

6th ACG System Webinar - Streamlining the peri- operative pathway based on patient clinical need

4 December 2024



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- ▶ Population Health Consultant, Graphnet

National Perioperative Care Programme Deliverables

Improve perioperative pathway design and delivery

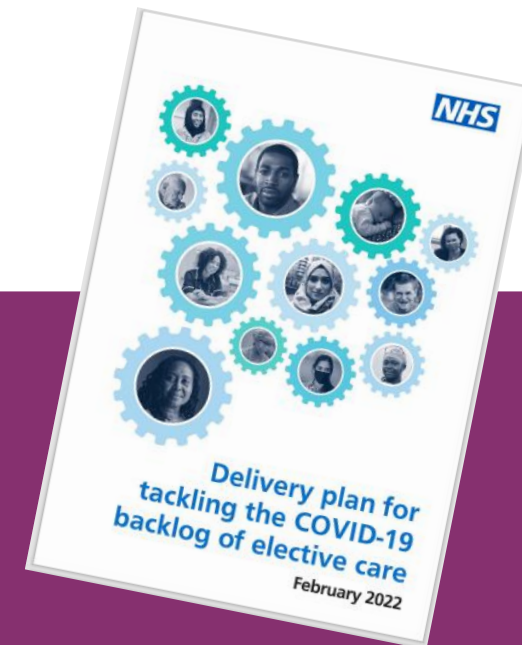
- Early screening
- Patient-centred preoperative assessment
- Universal, targeted and specialised optimisation
- Surgery schools
- Maximising day surgery
- Maximising safe use of High Volume, Low Complexity lists and elective hubs

Improve perioperative care quality

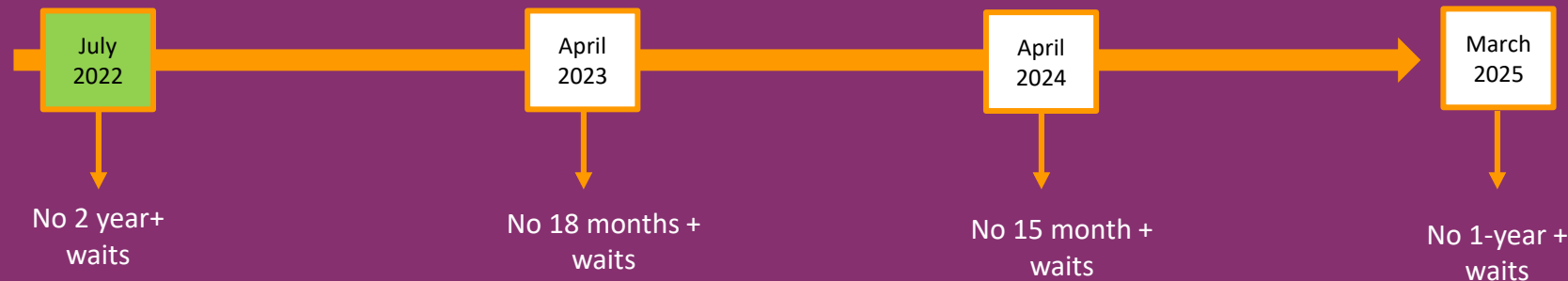
- Improve compliance with enhanced recovery programme
- Enhance perioperative care
- Innovation in perioperative care
 - Virtual wards and remote monitoring
 - Data driven approaches (AI etc)
- Formal evaluation

Inclusive approach

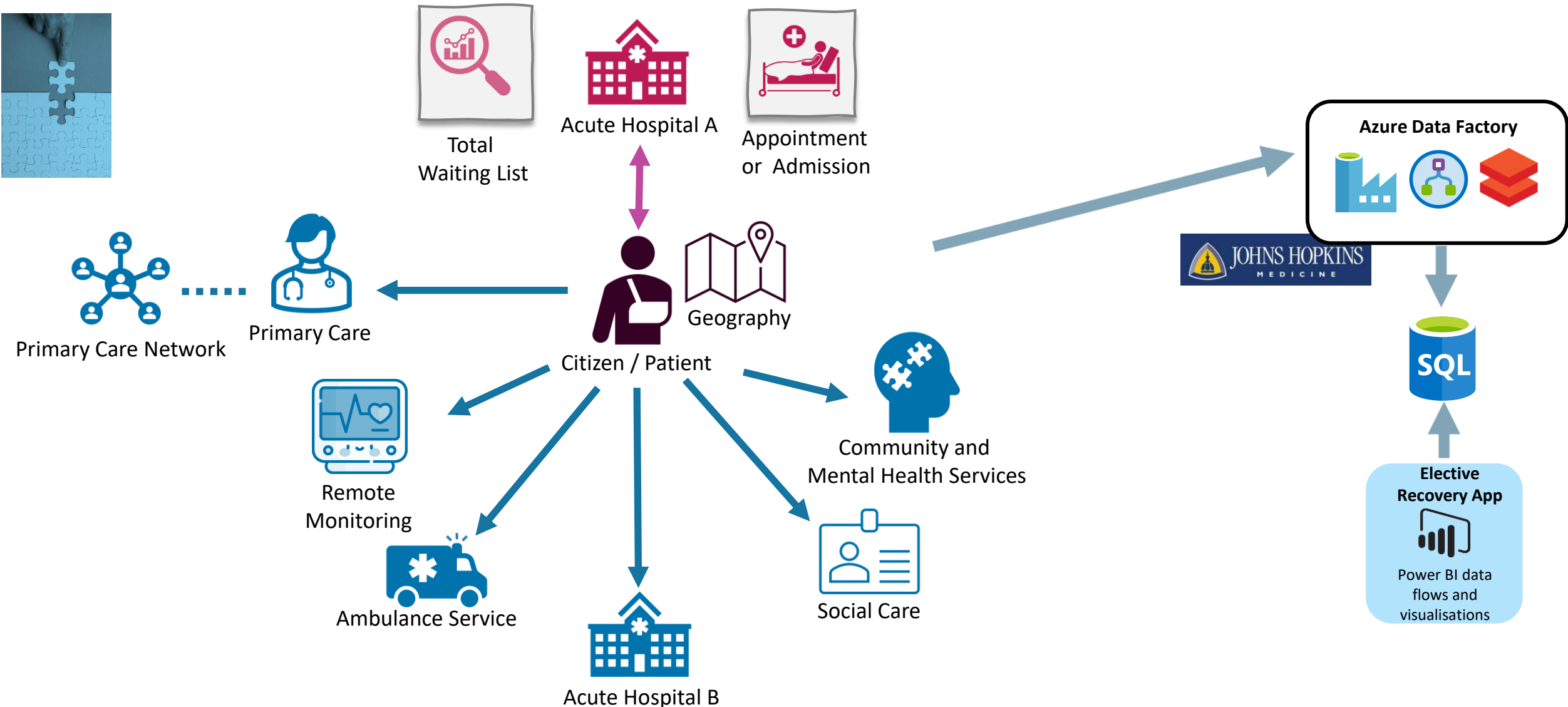
- Children and Young People
- Obstetrics
- Elective and emergency pathways



