

Perioperative Diabetes Service for Elective Surgery

PRE-OP TO DISCHARGE

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Perioperative Diabetes Service for Elective Surgery PRE-OP TO DISCHARGE

Our patient referrals span the South West from Penzance to Taunton

Set up 2008-2009 with one full time Diabetes Specialist Nurse and one full time Diabetes Support Assistant providing an autonomous nurse led service

Initial set up cost of service £40,000

Referral via two pre-assessment areas

DSN attends all 3 day of surgery wards daily

Follow up of planned in-patients post-operatively until discharge

Covering 15 Surgical Specialities

The Service Covers 15 Specialities

2018	Total referrals	55-70/month on average
Breast Surgery	21	
Colorectal	45	
ENT	38	
Nephrology	5	
General surgery	18	
Neurosurgery	45	
Gynaecology	47	
Max Fax	34	
Orthopaedic	127	
Vascular	70	
Plastic surgery	30	
Upper GI	70	
Urology	137	
Endoscopy (GA pts)	16	
REI (GA)	3	

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Aims:

Facilitate communication between Healthcare Professionals

Reduce length of stay

Increase Day case rates

Reduce cancellations

Improve patient safety through staff and patient education

Proven successful with significant savings.

Trust saving: Bed days alone: £250,000

Length of stay reduced 0.34 days

Day case rates increased by 34.8%.

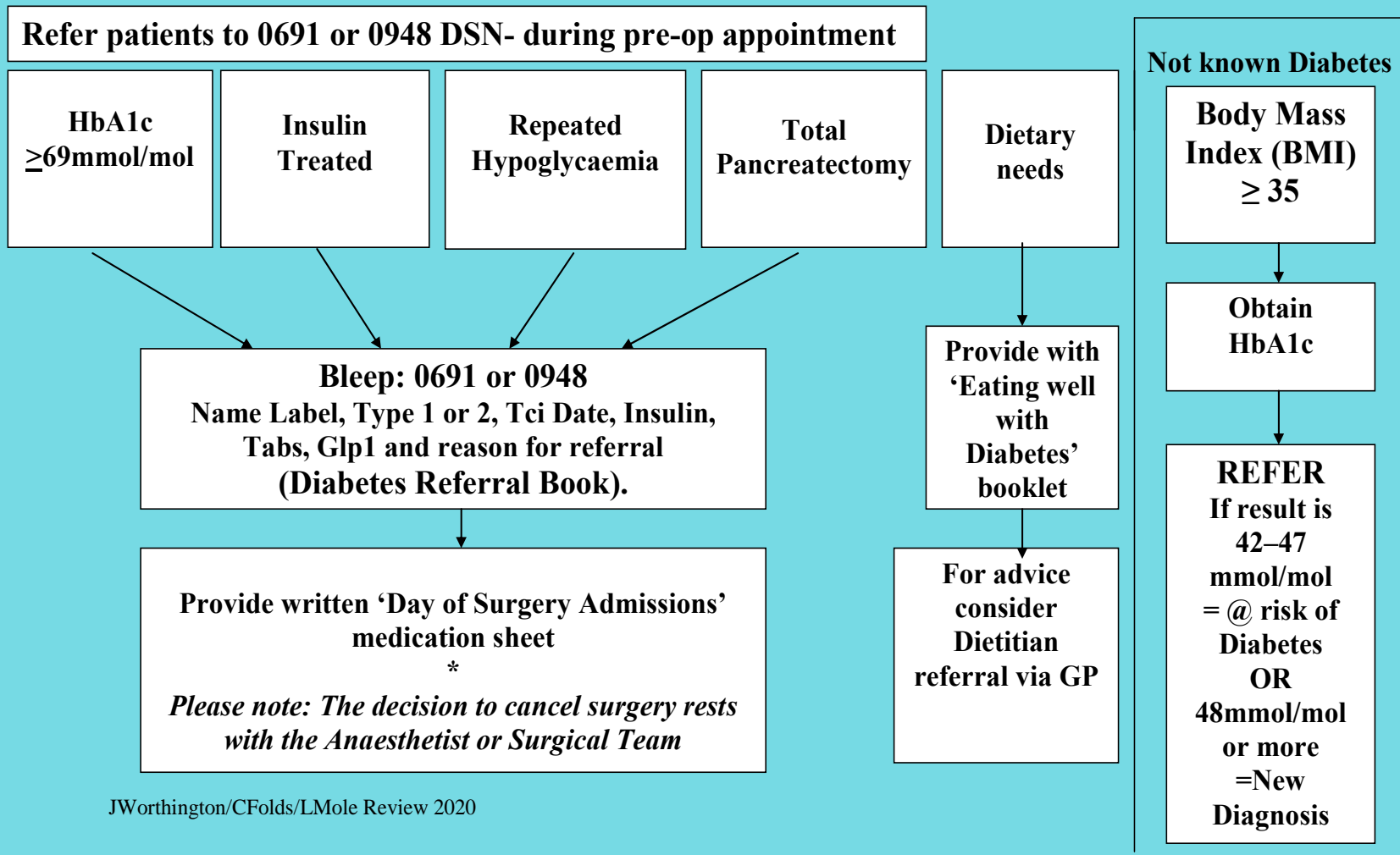
Discontinued due to lack of funding Nov 2009

