Oxford Academic Health Science Network

Innovation and Impact

Berkshire Healthcare and Royal Berkshire

Oxford AHSN Partner Showcase 2 May 2017

Accelerating health and economic gains for our region by working together

Time	Presenter (s)	Topic
16.00	Julian Emms, Chief Executive, Berkshire Healthcare Steve McManus, Chief Executive, Royal Berkshire	Welcome and introductions
16.15	Professor Gary Ford, Chief Executive, Oxford AHSN	Oxford AHSN Innovation and Impact
16.30	Dr Jeremy Lade, Berkshire Healthcare WestCall Out of Hours Service	Improving sepsis recognition and management in primary care
16.55	Camilla Sowerby and Brian McMahon, Early Intervention in Psychosis Service, and Sofia Raza, Berkshire Healthcare	Early Intervention in Psychosis
17.15	Dr Manish Thakker, Emergency Department, Consultant, Royal Berkshire	Innovation and Impact research in the Emergency department at RBH
17.35	Dr Atul Kapila, Director of R & D and Consultant Anaesthetist, Royal Berkshire Emily More, Executive Director, Thames Valley CTU	Collaborations in R & D between Royal Berkshire and the University of Reading
18.00	Nigel Keen, Chairman, Oxford AHSN	Closing remarks followed by Networking and light refreshments

Welcome and introductions

Julian Emms, Chief Executive, Berkshire Healthcare

Steve McManus, Chief Executive, Royal Berkshire

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Innovation and Impact

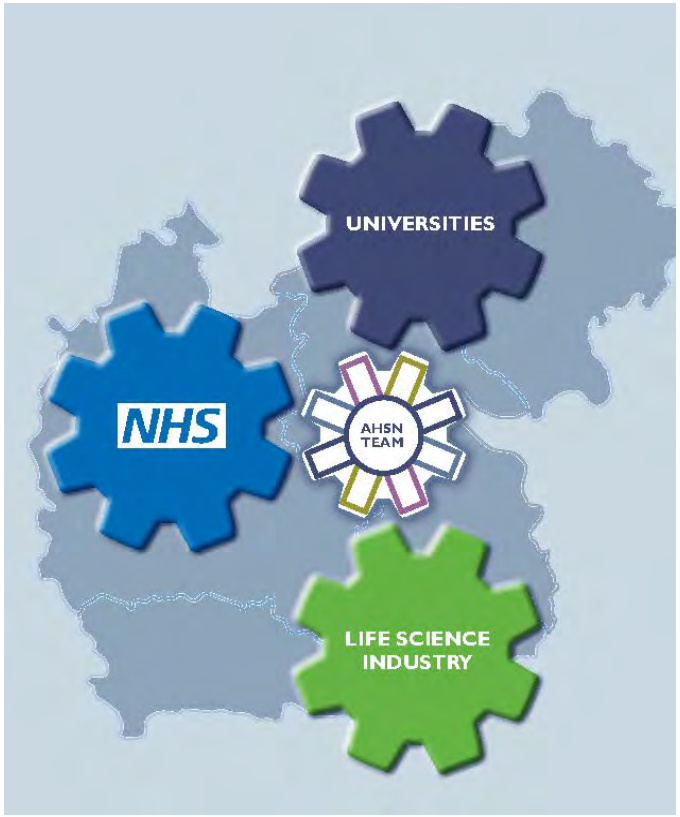
Professor Gary Ford CBE

Chief Executive, Oxford AHSN

Gary.ford@oxfordahsn.org

Oxford AHSN

Oxford Academic Health Science Network



- 7 programmes and themes
- 100+ collaborative projects
- 50+ innovations
- 30+ industry partnerships
- 3 million people
- 11 NHS Trusts
- 65,000 NHS staff
- 9 universities
- 4 STPs & 2 Accountable care systems
- 750 life science companies
- 1 information governance framework – all 12 trusts signed up
- 2,020 newsletter subscribers and 2,950 Twitter followers

ComRes independent stakeholder survey

- 563 respondents to survey (26% of those contacted) – more than 50% from NHS frontline
- 80% said network building culture of collaboration and partnership
- 64% said network adds value to their work
- *"They're listening, identifying challenges and trying to help us solve problems"* NHS provider
- *"Without the likes of the AHSN small companies would really, really struggle to get any traction with the NHS"*

You can read the full report here: http://bit.ly/OxfordAHSNsurvey

Highlight PPIEE

leadingtogether@oxfordahsn.org

Leading Together Programme

"What you've been doing here is the way to go: professionals and citizens working together to make health and wellbeing better. Just being in the room the patient or lay person changes the conversation."