Into the third year of a 3-year recovery plan...



Shared Care Record and Population Health



Rich, Longitudinal Record for every Patient



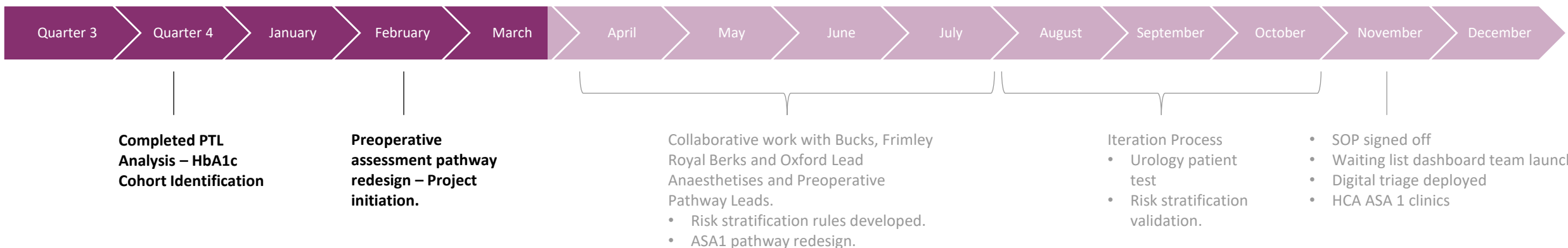
Demographics	Clinical Data	Activity	Johns Hopkins	Waiting List
Age, sex, ethnicity	Clinical Conditions Primary Care (Read, CTv3 and SNOMED)	GP Appointments, Encounters and Events	Patient Need Group and Resource Utilisation Bands	Hospital Trust and Site
Residence and Neighbourhood	Lifestyle markers: BMI, Smoking status, Alcohol Consumption ...	A&E Attendances, Outpatient Appointments, Inpatient Admissions	Probability of hospitalisation and extended hospital stays	Added to list date / total time waiting, priority, booking status
Deprivation (Index of Multiple Deprivation)	QoF Registers Local Registers	111 Queries, 999 Calls	Mortality Risk Score	Outpatient or inpatient wait
Live alone, carer	Electronic Frailty Index: score, deficits and category	Contacts with Community Services. Mental Health Services and Social Care	ACG Conditions and Expanded Diagnostic Clusters	Specialty, Procedure, Consultant
"Deceased"	Care Plans			Multiple / duplicate waiting list entries
	Test results e.g. Blood Pressure, HbA1c, Hb, Cholesterol...			Patient contact details
	Medications; repeats and acutes			
	Risk scores; QRisk, CHA2DS2-Vasc, Frax...			

Trailblazing Project: Preoperative Assessment Pathway Redesign

Timeline and Milestones

2022

2023

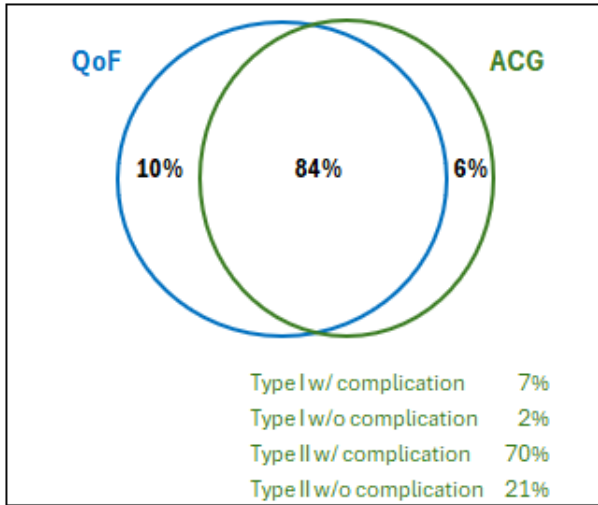


- Implement the use of the Waiting List Dashboard to improve patient experience in pre-op services
- Embed the use of the Waiting List Dashboard as BAU in perioperative pathway
- Increase quality of decision making in pre-op booking service
- Increase productivity of nursing staff
- Use the PDSA cycle model to test and validate the robustness of the Waiting List Dashboard

- Preoperative assessment team and BHT Trust were early adopters of the Waiting List Dashboard
- Matching staffing to patient needs
- Customisation and adaptability of the tool to meet the need of the pre-operative assessment (POA) team
- Required changes to current clinics and templates
- Embedding the digital triage into the preoperative assessment pathway

QoF vs ACG Groupings

e.g. Diabetes



Additional patient insight used e.g.

