

SECTION ONE - CATEGORY

Please put a cross in the box beside the category you wish to enter:

Best type 2 diabetes prevention initiative	<input type="checkbox"/>
Best screening/early detection initiative	<input type="checkbox"/>
Best initiative supporting self-care	<input type="checkbox"/>
Best integrated care initiative	<input type="checkbox"/>
Best emergency/in-patient care initiative	<input checked="" type="checkbox"/>
Best initiative managing complications associated with diabetes	<input type="checkbox"/>
Best safe care of patients initiative	<input type="checkbox"/>
Clinical service redesign	<input type="checkbox"/>
NHS Team of the Year working in diabetes	<input type="checkbox"/>
Community initiative of the year	<input type="checkbox"/>
Industry-led initiative of the year	<input type="checkbox"/>
Partnership working of the year	<input type="checkbox"/>

Note: Please complete a separate form for each entry and category you wish to enter

SECTION TWO – YOUR DETAILS

Title:	Dr
First name:	Haroon
Surname:	Siddique
Job title:	Consultant in Diabetes and Endocrinology
Hospital/trust/company/organisation:	Dudley Group of Hospitals NHS Trust
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SECTION THREE – ADDITIONAL CONTRIBUTORS

If entering a team/partnership category, or if there are other individuals to recognise, please list them here:

Additional contributor one:	Dr. Jane Dale	Consultant Endocrinologist
Additional contributor two:	Sister Kate Crowley	Diabetes Specialist Nurse
Additional contributor three:	Sister Ann Stroyde	Diabetes Specialist Nurse
Additional contributor four:	Sister Claire Holme	Diabetes Specialist Nurse

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Additional contributor five:	Claire Salt	Link Pharmacist
Additional contributor six:	Graham Yapp	Information Manager

SECTION FOUR – YOUR ENTRY

Once you have completed this form, you may submit your application online by uploading this form when prompted.

Background/origin of the project:

Briefly provide the background to the initiative and explain why it was undertaken. From this the judges should be able to understand why there was a need for the initiative. Also state the month and year when it started.

The ThinkGlucose project was launched across Dudley Group of Hospitals NHS Trust in August 2010 in response to The National Diabetes Audit 2009 which found that a large proportion of all in-patients in the Trust had diabetes, and that these patients had a longer length of stay and poorer outcomes than similar patients without diabetes. The audit showed:

- Number of patients with DM across the Trust was 22.4%
- Insulin prescription errors were 24.6%.
- Hypoglycemia management was appropriate in only 26.1% of patients.
- Further audit revealed 23.3% of referrals to our Diabetes Specialist Nurses were inappropriate.

The Healthcare Commission 2007 National Survey of in-patients with diabetes found that they stay on average 2.6 days longer than patients without diabetes.

- At baseline, the average length of stay for patients with Diabetes in Dudley Group was 8.13 days (12 months average)

We launched the ThinkGlucose Project to improve these outcomes, on two pilot wards in April 2010, and Trust wide in August 2010, through the Diabetes Outreach Team which included a lead Consultant, Diabetes Specialist Nurses and junior doctors.

Objectives:

Explain what you hoped to achieve with the project, including what you wanted success to look like. This will help the judges determine whether you were successful.

We had 3 clear objectives:

- 1) To increase the awareness and uptake of the support of the Diabetes Outreach Team and improve management of in-patients with diabetes through structured education, updated protocols and documentation.
- 2) To deliver early specialist involvement to patients admitted with diabetes as a primary or secondary diagnosis. To develop a clear discharge and follow up arrangements, improving patient's experience, quality of care and length of stay.
- 3) To reduce prescription errors and improve the management of in-patients with diabetes related acute complications.

Execution/implementation:

Use this section to demonstrate what you did. You can outline any methodology, analysis, monitoring, communication, staff and patient participation, and your overall approach in implementing the project. Judges will be looking to understand how you went about achieving your objectives.

1. Awareness:

A number of methodologies were used to improve the staff awareness about the Diabetes Outreach Team (DOT).

- A leaflet explaining ThinkGlucose was clipped onto the July 2010 pay slips for all staff across the Trust.
- Junior doctors and nurses' induction days were used as a platform to demonstrate our presence.
- August 4th 2010 was advertised as a launch day and successfully implemented with the help of the communication team.
- A Hub story in the Trust Website and a Screen Saver outlining ThinkGlucose and the Diabetes Outreach Team (DOT) referral form were introduced.
- GP magazine, Trust magazine and Patient magazine (Testing Times) had briefs about ThinkGlucose and our service, in addition to posters and banners across the Trust.
- Matrons, lead nurses and nursing managers were briefed separately about our program.

Staff education:

Excluding the maternity staff there are 639 nursing staff caring for patients in the wards.