Jeremy Taylor, Chief Executive, National Voices

Highlight Workforce Health and wellbeing

"Physical activity reaches the very foundation of illness and helps prevent 23 diseases including depression, diabetes and dementia. An active workforce results in 27% fewer days lost to sickness with productivity increasing by up to 15%"
Dr William Bird, Intelligent Health

"No effort is too small. Start wherever you can and keep going"

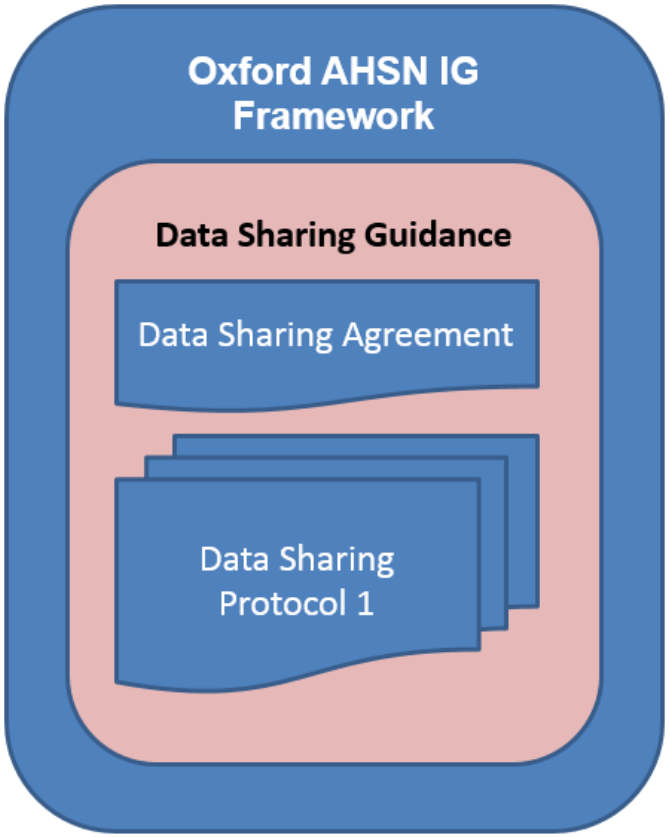
Highlight Clinical networks

“The Thames Valley Neonatal Network is delighted to see that there has been a dramatic reduction in preterm babies being born outside a tertiary centre. This is a major achievement in a short space of time and the whole network is to be congratulated on all the hard work and co-operation that has gone into making this project a success.”
Dr Eleri Adams, Vice Chair, National Neonatal Clinical Reference Group; Clinical Lead, Thames Valley Neonatal Network

Highlight Clinical networks

"'….with great support from the AHSN three members of our team attended the YPWD course that was run by Berkshire in September and they are really motivated and really excited to start bringing an equivalent type of service to Milton Keynes. We've got a lot to aspire to because Berkshire has got an absolutely fantastic service running – it's a brilliant role model for us and our staff are really keen to take that forward.' Dr Stephanie Oldroyd, Consultant Clinical Psychologist, Milton Keynes Memory Service, CNWL FT

Highlight
Data sharing across the region



"The Oxford AHSN team has created an exemplar for information-sharing between partner organisations"

