

ABCD Spring Meeting National Insulin Pump Audit

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On behalf of implementation group

Motivation

- Why perform a national audit on Insulin Pump use?
- Has one been performed previously?
- Examine the current level of insulin pump use
- Compare national picture against the NICE recommendations.
- Who do we compare internationally?

Background

- NHS IC was commissioned to audit new technologies, including insulin pump use in England in 2009
- Despite NICE guidance in 2003 and 2008, no systematic data was being routinely collected.
- Diabetes Health Intelligence undertook the audit, reported 2010.

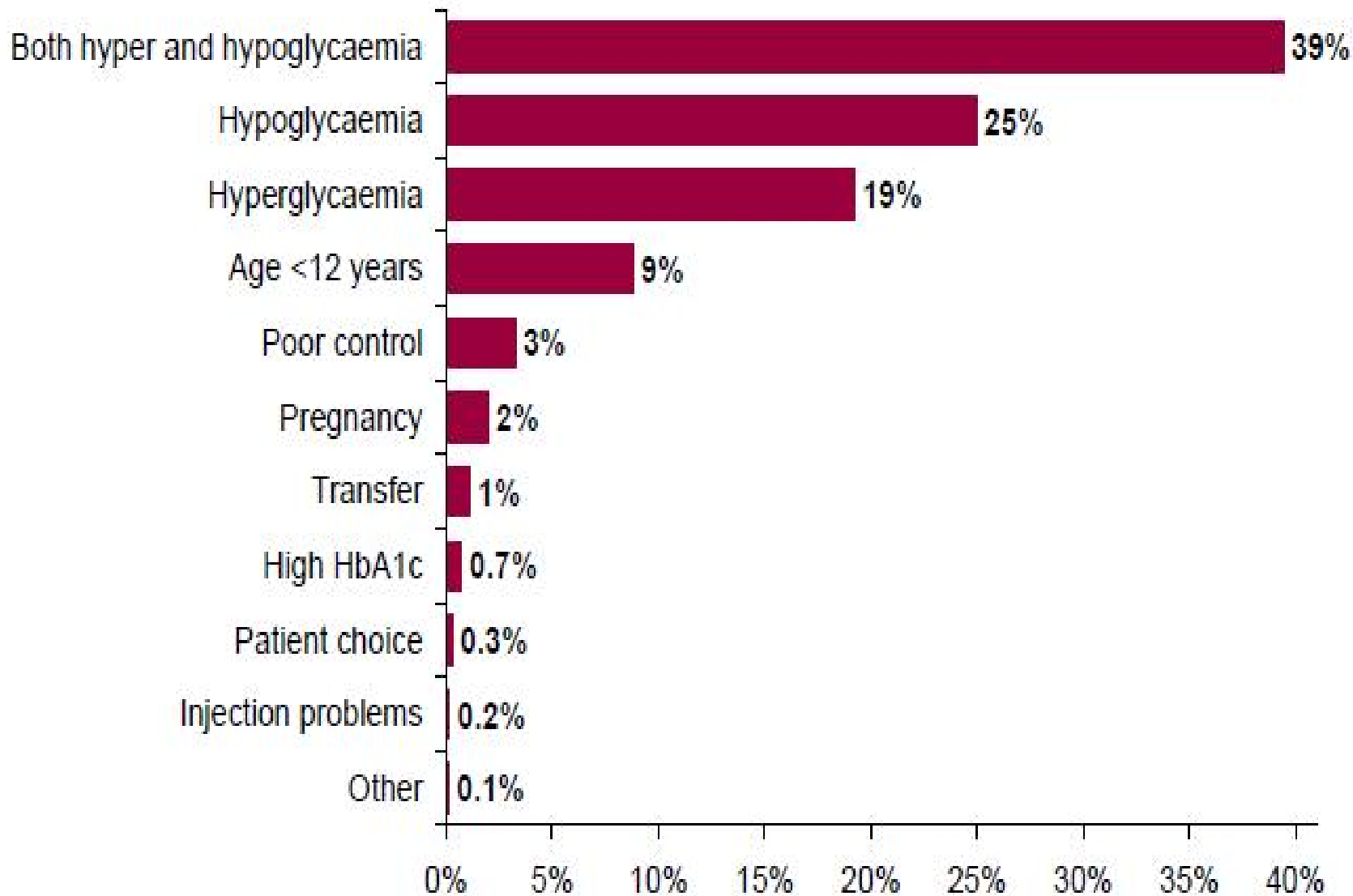
Findings of 2010 Audit

- Paediatric pump care predominantly provided by secondary and tertiary centres.
- Adult pump care more disparate, involving other agencies including pump companies and PCTs
- Data obtained from only half of units providing a service
- 8% of children and 2% of adults with T1DM were using pumps in this audit