HbA1c (>69 mmol/mol)

BMI (>=40 kg/m²)

BP (> 160 / 110 mmHg)

Etc

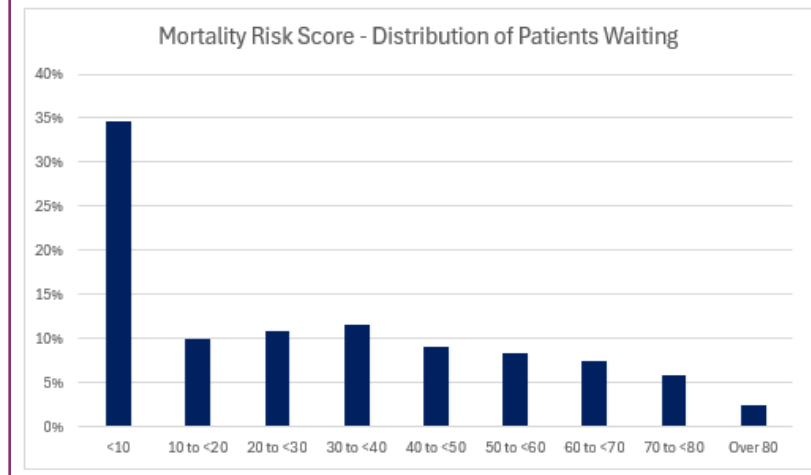
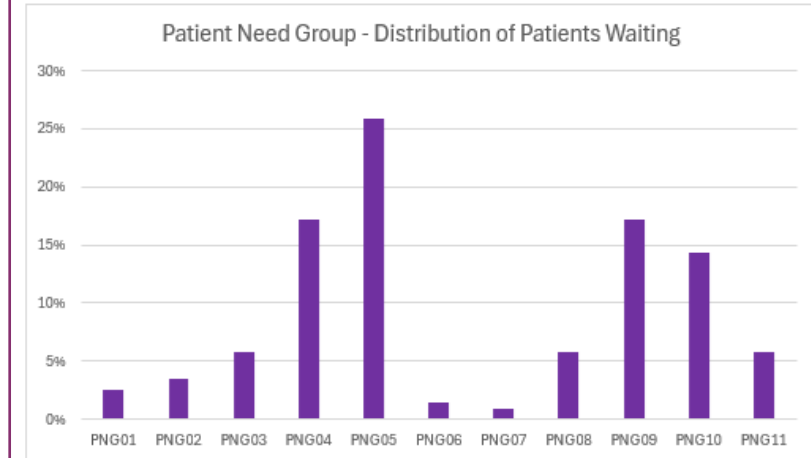
Inform Disease Groupings

SYSTEM	GOLD	GREEN	ORANGE	RED
Cardiovascular	Patients not coded as green, orange, or red.	- Hypertension diagnosis with latest BP in the last 12 months <= 160/110	- Hypertension diagnosis with latest BP in the last 12 months > 160/110 - Cardiac Arrhythmia diagnosis - Atrial fibrillation diagnosis - Vertiginous syndrome diagnosis - Heart murmur diagnosis - Peripheral vascular disease diagnosis - Mitral heart disease	- Acute myocardial infarction recorded - Cardiac arrest recorded - Congestive heart failure diagnosis - Heart failure diagnosis
Respiratory	Patients not coded as green, orange, or red.	- Asthma without status asthmaticus diagnosis	- COPD diagnosis - Other respiratory disorder diagnosis - Sleep apnoea diagnosis	- Chronic respiratory failure diagnosis - Asthma with status asthmaticus diagnosis
Neurological	Patients not coded as green, orange, or red.	- Depression diagnosis - Anxiety diagnosis - Neuroses diagnosis	- Seizure disorder diagnosis - Bipolar disorder diagnosis - Schizophrenia diagnosis	- Stroke/TIA recorded - Dementia diagnosis

Reduce SNOMED Searches

The screenshot shows the SNOMED CT Browser interface with the search term 'sleep apn'. It displays 93 matches found in 0.032 seconds. The results are categorized by concept type, with 'disorder' selected. The 'Parents' section shows a hierarchy: Apnea (finding) -> Disorder of respiratory system (disorder) -> Sleep disorder (disorder). The selected concept is 'Sleep apnea (disorder)' (SCTID: 73430006), with its definition and associated terms listed.

Additional Insight – this was a first for the Acute Trust



Trailblazing Project: Preoperative Assessment Pathway Redesign

Timeline and Milestones

2022

2023



Completed PTL
Analysis – HBA1C
Cohort Identification

Preoperative
assessment pathway
redesign – Project
initiation.

**Collaborative work with Bucks, Frimley
Royal Berks and Oxford Lead
Anaesthetises and Preoperative
Pathway Leads.**

- Risk stratification rules developed.
- ASA1 pathway redesign.

Iteration Process

- Urology patient test
- Risk stratification validation.

- SOP signed off
- Waiting list dashboard team launch
- Digital triage deployed
- HCA ASA 1 clinics

- Implement the use of the Waiting List Dashboard to improve patient experience in pre-op services
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➤ Operational data

- PTL National Minimum Dataset – surgical waiting lists
- PAS system data- hospital clinic data

➤ Clinical data

- Shared Care Record
- Colour coded comorbidities in GP record
- Surgical complexity – AXA/BUPA PPP

➤ Risk scoring algorithm

- POA tested telephone screening algorithm
- Locally Peer reviewed
- Underpinned by National guidelines, GIRFT targets etc

ASA 1, fit and well	Golden
ASA 2, well controlled	Green
Face to Face Nurse POA	Orange
High risk, likely Anaesthetic review	Red
Very complex, end of life, older, frail, multi/co-morbidities	Purple