Re-introduced 2013

Following previous referral criteria

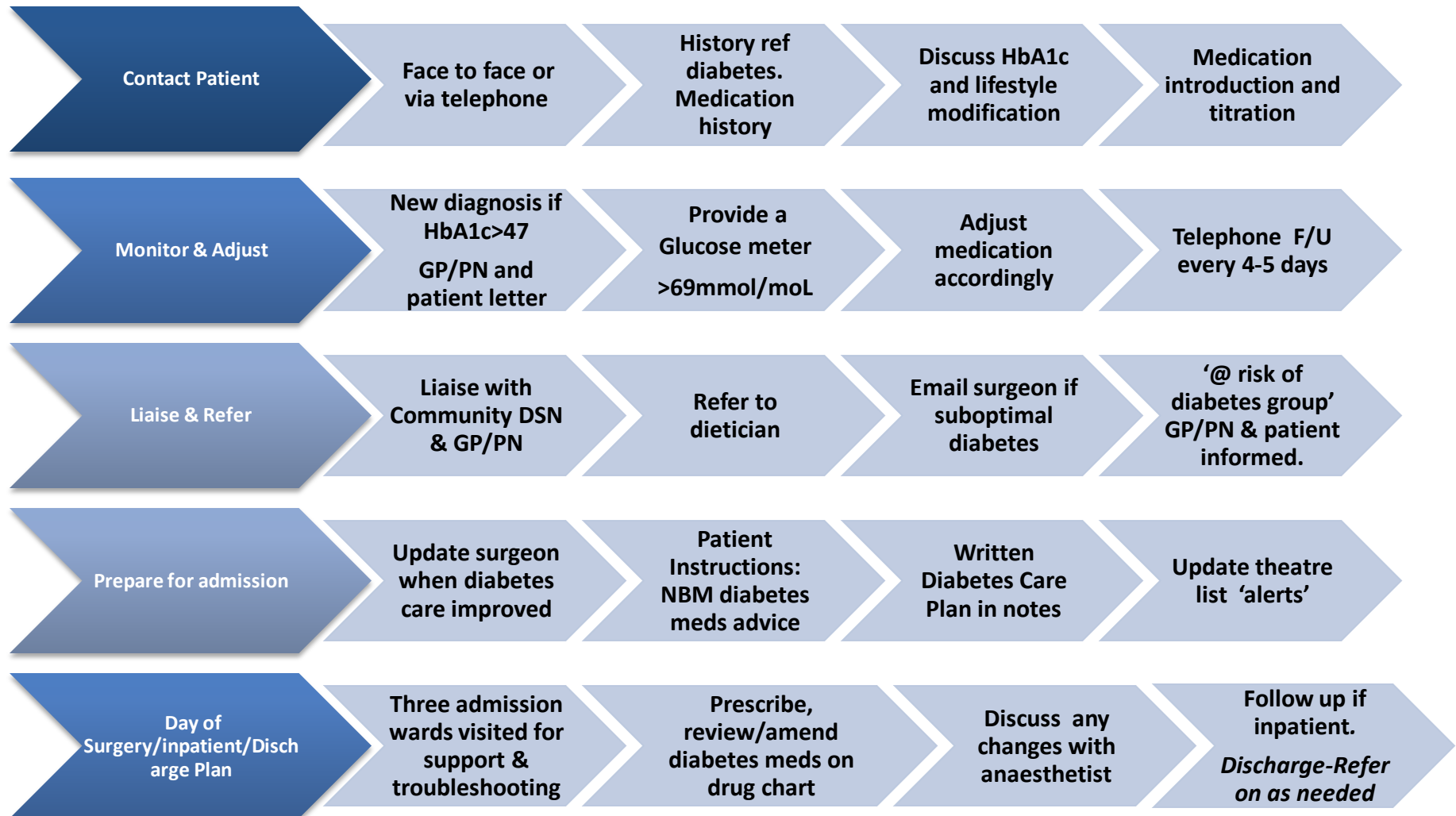


Referral Criteria to Diabetes Team during Pre-Operative Assessment



Perioperative Diabetes Service for Elective Surgery

Pre-op to discharge



An evolving service

2013 Referrals

Number of patients	553
HbA1c >100mmol/mol	48
HbA1c 90-99mmol/mol	35
HbA1c 80-89mmol/mol	71
HbA1c 70-79mmol/mol	112
HbA1c 59-69mmol/mol	111
HbA1c <59mmol/mol	170
Number of patient contacts	2305

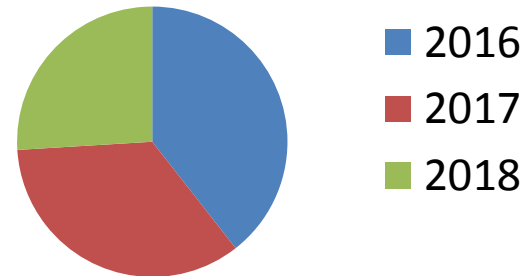
2018 Referrals

Number of patients	716
HbA1c >100mmol/mol	40
HbA1c 90-99mmol/mol	52
HbA1c 80-89mmol/mol	71
HbA1c 70-79mmol/mol	124
HbA1c 60-69mmol/mol	128
HbA1c <59mmol/mol	301