- A separate register for this group and junior doctors including the registrars was maintained.
- The content included a brief outline about diabetes and management of complications, available treatment options, newer agents, types of insulin, common prescription errors and ways to avoid these, early identification of patient with diabetes and accessing the DOT team even on Saturdays.
- Departmental, ward based and night-time teaching programs were used for the nurses while the doctors were taught in dedicated learning sessions.
- A certificate of attendance was provided for those who attended the teaching session.

2. Early specialist involvement/ Early Discharge and follow up:

Major Service reconfigurations were made to incorporate ThinkGlucose as a part of our daily activity.

- Consultant's and specialist registrar job plans were revisited to incorporate 4 dedicated sessions each for ThinkGlucose per week. Diabetes nurses now provide 6 day a week service for in-patients with diabetes.
- In addition to using our ThinkGlucose magnets to identify patients, the admission documentation now has a ThinkGlucose logo which triggers automatic referral to DOT using the referral form, with clear referral criteria.
- Follow up arrangements were made for those patients who were discharged after DOT review through a standard referral form.

3. Reducing drug errors/Improving care for acute complications.

We have introduced a variety of clinical observation and early warning charts, to trigger staff to take appropriate action for in-patients with diabetes. We have also updated our guidelines for the management of diabetes, in accordance with National Recommendations where available:

- A colour coded BM chart with advice about management on the reverse.
- A DKA monitoring chart with management guidance on the reverse.
- Insulin prescription chart with meal time rather than clock times, with preprinted "units" and

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instructions.

- Variable rate insulin infusion chart with clear guidance on the reverse.
- Education sessions for doctors and nurses.
- 20% dextrose and blood ketone meters were made available across the acute wards to enable introduction of new DKA guidelines
- New guidelines are now available in the trust intranet site.

Results :

Describe the outcome(s) of the project. In particular demonstrate the impact on staff and patient outcomes, against the original objectives.

1.

NATIONAL AUDIT	2009	2010
a. No of in-patients across the trust with diabetes	22.4%	11.6%
b. No of in- patients coded for diabetes in the same month	6.6%	8.15
c. Insulin prescription errors	24.6%	6.4%
d. Appropriate in-patient hypoglycemia management	26.1%	65%

Explanation:

- With improved care, staff education and reduced length of stay, number of patients admitted to hospital with diabetes as co-morbidity has reduced significantly.
- With the use of colour coded referral form and staff education, the number of patients coded for diabetes has improved.
- NPSA had issued an alert about Insulin prescription errors. We have incorporated this in our teaching program which had resulted in a significant reduction of insulin related prescription errors.
- With the introduction of new Hypoglycaemia guideline and staff education, the management of in hospital hypoglycaemia had improved significantly.

2. Staff education: Out of 639 nursing staff 453 were educated through TG (70%). Including doctors and student nurses the figure increases to 552 in total.

3. Average length of stay: At baseline, the Average LOS for patients with DM in DGOH was 8.13 days, which was calculated from the previous 12 months average. There were 3614 admissions of patients with DM between August 2010 and March 2011, and the AvLOS reduced from

- 8.13 days to 7.52 days.
- This represents a mean reduction of 0.61 days, which equates to 2200 beds days being released at an average unit cost per bed day of £192, thereby generating efficiencies for the Trust of £422k, in the first 8 months of the project.

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4. HbA1c reduction 3 months after admission (admitted between April 2010 and November 2010)

HbA1c at baseline

Reduction from baseline

Known diabetes	9.34%		Known	- 0.47%
New onset	10.63%		New	-1.71%
Grand Total	9.45%		Grand Total	-0.57%

- The average HbA1c for patients with new-onset diabetes and known diabetes admitted to hospital were 10.63% and 9.34% respectively. This reduced by 1.71% and 0.47% respectively in 3-6 months after intervention by the Diabetes outreach Team.

Reduction from baseline based on HbA1c levels:

Newly diagnosed

Known diabetes

HbA1C	Total		HbA1C	Total
<10%	-0.61		7-8%	-0.02
>10%	-2.68		8-10%	-0.22
Grand Total	-1.71		10%+	-1.21
			Grand Total	-0.47

- When the data was analysed further based on the HbA1c levels, the result revealed patients with higher HbA1c levels benefitted the most through our intervention both in new onset or known diabetes group. Reduced HbA1c levels is associated with a reduced risk of both short-term and longer-term complications of diabetes.

5. Inappropriate referrals: Inappropriate referrals based on ThinkGlucose criteria showed a reduction from 23.3% to 13.8%

Evaluation:

Explain how you measured the success of your project.