Early Optimisation and Pre-Operative Assessment

Early Optimisation Alerts

CATEGORY	EARLY OPTIMISATION	COMPLEX PATIENTS	VERY COMPLEX PATIENTS
Smoking	- Current smoker	- Current smoker	
Alcohol	- Greater than 14 units per week	- Greater than 14 units per week	- Greater than 35 units per week
BMI	- Less than 17.5 Kg/M ² - Greater than 27.5 Kg/M ² (BAME) - Greater than 30 Kg/M ² (Any other or ethnicity not known)	- Less than 17.5 Kg/M ² - Greater than 27.5 Kg/M ² (BAME) - Greater than 30 Kg/M ² (Any other or ethnicity not known)	- Greater than 45 Kg/M ²
Blood Pressure	- Greater than 140/90 mmHg AND age less than 80 - Greater than 150/90 mmHg AND age 80 or above	- Greater than 140/90 mmHg AND age less than 80 - Greater than 150/90 mmHg AND age 80 or above	
Health Check	- No primary care health check in the last 5 years AND No QOF long term conditions AND aged 40-74		
Anaemia	- Latest Hb in the last 12 months less than 130 g/L	- Latest Hb in the last 12 months less than 130 g/L	- Latest Hb in the last 12 months less than 100 g/L
Diabetes	- Latest HbA1c in the last 12 months greater than 54mmol/mol	- Latest HbA1c in the last 12 months greater than 54mmol/mol	- Latest HbA1c in the last 12 months greater than 54mmol/mol
Opiates	- Opioid prescription in the last 12 months	- Opioid prescription in the last 12 months	
Major Drug		- 5 or more major drugs prescribed in the last 12 months* (see star list below).	
Age			- Age 90+ - Age 80+ AND 5+ QOF LTCs - Age 80+ AND severely frail - Age 80+ AND patient need group (PNG) greater than 10 out of 11
Mortality risk score			- Mortality risk score greater than 80

Patient groupings are not mutually exclusive

Pre-operative Assessment Triage

SYSTEM	GOLD	GREEN	ORANGE	RED
Cardiovascular	Patients not coded as green, orange, or red.	- Hypertension diagnosis with latest BP in the last 12 months <= 160/110	- Hypertension diagnosis with latest BP in the last 12 months > 160/110 - Cardiac Arrhythmia diagnosis - Atrial fibrillation diagnosis - Vertiginous syndrome diagnosis - Heart murmur diagnosis - Peripheral vascular disease diagnosis - Mitral heart disease	- Acute myocardial infarction recorded - Cardiac arrest recorded - Congestive heart failure diagnosis - Heart failure diagnosis
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Neurological	Patients not coded as green, orange, or red.	- Depression diagnosis - Anxiety diagnosis - Neuroses diagnosis	- Seizure disorder diagnosis - Bipolar disorder diagnosis - Schizophrenia diagnosis	- Stroke/TIA recorded - Dementia diagnosis
Haematological	Patients not coded as green, orange, or red.	- Latest Hb in the last 12 months less than 120 g/L and 120 g/L	- Other haematologic disorders - haemophilia disorder diagnosis - Latest Hb in the last 12 months less than 110 g/L	- Sickle cell disease
Endocrine	Patients not coded as green, orange, or red.	- Diabetes diagnosis AND latest blood glucose in the last 12 months between 4 mmol/L and 10 mmol/L AND latest HbA1c in the last 3 months less than 69 mmol/L	- Hypothyroidism diagnosis - Diabetes diagnosis AND latest blood glucose in the last 12 months greater than 11 mmol/L - Diabetes diagnosis AND latest HbA1c in the last 3 months greater than 69 mmol/L	- Latest HbA1c in the last 12 months greater than 100mmol/L
GIT/GI	Patients not	- Irritable bowel	- Inflammatory bowel disease	N/A

Patient groupings are mutually exclusive

This led us to develop two dashboards

POA triage: Supporting operational teams to book safely

This report includes all waiting list entries. Please use filters to remove deceased patients from the report. Latest PTL Load Date: 22/11/2024

Pre-Operative Assessment Triage

[Show Filters](#) [Clear Filters](#) [Filters Applied](#)

Note: This report should only be used to support clinical decision making and should not be used in isolation to make clinical decisions

8,150 PATIENTS IN COHORT 8,313 NO OF WAITING ENTRIES 68 MAX WEEKS ON W/L

Consultant: NHS Number:

To select more than 1 category at a time, hold down 'Ctrl' on your keyboard whilst clicking the buttons [Exportable Data](#)

Fit and well for surgery
Medical issues, well controlled
May require nurse review
Complex Patient Alert
Unclassified

Name & NHS Number	Surgical Category	Cardiovascular	Respiratory	Neurological	Haematological	Endocrine	GIT/GU	Simple Drug Count	General	Social	Previous Anaesthetics	Triage Category	POA Date	POA Outcome	POA Clinic Code	A&E A
[Redacted]	Procedure Code Missing	Orange	Gold	Gold	Gold	Gold	Orange	Green	Red	Gold		Red		No POA Recorded		
	MAJOR	Gold	Gold	Green	Gold	Gold	Gold	Green	Orange	Gold		Orange	15/10/2024 09:15:00	Discharge	WHPRU	
	MAJOR	Gold	Gold	Gold	Gold	Gold	Gold	Green	Orange	Gold		Orange	14/10/2024 11:45:00	Discharge	WHPOG	
	MAJOR+	Gold	Orange	Gold	Gold	Gold	Gold	Gold	Red	Gold		Red	18/10/2024	Discharge	AHPRHC	
	INTER	Green	Gold	Gold	Green	Orange	Gold	Green	Red	Gold		Red				

- Copy >
- Share >
- Show data point as a table
- Set alert
- Show as a table
- Include
- Exclude
- Drill through >
- Unfreeze row headers

88%

Patient Comorbidity Details

Pre-Operative Assessment Triage Details Latest PTL Load Date: 22/11/2024

Red NHS
Triage Category

BETA

CARDIOVASCULAR

Cardiovascular	EDC: Acute myocardial infarction	EDC: Cardiac arrhythmia	EDC: Cardiac arrest, shock	EDC: Congestive heart failure	EDC: Heart murmur	QOF: Atrial fibrillation	EDC: Vertiginous syndromes	EDC: Peripheral vascular disease	SCT: Valve Disease	ACG: Hypertension	Blood Pressure Result
Red		Y		Y					N	Y	113/65 (mmHg), 04/06/2024