Findings of 2010 Audit

- The majority of units were providing a pump service to a small number of patients
- A considerable proportion of users had started on a pump within the last 2 years.
- NICE recommended pump use in those not achieving target HbA1c on MDI regime, or recurrent severe hypoglycaemia- the audit showed

Reason for starting insulin pump therapy



Present State

- Given the findings in the 2010 audit and the clear need to capture systematic data – a further audit was suggested.
- Dr. Ian Gallen proposed a national audit
- Dr Rowan Hillson – National Clinical Director supported this
- With help of ABCD, Diabetes UK and JDRF providing joint funding, project out to tender.

2012 Service Level Audit of Insulin pumps in the UK

- Tender was won by a collaborative bid by adult and paediatric diabetes consultants in Cheshire and Merseyside.
- Team formed an Expert Reference group to develop the audit metrics.
- Steering committee oversaw the project and are responsible for reporting to the funding agencies



Audit Aims

- Number of CSII starts and follow up
- Investigate service provision c.f. national standards (& help define these)
- Availability and use of CGMS
- Geographical variations and equity of access
- Support expansion of pump services and informed commissioning

Methods

- Audit metrics defined by:
 - National guidance (e.g. NICE)
 - Requirements of tender
 - Feedback from patients and patient groups
 - Expert opinion (NDIS, CSII stakeholder groups)
- Translated into DiabetesE, web-based format-data entry tool
- Metrics picked + prioritised to reduce workload
- Completed contact list of CSII leads (Adult and paediatric for UK)

Key Milestone	Date
Agree the metrics for the audit	30.11.2011
Software requirements document compiled by Innove and Innove Solutions	31.12.2011
Establish audit lead for all eligible sites	06.01.2012
Software requirements document approved by ERG	13.01.2012
Software development complete	30.03.2012
Pilot site testing	27.04.2012
Refine and release software	25.05.2012
Service level audit	06.2012
Data analysis complete	28.09.2012
Collate results, produce final project report, draft recommendations and draft quality standards	12.2012
Present at Diabetes UK	14.03.2013

Progress

- Service audit completed on time
 - First paper about to be submitted for peer review
- Patient audit open and on going
 - Closing date for submitting data: April 30th 2013*

NICE Guidance

- TA 151 2008
- Type 1 DM
 1. Disabling hypos despite optimized MDI
 2. HbA1c 8.5%
- Provided by trained healthcare professionals
- Patients should have structured education

Potential Pump Users

- NICE estimate approximately 12% of adult type 1 patients will meet criteria

<http://www.nice.org.uk/media/87F/E2/InsulinPumpsToolDevelopmentUpdate.pdf>

Adults

	No of sites	%	Non participating sites	Total No sites	No of pumps
England	147	97.4	4	151	11985
Scotland	13	100	0	13	678
Wales	13	100	0	13	578
N Ireland	5	83.3	1	6	187
Total	178	97.3	5	183	13428