Number of patient contacts	3553

Pre-assessment: Identifying risks for surgery: BMI >35

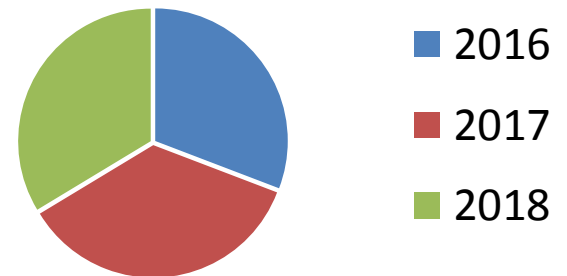
2016 New diagnosis 41
2017 New diagnosis 36
2018 New Diagnosis 27

New diagnosis



2016 Identified at risk of diabetes 55
2017 Identified at risk of diabetes 75
2018 Identified at risk of diabetes 71

At Risk of Diabetes



Cost of HbA1c £2.30

Extra night stay approx £250 - £300

Development of Medication Advice Sheets for Patients

1. Day of surgery written medication advice:
Tablets Glp1 and Insulin advice sheets
2. Colonoscopy: Type 1
3. Colonoscopy: Type 2 Tablets /GLP1/Insulin
4. Three week liver reducing diet: Tablets /GLP1/ Insulin
5. Endoscopy: Tablets/GLP1/Insulin