RESPIRATORY

Respiratory	QOF: COPD	ACG: COPD	EDC: Chronic respiratory failure	EDC: Respiratory disorders, other	EDC: Asthma, with status asthmaticus	EDC: Asthma, w/o status asthmaticus	EDC: Sleep apnea
Orange							Y

NEUROLOGICAL

Neurological	EDC: Dementia	QOF: Dementia	QOF: Stroke/TIA	QOF: Depression	EDC: Seizure disorder	EDC: Anxiety, neuroses	ACG: Depression	ACG: Bipolar Disorder
Gold								

HAEMATOLOGICAL

Haematological Category	EDC: Sickle cell disease	EDC: Hemophilia, coagulation disorder	EDC: Hematologic disorders, other	EDC: Deficiency anemias	Hb Result
Gold					145 (g/L), 28/06/2023

ENDOCRINE

Endocrine	HbA1c Result	Blood Glucose Result	EDC: Hypothyroidism	ACG: Diabetes	QOF: Diabetes
Orange	46 (mmol/mol), 25/01/2024			Y	Y

GIT/GU

GIT/GU	EDC: Inflammatory bowel disease	EDC: Chronic liver disease	EDC: Acute hepatitis	EDC: Hepatitis C	EDC: Chronic renal failure	QOF: CKD	EDC: Irritable bowel syndrome	EDC: Diverticular disease c
Gold								

SOCIAL

Social	Pregnant	Alcohol Consumption	Smoking Status
Gold			

GENERAL

General	Age	QOF LTC Count	eFICategory	Rockwood Score	Admissions	Attendances	Mortality Risk Score	ACG Conditions Count	Care Home Flag	Significant Referral Last 12M	QOF: Dementia
Red	75	5	Moderate		1	0	72	13	N	1	

Graphnet Transforming Care

← Patient Details
Latest PTL Load Date: 22/11/2024
NHS

Right Click For Pre-Op Details

DEMOGRAPHICS		ACTIVE PROBLEMS		REPEAT MEDICATIONS (LAST 12M)		LATEST TEST RESULTS																				
Attribute	Value	Date	Description	Medication Date	Medication Description	Test Type	Test Result																			
NHS Number	[REDACTED]	16/10/24	Wide excision	10/10/2024	Bisoprolol 1.25mg tablets	Blood Glucose	6.2 (mmol/l), 22/11/2022																			
Forenames	[REDACTED]	27/06/24	Rectal haemorrhage	10/10/2024	Bisoprolol 2.5mg tablets	Blood Pressure	124/84 (mmHg), 03/09/2024																			
Surname	[REDACTED]	31/05/24	Degenerative joint disease of shoulder region	10/10/2024	Edoxaban 60mg tablets	BMI	32.7 (kg/m2), 02/07/2024																			
Local Patient Identifier	[REDACTED]	08/02/24	Lymphoedema	10/10/2024	Empagliflozin 10mg tablets	Cholesterol	4.9 (mmol/l), 01/11/2024																			
DOB	[REDACTED]	08/02/24	Rectal haemorrhage	10/10/2024	Furosemide 40mg tablets	Creatinine	72 (umol/l), 01/11/2024																			
Age	[REDACTED]	08/02/24	Restless legs	01/08/2024	Ramipril 2.5mg capsules	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>BMI</p> </div> <div style="text-align: center;"> <p>CHOLESTEROL</p> </div> <div style="text-align: center;"> <p>SYSTOLIC BP</p> </div> </div>																				
Sex	[REDACTED]	08/02/24	Diverticulosis of colon	01/08/2024	Bisoprolol 1.25mg tablets	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>CREATININE</p> </div> <div style="text-align: center;"> <p>HbA1C</p> </div> <div style="text-align: center;"> <p>DIASTOLIC BP</p> </div> </div>																				
Ethnic Group	[REDACTED]	06/12/23	Blood in stool	01/08/2024	Bisoprolol 2.5mg tablets	Hover here to view test history																				
Home Phone Number	[REDACTED]	03/11/23	Localised, primary osteoarthritis of the	01/08/2024	Edoxaban 60mg tablets	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #4a7ebb; color: white;"> <th>QOF CONDITIONS</th> <th>EDCs</th> <th>ACG CONDITIONS</th> </tr> </thead> <tbody> <tr> <td>QOF Condition</td> <td>EDC</td> <td>ACG Condition</td> </tr> <tr> <td>Atrial fibrillation</td> <td>Administrative concerns and non-specific laboratory abnormalities</td> <td>Congestive Heart Failure</td> </tr> <tr> <td>Cancer</td> <td>Anorectal conditions</td> <td>Hypertension</td> </tr> <tr> <td>Heart failure</td> <td>Cardiac arrhythmia</td> <td>Low Back Pain</td> </tr> <tr> <td>Non-diabetic hyperglycaemia</td> <td></td> <td></td> </tr> </tbody> </table>			QOF CONDITIONS	EDCs	ACG CONDITIONS	QOF Condition	EDC	ACG Condition	Atrial fibrillation	Administrative concerns and non-specific laboratory abnormalities	Congestive Heart Failure	Cancer	Anorectal conditions	Hypertension	Heart failure	Cardiac arrhythmia	Low Back Pain	Non-diabetic hyperglycaemia		
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Non-diabetic hyperglycaemia																										
Mobile Phone	[REDACTED]	15/09/23		01/08/2024	Furosemide 40mg tablets																					