Adult Data

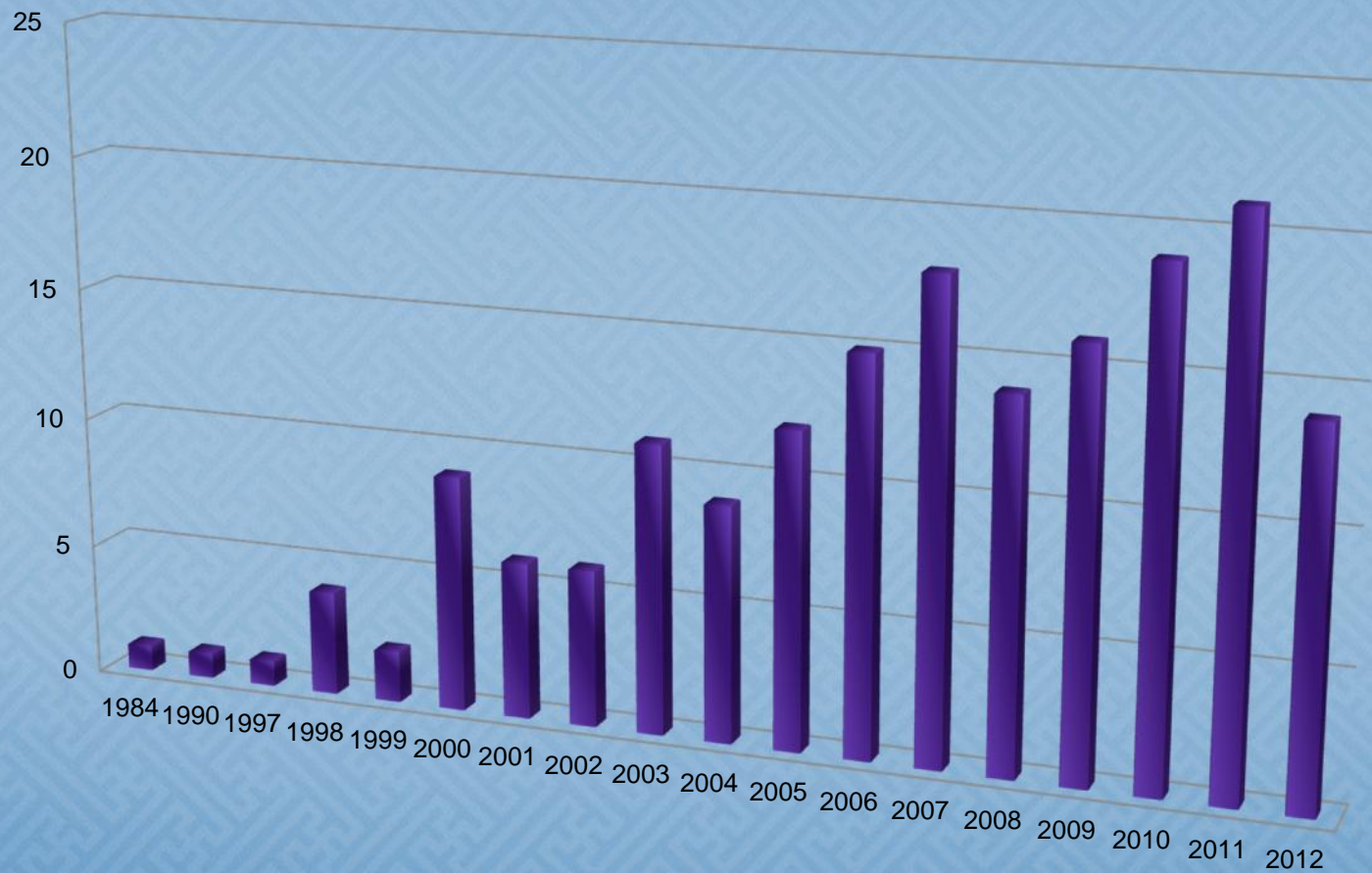
- Estimate 221,000 patients with type 1 DM
- 6% treated with insulin pumps

<http://www.diabetes.org.uk/documents/reports/diabetes-in-the-uk-2011-12.pdf>

Adult Data

- Average number of adult pump patients per centre- 75
- Average of 14 new patients per year

Showing mean new pump starts, per centre, per year



How Do We Compare?

- Norway, Sweden, Austria, Germany > 15%
- USA > 30%
- Spain, Finland, Portugal < 5%

Pickup J. Int J Clin Pract Suppl. 2011 Feb;(170):16-19.

Why Do We Lag Behind?