Dr Chris Bunch, Oxford University Hospitals Caldicott Guardian

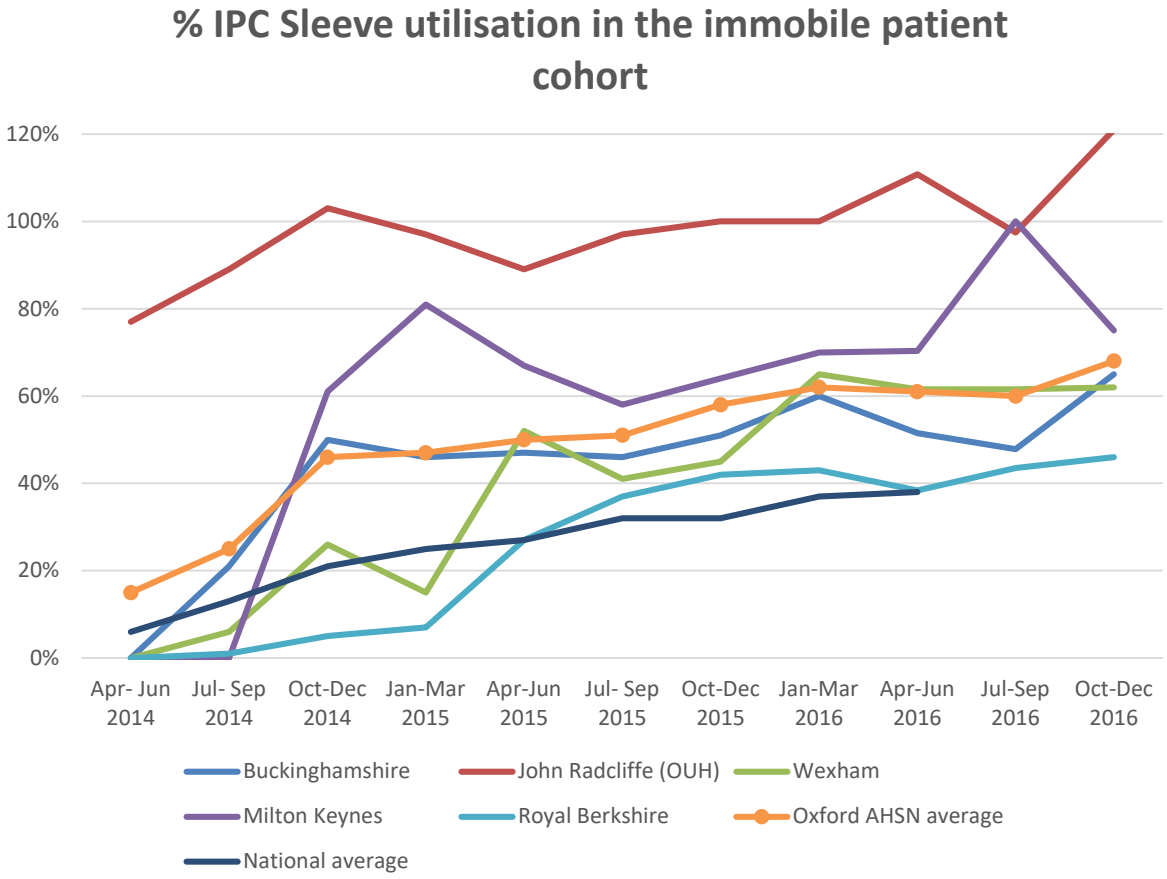
Innovation

Wide range of clinical areas and technologies examples

Clinical Area	Medicines	Medical Devices	Digital Health	Diagnostics
Stroke	• NOACs	• Intermittent Pneumatics Compression Sleeves		• Point of care
Diabetes			• Gestational Diabetes Monitoring	
Sepsis				• Curetis Unyvero™ system
Safety		• Pneux • Wiresafe • Non-injectable connectors	• Intelligent Ultrasound	
Respiratory				• Circassia NIOX® FeNo Point of Care (PoC)
Patient mobility		• Gyroset		
Ambulatory care			• ISanSys patient monitoring	
Prevention				• Somascan

Adoption example
Intermittent Pneumatic Compression Sleeves

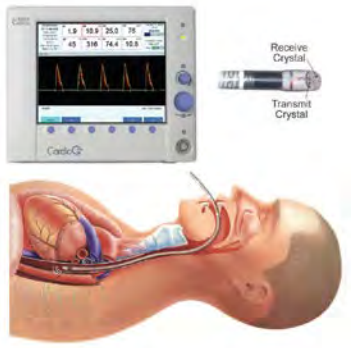
- AHSN approach has significantly increased IPC sleeve utilisation rates compared to the rest of the country.
- Over 16/17 performance across the region remained steady, increasing to an average of 68% for Oct-Dec 2016
- OHE independent study found that driving adoption beyond national average prevented an additional 22 DVTs, 2 PEs and 12 deaths over first 18 months of project



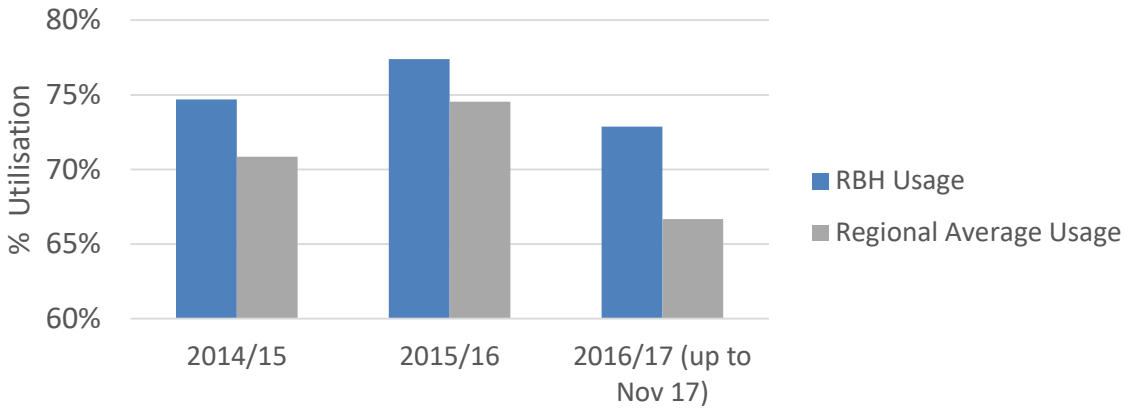
- Assuming utilisation maintained by end of AHSN licence, 2500 patients across the region will have received IPC sleeves. This represents the potential for 125 fewer DVTs, 75 fewer deaths and 13 fewer PEs over the lifetime of the project.

