Sandwell & West Birmingham integrated community care diabetes model (DICE) – the future of diabetes services?

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BACKGROUND & RATIONALE:

- Diabetes is a worldwide pandemic and this is reflected more so in the West Midlands (Sandwell and West Birmingham CCG prevalence is 10.1% compared with the national and regional average of 7%).

- The impact on primary care is significant with difficulty in managing increasing numbers, reducing HbA1c, other complications and maintaining skills in diabetes.

Challenges!

- The challenges faced particularly are - lack of clinical engagement, partnership care planning and clarity regarding finances and responsibility between Primary and Secondary care.

- As a result, diabetes management is disjointed with gaps and duplication in delivering seamless care resulting in an inability to build capacity and capability in primary care.

Big challenge!

- Maintaining status quo in running current diabetes services is NOT an option!

- **Newer & innovative ways of working have to be implemented**

Integrated diabetes care (IDC)

- ***"approach seeking to improve QOC of the individual with diabetes, service users and carers by ensuring that services are well co-ordinated around their needs"***

Kings Fund & Nuffield Trust 2011

5 pillars of Integrated Diabetes Care

- 1) Clinical engagement & partnership
- 2) Care planning – joined-up care & engaged patients
- 3) Integrated IT systems
- 4) Aligned finances and responsibility
- 5) Shared clinical governance

Lack of Clinical engagement & partnership

- Between primary and secondary care and lack of clear-cut guidelines for which patients to be managed by whom and where

Lack of Care planning and Engagement with patients

- **Lack of joined-up care and engaged patients**: lack of clarity amongst patients to learn, engage and self-manage, partly because of lack of knowledge, skill base and partly due to poor uptake of structured diabetes education programmes (DAFNE and X-PERT).

Lack of Integrated IT systems

- **Lack of integrated IT systems**: patient information not being adequately shared between primary and secondary care with resultant delays in accessing appropriate and safe care. There were delays in communication & referrals and duplication of services.

Aligned finances and responsibility

- **Lack of clarity regarding finances and responsibility**: financial boundaries were not clearly demarcated leading to divisions between primary and secondary care

"Tendency to hold onto complex diabetes patients for financial reasons in the community with resultant worsening of metabolic control, and similarly for hospitals to endlessly follow-up relatively routine diabetes patients"

Lack of shared clinical governance

- **Lack of robust clinical governance structure**: general lack of ownership and fragmented approach to patient care meant that there was no robust clinical governance structure in place leading to risky and unsatisfactory service provision.

The Pathfinder model:

- The Pathfinder Diabetes Project (initiated 15 years ago) started off with 2 practices initially (expanded to seven GP practices in 2010) to address some of these unmet needs.
- In this model, GP practices identify cohorts of difficult diabetes patients with poor HbA1c control for a one-off for advice and management plan by the consultant/diabetes specialist nurse every 2-3 months. The primary care team then take this plan forward and put it into action.
- We decided on criteria for referral to these joint clinics according to locally agreed pathways, frequency of clinics and how to deal with interim queries, including communication through local GP practice IT software.

Aims of this initial Pathfinder model:

- Close working with every GP practice – **integration** of specialist and generalist across boundaries
- Joint clinics in the community – **devolve care,** provide care close to home, reduce DNA rates
- Provide support & education to GP/PN – **help build capacity & capability** in primary care
- Support patient education programmes and **empower them to self manage** – DAFNE, X-PERT education courses

Aims of this initial Pathfinder model:

- Provide **evidence based care** according to established guidelines & NICE pathways
- Develop **protocols and pathways** jointly - which patients, seen where and by whom (including specialist care in Hospital) - empower GP/PN to manage locally & refer appropriately
- Dissipate and encourage **wider use of Advice & Guidance service**
- To improve **formulary compliance** and value for money prescribing
- **Seamless care** between primary and secondary care teams working in unison to provide the desired integrated care

Pathfinder clinic results:

- **Diabetes management skills in Primary Care improved significantly** – evidenced by staff satisfaction survey, improvement in HbA1c and quality of referrals to secondary care.
- **Patient satisfaction survey (2012)** results show an average score of 5-6/6 on domains like “quality of service”, “overall satisfaction”, “helped deal more effectively with own diabetes”, “appointment times and clinical environment”. Patient comment “I love my diabetes care here in these clinics rather than the Hospital”.
- **Staff satisfaction (2012)** was over 95% on survey of “quality of service”, “ease of access to Consultant/DSN”, “improvement in knowledge and confidence”, “model as a way forward for diabetes service” and “recommendation to colleagues”. Praised by GP/PN in a recent survey "excellent service, innovative, wish such clinics were more frequent".

Pathfinder clinic results:

- **Improvements in HbA1c**: audits from five practices showed between 50-62% reductions in HbA1c levels over 2 years in these clinics (2010-2012).

- **Increased uptake of X-PERT structured education programme in the community:** From Jan 12 – Dec 13, 300 patients attended X-PERT programme in the community with 82% attending 1 session, 63% 4 sessions (23 programmes – 13 patients per programme). First ever X-PERT in Asian language was commenced - attended by 14 patients in March 2014.

- **QOF figures** from practices improved significantly **(QOF data 2012-2014).**

Pathfinder clinic results:

- Helped achieve cost **savings & attain Right Care Right Here model of care** by devolving care into community including increase in Hospital clinic capacity – in 2012, 52% (85/164) patients seen in these clinics had been discharged from Hospital.

