few. All of these staff are involved in the care of patients at some point and integrated working to improve the standard of care, as well as insulin delegation to unregistered practitioners, is key to success.

At the first session, the Community Nursing team were invited but did not regard it as necessary to stay for the whole training – this was highlighted by the trainer and future training involved all of the teams, as well as the pharmacy technician involved in supporting staff.

Community Nursing staff are overwhelmed by the volume of patients on their caseloads- many feel that care home facilities charge their patients/residents large amounts of money to care for them yet are not adequately trained to look after them and that this is the responsibility of the NHS. They feel patients are not adequately informed about their condition, are not empowered on diagnosis and are under the impression that the NHS just deals with their health and that they have no responsibility for it
(Quote from Lead Nurse, Long Term Conditions after meeting with Community Nursing Team)

To develop the model, more formal caseload reviews are required – although this can be time consuming it identifies patients who could potentially be managed by others, or self management encouraged. Community Nurses were not fully prepared for the potential impact the training may have, and for future reviews the following questions being asked (from 'How to Manage insulin administration in the Community – Diabetes UK 2016)

- How many people are on the community diabetes caseload?
- How many people currently require insulin and how many need support with their injections?
- What is the current ratio of staff (registered and non-registered) to people with diabetes in the community?
- Have staff administering insulin received relevant and up-to-date training?
- How many reported insulin errors have there been in the last year? Why did they happen and how could they have been prevented?
- How many diabetes-related ambulance callouts or hospital admissions have there been? What were the reasons?
- How much time is spent on diabetes care in the community? A time log might help you assess this.
- How do nursing staff feel about their caseload?
- What is the job role and banding of those administering insulin? This can help to clarify the appropriateness of tasks and where costs could be saved.
- Are there any other questions that need to be answered to help meet your aims and objectives?

The training model demonstrates an evidence based, practical training which gives a an overview of basic diabetes care to meet CQC expectation and guidelines recommended by Diabetes UK, as well as a written questionnaire for those completing Module 2 and are to be administering insulin.

This model is now supported by the Diabetes UK 'How to Manage insulin administration in the Community' which was published in March 2016 and some key features of this document will be incorporated into the second version of the model. This guide gives a comprehensive guide to insulin delegation, and staff who have attended should be encouraged to formally adopt the checklist in the document.

7. Recommendations for future training

- **The training needs to be sustainable**
  - Consideration of staff involved in implementing the project, venues and assessing competencies
  - Consideration of changing workforces – both in those working in care home settings and those delivering the education
- **Formalised use of evidence based guidance already in circulation**
  - Use of documents such as the Diabetes UK 'How to Guides', TREND competencies and RCN publicatoins
- **Ensuring that Community Nursing teams are aware that the responsibility for the patient remains**
  - Care Home staff are generally not trained nurses so cannot be responsible for changing treatment regimes or care plans – patients remain under the care of the GP and Community Nursing teams. Registered nurses should only delegate tasks and duties that are within the carers scope of competence, and are able to provide safe care.
- **Importance of care planning**
  - Care plans should be reviewed at least every 6-12months – by the GP, Community Nursing team or HCP responsible for the diabetes management. Care plans should be written with the patient or a patient advocate present
- **Importance of caseload review**
  - Look at the diabetes caseload as a whole, review care on an individual level to understand the quality and appropriateness of care, including the time and resources required for that person (Diabetes UK, 2016)
- **Quality Assurance and Continuing Professional Development (CPD)**
  - For Health Care Professionals taking on training and development in this area (who are not experienced Diabetes Specialist Nurses) consider Quality Assurance of the training provided, and CPD points.