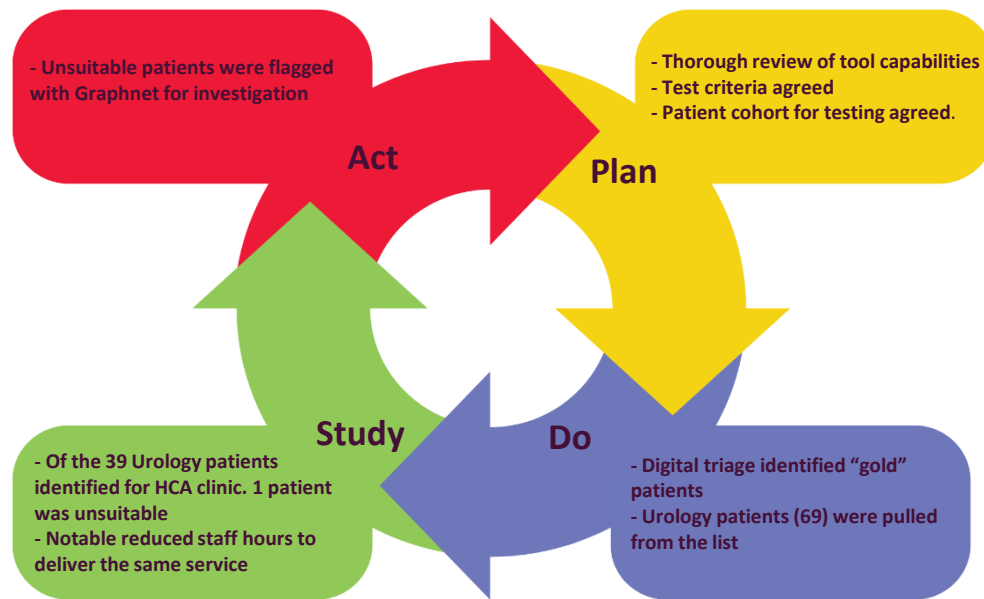
FRAILTY		SMOKING		NON REPEAT MEDICATIONS (LAST 12M)		WAITING LIST ENTRIES											
Attribute	Value	Attribute	Value	Medication Date	Medication Description	Provider	Date Added to Elective Recovery	Weeks on W/L	RTT Weeks on W/L	Consultant	Treatment Function	Procedure	Wait List Type	Booking Status	Priority	TCI Date	Pre Op Date
eFI Category	Moderate			15/10/2024	Terbinafine 1% cream	BUCKINGHAMSHIRE HIRE HEALTHCARE	15/09/2023	63		Pendse	Trauma and Orthopaedic Services	Primary prosthetic replacement of articulation of bone not using cement NEC	Admitted	Follow-up appointment not booked	Priority4		
eFI Score	0.28			04/10/2024	Spikevax JN.1 COVID-19 mRNA Vaccine 0.1mg/ml dispersion for injection multidose vials (Moderna, Inc)												
Frailty Deficits	Hypotension / syncope, Heart valve disease, Dyspnoea, Heart failure, Hypertension,			03/09/2024	Terbinafine 1% cream												
				04/07/2024	Terbinafine 1% cream												

Iteration Process to Enhance Quality Assurance

Effectiveness for identifying “Gold patients” for “Fit for surgery”

The PDSA cycles model was used for the iteration process in collaboration with Graphnet. The Trust analysed volumes of data, starting with single surgical speciality. Graphnet digital triage identified “Gold patients” on the waiting list. Gold patients need little or no intervention to prepare for surgery. Needs for this group of patients were assessed, and algorithm was continuously optimised.

PDSA Cycles Model



Aim

Identify LOW risk patients for surgery
Move resources, if any released to high-risk patient reviews

Results

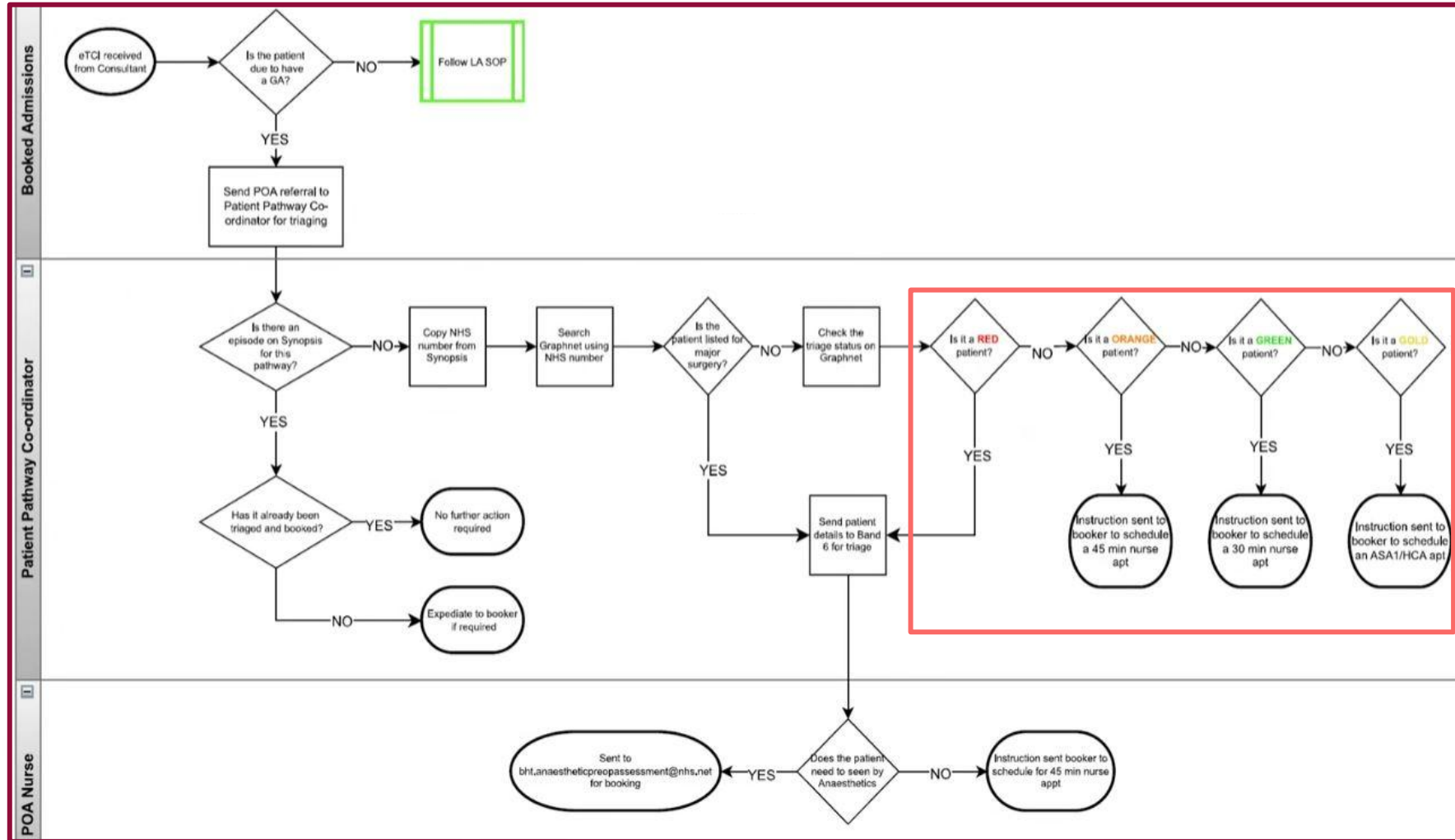
Medication count added to algorithm, Sleep apnoea a problem
Comorbidity coding > 80 % accurate
Lifestyle metrics are limiting accuracy
Reduction in unnecessary investigations