- Reduced complication rates and reductions in hospitalisations from **ketoacidosis DKA (2010-11: 11, 2013-14: 5 DKA) and amputations (2011-9, 2012-4, 2013-3 amputations)** with its resource and manpower implications – improved health economy.

- Pathfinder project won a national **Quality in Care award in 2014**

Diabetes in Community Extension (DiCE) team formation:

- We have been advocating a mode widespread adoption of this particular model for Diabetes integrated care management to our PCT/CCG for a number of years.
- Sandwell & West Birmingham CCG in collaboration with secondary care providers Sandwell and West Birmingham Hospital Trust (SWBH) & Birmingham Community Healthcare (BCHC) have finally redesigned the existing diabetes service model.
- The CCG commissioned us to deliver a community diabetes service in all the 89 practices from April 1st 2014. We named this model ***DICE – Diabetes in Community Extension.***

Diabetes in Community Extension (DiCE) model:

- The typical model provides joint diabetes clinics within GP practices every 8 weeks (practices identify difficult or poorly controlled diabetes patients with HbA1c > 69 mmol/mmol) for a one-off advice and management plan by an assigned team of consultant & diabetes specialist nurse.
- Options to suit individual practices include Virtual clinics, Joint consultations, Case notes review and Advice and guidance.
- A **Diabetes Local Improvement Scheme (LIS)** was also commissioned by the CCG during 2014-15 to complement the DiCE service in primary care.
- Financial model was based on **block contract and sessional payment**.

HOW HAVE WE DONE SO FAR?
DICE RESULTS APRIL 2014 – MAY 2015:

Data from 53 practices:

- 3060 patients have benefitted from the DiCE service
- 595 less outpatient appointments were made
- 25/53 practices (50%) have seen a decrease in their outpatient activity
- 31 practices reported positive engagement with their respective DiCE teams
- 22 practices have reported mixed feedback.

DICE RESULTS 2015-2016:

- 61 evaluations received from 89 practices. 1985 patients were seen with an average of 34 patients per practice and 1771 patients were given a management plan.
- 53/61 (87%) practices gave extremely positive feedback from their experience working with DiCE – patients benefitted from the service, access of care closer to home and there was an overall improvement in patient's medication compliance and general engagement & self-care capability.
- Both primary care clinicians and patients alike appreciated the level of specialist care available. In general, most practices appreciated "all" options of integrated working available to them; however there is a clear preference for joint consultations.

Qualitative benefits:

- Practices have highlighted in particular **“up skilling”** as extremely beneficial for staff and also the effects joint consultations have on helping educate patients and become more responsive to listen and make the necessary changes to their lives to improve their diabetes.
- The overwhelming responses were to increase access to joint clinics possibly to monthly slots. Learning and skills gained over the past year have been broad with benefits relating to **ability to initiate and titrate insulin, improved understanding of diabetes medications, and the importance of team work** to deliver diabetes care.

- Both quantitative and qualitative data collection is on-going
- 90% type 2 and stable Type 1 diabetes care in community
- LIS Sign-up (total number of CCG practices 89): Level 1(Foundation): 89 practices, Level 2: GLP1- 72 practices, Insulin – 68 practices
- Going forward the LIS will be part of the Primary Care Commissioning Framework (PCCF)

Impact of DICE in the last 2 years:

- OP attendances have reduced by 1214 in 2015
- OP attendances have reduced by 1330 in 2016

IP complications where diabetes is the primary reason for admission?

- **HYPOGLYCEMIA** – 8 fewer admissions in 2015 and 22 fewer in 2016 (yearly comparisons)
- **DKA** T2DM related stable (43 and 44) but up in T1DM by 19 (75 to 94) – many of these are same recurrent patients skewing numbers
- **PVD** incidence is stable (35 and 36 in last 2 years)
- **RETINOPATHY** less (6 fewer admissions)

IP complications where diabetes is a secondary diagnosis?

- **HYPOGLYCEMIA** – 5 fewer admissions in 2016
- **DKA** T2DM related stable (5 and 6) but up in T1DM by 6 (from 2 to 8) – many of these again are same recurrent patients skewing numbers
- **PVD** incidence has increased (23 to 28 in last 2 years)
- **RETINOPATHY** incidence has increased (124 to 134)

Why is our DICE model innovative?

1) Amongst the **first projects to be initiated in the country**.
2) **Patient at the ”heart” of project**
3) Improvements in diabetes service through **upskilling of knowledge**.
4) **Novel concept of disease management and delivering care**: specialists going out to patients rather than the traditional way of hospital-based care.
5) **Cost-effective**, joined-up way of delivering care for chronic disease - could change how chronic disease is managed in future.
6) **Liked by stakeholders and adopted by our CCG to be rolled out in a big scale**, having looked at the overall benefits of this innovative, cost-saving and effective model of care delivery.
7) Can be **adopted by any Trust-CCG** very easily.

CONCLUSIONS:

- Our initial Pathfinder project extended to current DiCE model has been praised for its simplicity and effectiveness and can be adopted by any CCG - patient is at the heart of service delivery with GP/PN up-skilling and year on year excellent feedback from CCG.
- It is a cost-effective model liked by stakeholders and could change how chronic disease is managed in future.

- Thank you!