Adoption example
Intra-Operative Fluid Management (IOFM)

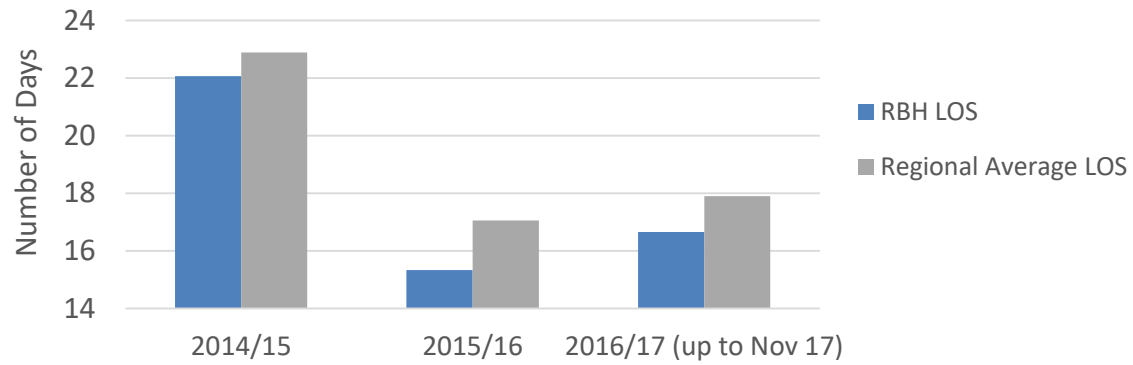
- Use of IOFM Technology enables anaesthetists to monitor patient's hydration status during major and high-risk surgery
- Utilisation of IOFM at RBH in emergency laparotomies has been higher than the regional average over last 3 years of project
- RBH achieves one of the lowest LOS for emergency laparotomy procedures in the region which could be linked to IOFM usage



Utilisation of IOFM as a percentage of total emergency laparotomy cases



Average Length of Stay for emergency laparotomies



Source: NELA audit data Year 1-3

Examples of innovation – latest projects to improve patient safety

- Read more in our Patient Safety annual report – copies available here today

Non-injectable arterial connector

This improves safety for all patients requiring an arterial line in operating theatres and intensive care by preventing drug administration via the wrong route, bacterial contamination of the arterial line and blood spillages.