Benefits

Band 5 Nurse 45 mins to Band 3 HCA 15 min consultation
Mean sign off to surgery 18.6 to 2.3 days
Increased activity up 52%
Increased productivity 30%

New Standard Operating Procedure

Allocating the right resources help improve patient experience



Pre-Operative Assessment Triage

Making Every Contact Count

- The risk stratification rules enabled us to safely identify ASA 1 “Gold” patients. Resources now matched to patient need in this group. Costs have been reduced, clinical care improved, patient safety maintained
- Ongoing project work - we have started to match resources to green ASA 2 patients (telephone clinics) and have a high-risk patient project due to commence 2025
- Pre-Operative Assessment team have implemented the change with patient safety maintained
- Lifestyle advice ‘teachable moment’ crucial



What Has Changed

- Automated Digital triage has replaced the triage process by band 6 nurses
- ASA 1 patient clinics are fully run by HCA, band 3
- ASA 1 patients clinic slots reduced from 45 mins to 15 mins
- Reduction in unnecessary investigations, improved focus on lifestyle advice
- POA clinic capacity now matching demand

Benefits and Impact

- Allocating the right resources is crucial, improving quality of care, and patient experience
- Reducing costs: clinic capacity increased 45 % with 4 months, nurse productivity 30% increased.
- Improved patient throughput :turn around to sign off (ready for listing) Mean 18.6 days to 2.3 days
- Pool of patients ready at short notice for surgery
- Results replicated across other UK Hospital sites (Kent)
- Community of Practice to continually improve

Identifying Patients for Early Optimisation

Developed an approach to early optimisation in parallel

- Frimley Health FT developed a prehabilitation page to identify patients on the waiting list in need of early optimisation
- In November 2022, a Prehabilitation pilot was initiated with BHT, two Primary Care Networks (Chalfont and BMW), Live Well Stay Well and Graphnet with 100 patients with hypertension, obesity (BMI >35) or diabetes. The aim was to see whether patients on the waiting list with prehabilitation needs could be identified and enact a lifestyle changes on receipt of customised letter
- The project has been a catalyst for true cross-collaborative working across systems – primary care, public health and secondary care surgical services

This report includes all waiting list entries. Please use filters to remove deceased patients from the report. Latest PTL Load Date: 22/11/2024

Patient Optimisation

Note This report should only be used to support clinical decision making and should not be used in isolation to make clinical decisions

41,150 TOTAL PATIENTS ON W/L 580 PATIENTS IN COHORT 681 NO OF WAITING ENTRIES 65 MAX WEEKS ON W/L

Show Filters Clear Filters Filters Applied

Consultant: All NHS Number: All

To select more than 1 category at a time, hold down 'Ctrl' on your keyboard whilst clicking the buttons

Name & NHS Number	Major Drugs (Last 12M)	Repeat (Last 12M)	Non-Repeat (Last 12M)	Latest Opioid Prescription	Latest Anticoagulant Prescription	Hb	Hb Units & Date	HbA1c	HbA1c Units & Date	BMI	BMI Units & Date	Systolic Blood Pressure	Diastolic Blood Pressure	Blo Ur
	6 (3 Categories)	560	7			121 (g/L)	21/06/2024	45.0 (mmol/mol)	21/06/2024	41.30 (kg/m2)	02/07/2024	160	90 (mm/01/0)	
	6 (3 Categories)	63	20			135 (g/L)	24/01/2024	43.0 (mmol/mol)	24/01/2024	42.19 (kg/m2)	24/01/2024	141	77 (mm/01/0)	
	6 (4 Categories)	161	4	2024-10-11, Tramadol 100mg modified-release capsules		124 (g/L)	08/10/2024	42.0 (mmol/mol)	21/03/2024	35.20 (kg/m2)	11/10/2024	112	72 (mm/20/0)	
	8 (4 Categories)	90	20			116 (g/L)	06/08/2024	65.0 (mmol/mol)	27/06/2024	45.41 (kg/m2)	01/02/2024	125	79 (mm/01/0)	
	11 (4 Categories)	104	4	2024-11-02, Apixaban 5mg tablets		161 (g/L)	09/01/2024	36.0 (mmol/mol)	09/05/2023	37.60 (kg/m2)	19/01/2024	128	60 (mm/12/0)	

move deceased patients from the report. Latest PTL Load Date: 22/11/2024

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Show Filters Clear Filters Filters Applied

To select more than 1 category at a time, hold down 'Ctrl' on your keyboard whilst clicking the buttons