- Through National Diabetes Audit and internal audits carried out by our audit department and the diabetes team both for 2009 and 2010.
- Dudley Group Trust IT produces a report on Length of Stay for patients with and without diabetes every month.
- Baseline information for all patients seen by our Diabetes Outreach team were collected and stored by DSNs. Subsequent HbA1c collected from our pathology lab were matched by our Trust IT to demonstrate the reduction.
- Maintaining internal register for staffs who had attended our ThinkGlucose teaching.

Feedback:

Provide at least one quote from a customer/clinician/commissioner/patient confirming the impact/effectiveness of your initiative. All referee details will be kept confidential.

Referee details:

Name:	Steve Cartwright
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23rd March 2011

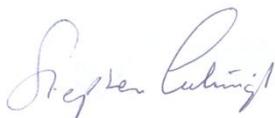
Dr H Siddique and Team
Diabetes and Endocrinology Department
Dudley Group of Hospitals NHS Foundation Trust
Russells Hall Hospital
Dudley
DY1 2HQ

Dear Colleagues

I write on behalf of the Clinical Quality Review Committee to congratulate the Diabetes and Endocrinology Team on the excellent Think Glucose programme which has taken place at Dudley Group of Hospitals. Your excellent work has clearly shown that you put quality at the heart of the care you provide and we commend you on the work that has been done.

Kind regards

Yours sincerely



Steve Cartwright
Interim Medical Director/PEC Chair

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Learnings:

One of the main aims of QiC is to enable learning and sharing of initiatives across the four nations for the benefit of diabetes patients. Use this section to outline any learnings that can be taken from the project and/or challenges faced along the way, that could be transferred to other teams and organisations in the field of diabetes care.

The first step is to get the baseline data and objectives clear. Personal involvement and commitment from the whole team is crucial. We made a point to inform all the relevant parties before making any changes to existing practice. We showed commitment from the ground level to the top level including: delivering teachings, manning the TG stall on the launch day, participating/analyzing the audits, designing proformas, setting up guidelines, pathways etc. We also involved colleagues from senior trust staff, managers, finance, IT, pharmacy, coding and various other departments in the Trust. We gained the trust and support of staff within and outside our department which helped us to implement the required changes.

The roles and responsibilities of individual staff were clearly documented and the expectations from the staff were outlined at the start of the project.

Periodic meeting with nursing staff, IT, pharmacy, coding, and finance took place to assess our progress.

By working closely, both with clinicians and non-clinicians, we were able to show real improvement in patient care.

Innovation:

If applicable, explain what makes your initiative innovative or pioneering, and describe the impact of your initiative relative to the resources you used.

- We believe staff education is the key in taking our service forward, and being prepared to deliver teaching wherever is most convenient to members of busy teams. For instance, we offered dedicated teaching sessions at night for night staff. This is first of its kind and was highly appreciated by the staff at Russells Hall Hospital.
- Using high quality information from our Trust IT department, we were able to assess our progress, highlight deficiencies/ problem areas and address them accordingly.
- By designing high quality and user friendly proformas, protocols and referral forms, we were able to address the common diabetes related management errors and provide early specialist support.

SECTION FIVE – SUMMARY OF ENTRY

Provide a short summary of your full entry (max. 250 words). Please note that this may be reproduced by the QiC organisers if your entry is shortlisted, to promote the QiC finalists, including in print and online.

Brief summary:

Background:

The ThinkGlucose project was launched in Dudley Group of Hospitals across the Trust in August

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2010 in response to the National Diabetes Audit 2009.

Objectives:

- To increase the awareness of diabetes in in-patients and educate staff.
- Early specialist involvement with early discharge/follow up plan to reduce the length of stay (AvLOS).
- To reduce prescription errors and improve patient care through updated guidelines.

Design:

- We carried out appropriate baseline audits on inpatient diabetes care across the hospital.
- A dedicated Consultant-led Diabetes Outreach Team (DOT) was formed.
- A rolling teaching program for nurses and doctors including night-time teaching were introduced.
- A six day ThinkGlucose service was introduced including dedicated consultant sessions.
- Our service was advertised to all staff and patients.
- Protocols, guidelines, proformas were introduced in accordance with national guidelines.

Results:

- Number of in-patients with DM across the Trust, reduced from 22.4% to 11.6%.
- AvLOS reduced by 0.61 days, generating efficiencies for the Trust of £422k, in the first 8 months of the project.
- More than 70% of staff caring for in-patients were educated through ThinkGlucose.
- HbA1c reduced by 1.71% and 0.47% for new-onset and known diabetes patients respectively.
- Insulin prescription errors reduced from 24.6% to 6.4%
- Appropriate hypoglycemia management improved from 26.1% to 65%
- Inappropriate referral to the specialist team dropped from 23.3% to 13.8%.

Conclusion:

Implementing ThinkGlucose at Dudley Group has resulted in improved outcomes for various Diabetes related endpoints.