Insulin available May 2019

	Rapid acting	Short acting	Intermediate acting	Long acting	Mixed
Insulin name	Fiasp Apidra Novorapid Humalog Lispro 100 units/ml & 200 units/ml strengths available	Actrapid Humulin S Insuman Rapid Hypurin Porcine Neutral <i>(Hypurin Bovine Neutral supply will end June 2019)</i>	Insulatard Humulin I Insuman Basal Hypurin Porcine Isophane <i>Hypurin Bovine Prolamine Zinc supply will end Oct 2019)</i>	<ul style="list-style-type: none"> ★ Levemir (Detemir) ★ Lantus (Glargine) ★ Abasaglar ○ Tresiba (Degludec) 100 units/ml & 200 units/ml strengths available ○ Toujeo (see box below) 	<ul style="list-style-type: none"> ❖ Novomix 30 ❖ Humalog Mix 25 ❖ Humalog Mix 50 Humulin M3 Insuman Comb 25 Insuman Comb 50 Hypurin Porcine 30/70 Mix <i>Insuman Comb 15 (not on formulary)</i>
When to take	<ul style="list-style-type: none"> • With meals (& with snacks, for those who carbohydrate count) • Take with 1-2x day intermediate / long acting insulin • For STAT / PRN doses • In insulin pumps 	<ul style="list-style-type: none"> • Give 15-30 minutes before meals 2-3x day • With 1-2x day intermediate / long acting insulin • For STAT / PRN doses • Use for IV insulin infusions 	<p style="text-align: center;">IMPORTANT MIX BEFORE USE</p> <ul style="list-style-type: none"> • Give 1-2x day • Can also be given with rapid / short acting insulin +/- diabetes tablets • Continue with IV insulin 	<ul style="list-style-type: none"> ★ • Give 1-2x day on it's own, or with rapid / short acting insulin and/or with diabetes tablets • Continue with IV insulin ○ • Tresiba & Toujeo are given once daily only • Continue with IV insulin 	<p style="text-align: center;">IMPORTANT MIX BEFORE USE and offer supper, to lessen risk of hypoglycaemia</p> <ul style="list-style-type: none"> ❖ Give <u>with</u> breakfast and evening meal Give 10-20 minutes before breakfast and evening meal
Action	Onset within 15 minutes Duration 3-5 hours	Onset 30-60 minutes Duration 5-8 hours	Onset 1-2 hours Duration 11-24 hours	<ul style="list-style-type: none"> ★ Onset 1-2 hours Duration up to 24 hours 	<ul style="list-style-type: none"> ❖ Onset 10-20 minutes Duration 10-24 hours
COMBINED INSULIN & GLP-1 PREPARATION XULTOPHY - combination of Liraglutide (Victoza) and Degludec (Tresiba) Given once daily				<ul style="list-style-type: none"> ○ Onset 30-90 minutes Duration > 42 hours 	<ul style="list-style-type: none"> ○ Onset 30-60 minutes Duration 10-24 hours
(EU wide) STANDARD INSULIN STRENGTH is U100, which has 100 units per ml Below are NEW 'higher than standard strength' insulins available: U300 (300 units per ml) TOUJEO in Solostar (1 unit increments) pre-filled disposable pen & U300 (300 units per ml) TOUJEO in Doublestar (2 unit increments) pre-filled disposable pen U200 (200 units per ml) HUMALOG in Kwikpen pre-filled disposable pen U200 (200 units per ml) TRESIBA in Flextouch pre-filled disposable pen U500 (500 units per ml) HUMULIN R in Kwikpen pre-filled disposable pen. Unlicensed product These MUST be initiated by Diabetes Consultant or SpR for Diabetes (bleep 81444) Refer all patients to diabetes team when in hospital (bleep 0989, Tel 30170)				<p style="text-align: center;">BIOSIMILAR INSULIN</p> 'Biosimilar medicines are biological medicines that are similar to a medicine that has already been authorised to be marketed in the EU (the reference medicine), with respect to quality, safety and efficacy'. There is currently only one available: A version of insulin Lantus: ABASAGLAR - via Kwikpen and 3ml penfills (see long acting column above)	

Reference: Del Prato S, et al. New forms of insulin and insulin therapies for the treatment of Type 2 diabetes. Lancet Diabetes Endocrinol 2015; 3: 638-52
 British National Formulary (BNF) 76 September 2018 - March 2019

Conclusion

Coordination

Communication - written and verbal

Cooperation – patient and staff

Collaboration – multi-disciplinary

All the above are needed to facilitate the Perioperative Service for elective surgery Diabetes patients.

A recent GIRFT meeting (Get it Right First time) confirmed that in Plymouth having diabetes does not increase length of stay compared to non diabetes patients undergoing elective surgery.





Any Questions?

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