Sodium Units & Date	eGFR	eGFR Units & Date	Smoking Status	Alcohol Consumption	IMD Quintile	Patient Need Group	Attendances	Admissions		
(mmol/L), 25/07/2024	71.00	(mL/m/1.73m), 25/07/2024	Never Smoked	11/3/2023	5 - Least Deprived Quintile	9 Dominant Major Chronic Cond	0	0		
(mmol/l), 21/03/2024	78.00	(mL/m/1.73m), 21/03/2024	Past Smoker	10/17/2024	4 - Second Least Deprived Quintile	9 Dominant Major Chronic Cond	0	1		
(mmol/L), 20/05/2024	69.00	(mL/m/1.73m), 20/05/2024	Hazardous (14+) alcohol consumption	20/05/2024	1 - Most Deprived Quintile	5 MultiMorbid Med Complexity	0	1		
(mmol/l), 11/09/2024			Past Smoker	9/11/2024	Non drinker alcohol consumption	11/09/2024	5 - Least Deprived Quintile	9 Dominant Major Chronic Cond	0	0
					5 - Least Deprived Quintile	9 Dominant Major Chronic Cond	1	1		

97 (mmHg), 139 (mmol/L), 86.00 (mL/m/1.73m), Non drinker alcohol 5 - Least Deprived Quintile 0 0

Patient Details to inform Early Optimisation

← **Patient Optimisation Details** Latest PTL Load Date: 22/11/2024 **NHS**

Right Click For Patient Details

AGE		QOF COUNT		MAJOR DRUGS		SIGNIFICANT REFERRAL		STROKE/TIA		SMOKING							
Age	QOF LTC Count	Major Drugs		Significant W/L TF(s)		Significant Outpatient Appointment(s)		QOF: Stroke/TIA		Smoking Status							
84	6	10		Clinical Haematology Service		Cardiology (11/11/2024)				Past Smoker 9/6/2024							
HYPERTENSION				COPD				MENTAL HEALTH		OPIOIDS		AF					
Latest BP		CVS Drugs		Age		QOF: Hypertension		QOF: COPD		Respiratory Drugs		QOF: Mental health		Latest Opioid Prescription		QOF: Atrial fibrillation	
120/54 (mmHg), 03/10/2024		4		84		Y								Y			
OBESITY				HEART FAILURE				CKD		CHD							
Latest BMI				Heart Failure Variation		HF Drugs		QOF: CKD		QOF: CHD							
31.7 (kg/m2), 06/09/2024				Heart failure		1		Y		Y							
ANAEMIA				RHEUMATOID ARTHRITIS				DEMENTIA		FRAILITY		PAD					
Latest Hb		Latest Iron Prescription		QOF: Rheumatoid arthritis		Immunosuppressive Drugs		QOF: Dementia		eFI Category		QOF: PAD					
145 (g/L), 06/09/2024										Severe							
HYPONATRAEMIA		MEDICATIONS		DIABETES				EPILEPSY		ADMISSIONS							
Sodium Result		Major Drugs (Last 12M)		QOF: Diabetes		HbA1c Result		Diabetic Drugs		QOF: Epilepsy		Admissions (Last 12M)		Latest Admission			
136 (mmol/L), 06/09/2024		10 (4 Categories)		Y		79 (mmol/mol), 06/09/2024		2				4		04/10/2024			
ALCOHOL				PROCEDURE				LD		A&E ATTENDANCES							
Weekly Consumption				Procedure				QOF: Learning disability		Attendances (Last 12M)				Latest A&E Attendance			
										4				03/10/2024			

Graphnet Transforming Care

Early Patient Optimisation Pilot In Progress

- Using deprivation as a selection criteria, next pilot involved identifying patients with an optimisation alert as soon as they are listed for surgery
- Patients who might benefit from optimisation are flagged regardless of their level of peri-operative risk
- Secondary Care thresholds based on RCoA guidelines / other standards as applicable
- Anticipate early identification of complex patients on the surgical waiting list will lead to better outcomes for patients and the healthcare system.



What has been flagged

- Incomplete shared care records means opportunities to start patient optimisation are missed
- 50% of patients on the waiting list require optimisation
- Variable optimisation leads to poorer surgical outcomes and cancellations
- Surgeons and key stakeholders do not have access to the Shared Care record
- Patients need to be identified as early as possible in surgical pathways

Planned Benefits and Impact

- Improved coordination and communication throughout the perioperative pathway.
- Better controlled DM, BP, BMI, Smoking status, alcohol intake
- Reduction healthcare utilisation whilst on surgical waiting lists
- Risk reduction for patients with multiple comorbidities
- Shorter hospital stay, reduced post operative complications
- Better healthcare resource planning and efficiency savings

- Prehabilitation pilot inclusion criteria:
 - Deprivation
 - Optimisation of Blood Pressure / poorly controlled Diabetes
 - BMI, Smoking, Alcohol
 - Patient Need Groups
 - Acute activity – admissions / attendances
- Team of Health coaches / nutritionists inviting patients for consultations in community locations: shopping centre, church, well-being hub, library or virtual
- Wonderful patient stories and qualitative feedback
- Outcome measures : Healthcare utilisation whilst on waiting list, improved optimisation targets, fewer delays to surgery, improved surgical outcomes, shorter length of stay, reduced readmissions

Next steps

- Poorly controlled Diabetes ; technological intervention
- Identified surgical groups for targeted interventions – early endometrial hyperplasia, pain referrals, arthroplasty work up, complex incisional hernias
- Patients with incomplete SCR metrics to upload measures via NHS App
- Of those with complete metrics, 50% flagging an optimisation need on surgical lists



- Developed an automated, rules-based risk stratification algorithm to identify high and low risk surgical patients
- Streamlining pathways has enabled us to better use our limited resources
- Proactively identifying patients much earlier in their patient journey
- Patients who need light touch, get light touch
- More complex patients benefit from focused additional resources, personalised programmes
- We know from our patients that their experience is better
- We aim to improve surgical outcomes
- We are also addressing Public Health needs through these teachable moments
- We are now able to deliver commitments set out in the NHS long term plan, enabling a universal personalised care approach
- Innovative public / private sector partnership
- The projects have been a catalyst for true cross-collaborative working across systems – primary care, public health, secondary care surgical services and digital

Any Questions?