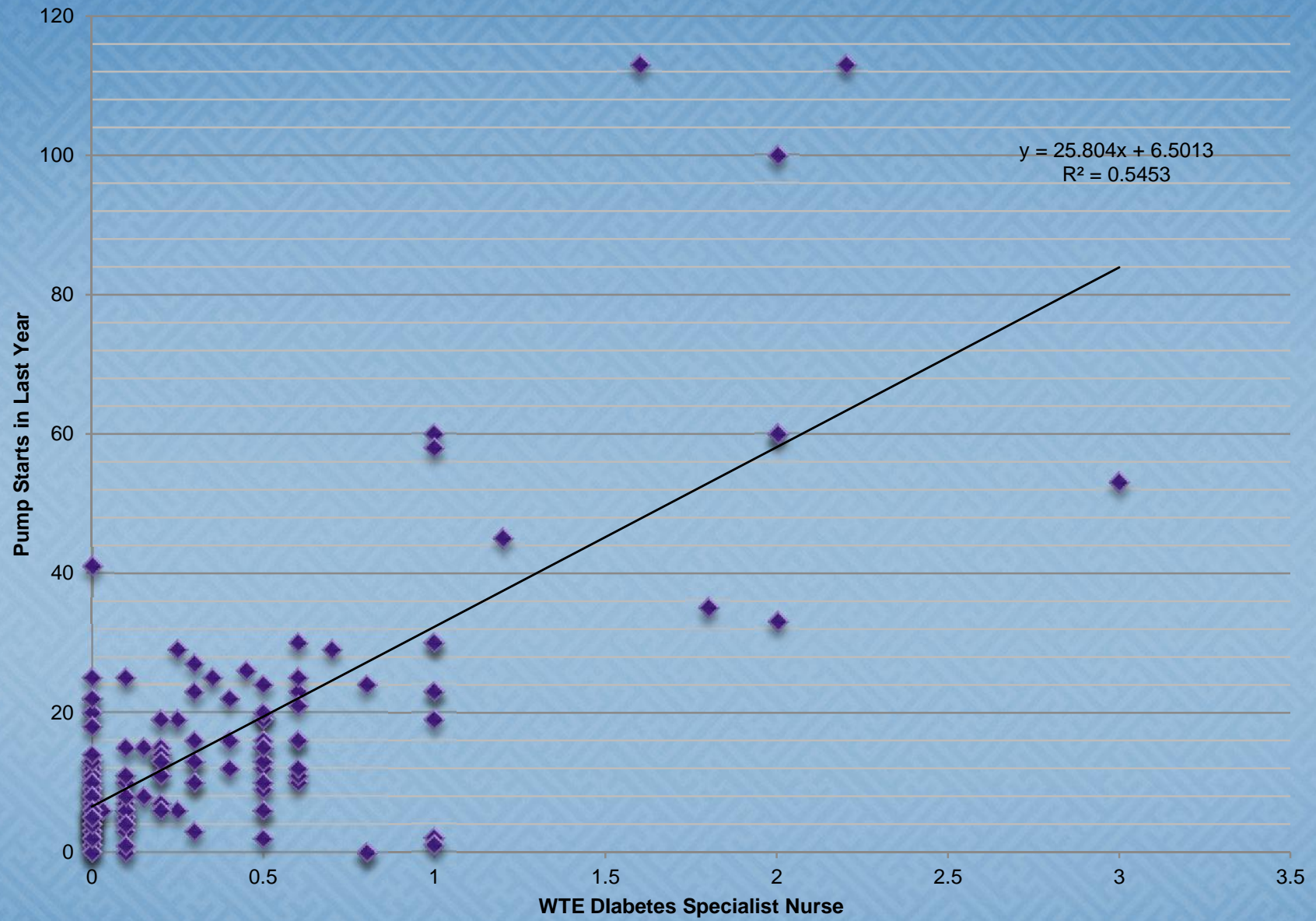
- Funding
- Staffing
- Training
- Attitude
 - Medical
 - Other HCP
 - Patient

Funding

- 93% of centres have automatic approval for users meeting NICE criteria
- Funding declined in 5% of centres for patients who fulfill NICE criteria
- 18% of centres have a fixed annual number

Staffing

- Consultant 1.03 session funded
- DSN 0.64 WTE funded
- Dietician 0.32 WTE funded
- Psychologist 0.32 WTE funded



Staff Training

HEALTH CARE PROFESSIONAL EDUCATION	No. of Sites	UK Average	% Yes	% No	% Don't Know	% N/A
Enter the number of consultants who deliver CSII services who have attended a formal CSII training course	166	1				
Enter the number of DSNs who deliver CSII services who have attended a formal CSII training course	167	2				
Enter the number of dietitians who deliver CSII services who have attended a formal CSII training course	166	1				
Enter the number of dietitians who deliver CSII services who have been trained in carbohydrate counting	167	1				

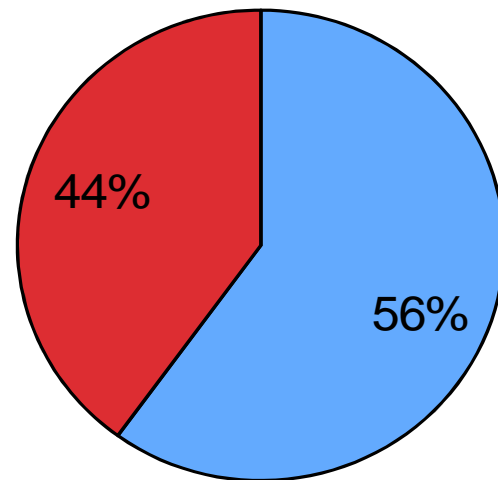
Patient Training

- 40% of centres have access to or run a CSII structured education programme
- 72% of centres use company representatives, at least in part, for patient training

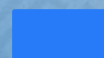
Which of the following members of staff train adult patients on how to use their CSII? (Select all that apply)	Centres (n)	Yes	No
Consultant	165	19%	80%
DSN	172	97%	2%
Dietician	168	42%	57%
Pump company representative	170	72%	26%

Continued Pump Therapy

Trained By Company



N = 48



Continued



Discontinued

Patient Support and Inpatient care

- Out of hours technical support provided by companies in 92% of centres
- Out of hours clinical support provided, in part, by the companies in 43% of centres
- 37% of centres have a policy on inpatient care
- 74% of centres allow CSII users to self manage

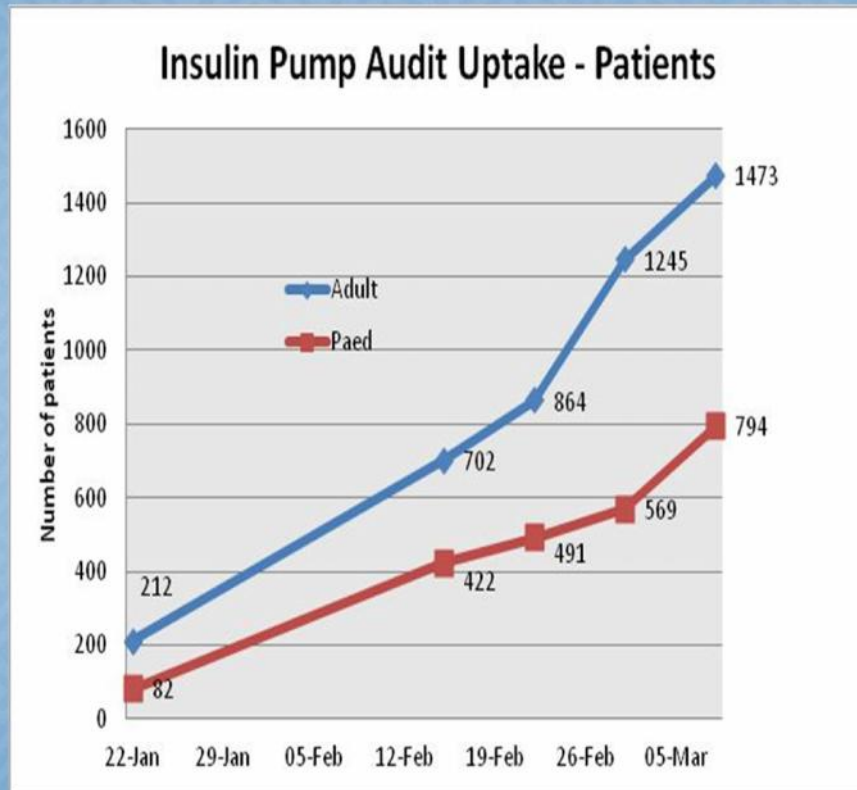
cGMS

- Available at 83% of pump centres
- Average number of patients in past 12 months-
22
- Funding an issue!
 - 13% of centres have automatic funding

Recommendations

- Use your data vs. national average to guide discussions with commissioning bodies
- Increase in paid DSN time
- Use the pump companies to train us not our patients
- Develop in-patient guidelines (nationally?)
- Develop self-management guidelines
- CGMS use needs support and education too

Patient Level Audit



ADULTS	Service Audit	Patient Audit	%
England	11985	1348	11.2%
Northern Ireland	187	0	0.0%
Scotland	678	14	2.1%
Wales	578	111	19.2%
TOTAL	13428	1473	11.0%

PAEDIATRICS	Service Audit	Patient Audit	%
England	4447	620	13.9%
Northern Ireland	159	57	35.8%
Scotland	251	0	0.0%
Wales	237	117	49.4%
TOTAL	5094	794	15.6%

Thank You

Questions?