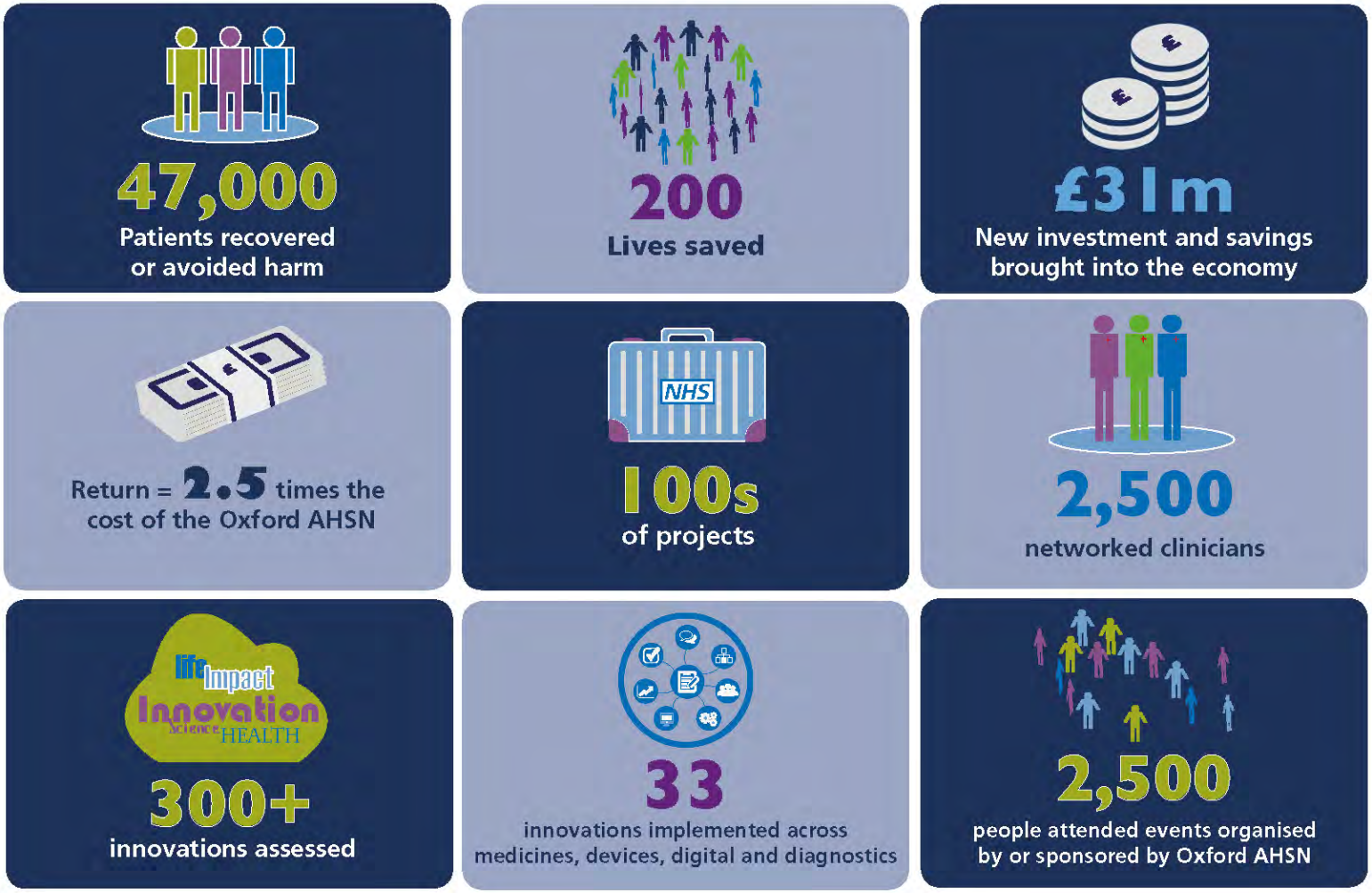
WireSafe

This is an engineered solution to prevent retention of the central line guidewires that are used when inserting large catheters into central veins.

PneuX System

A cuffed ventilation tube and an electronic cuff monitoring and inflating device that prevents leakage of bacteria-laden oral and stomach contents to the lung.

Impact


47,000
Patients recovered or avoided harm
200
Lives saved
£3 1m
New investment and savings brought into the economy
Return = 2.5 times the cost of the Oxford AHSN
NHS
100s
of projects
2,500
networked clinicians
Life Impact Innovation Science HEALTH
300+
innovations assessed
33
innovations implemented across medicines, devices, digital and diagnostics
2,500
people attended events organised by or sponsored by Oxford AHSN

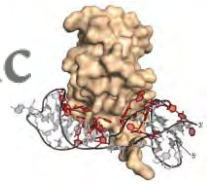
Diagnostic Projects

In Progress

- Extension from using point of care diagnostics in the EMUs to Out of Hours GP vehicles for use in the community sponsored by a health foundation grant
- Study will assess the benefits of PoC in an Out of Hours setting using Abbott iStat

- Evaluation of Horiba Microsemi^{CRP*} in Oxford University Hospitals NHS FT, Stoke Mandeville Hospital and Wexham Park
- Testing of a CRP and whole blood assay in emergency departments to better diagnose those children with severe infection and to reduce unnecessary admissions

In Planning



- Assessment of proteomic profiles using SOMAScan® of NHS Health Check participants in collaboration with GP practices in Bucks
- Develop a model of risk across the study population that assesses the impact of pharmacological and lifestyle interventions

- Offers a single protocol for sample preparation with potential to assess a 100 analytes within a few hours in a PoC setting
- Assessment of Unyvero system in infectious diseases in Oxford University Hospitals NHS FT and Royal Berkshire Hospital about to start

Examples of projects you are leading/involved with:

Programme	Example
Best Care	EiP – on line pilot being developed in Berkshire Health using SilverCloud App Joined up assessment forms being used and developed in Berkshire
Clinical Innovation Adoption	The FallSafe Care bundles programme in place in Berkshire Gestational Diabetes m-Health Technology being used in RBH Maternity
Industry Partnerships and R & D	RBH working with Oxford Genomics Medical Centre Evaluation of the Intelligent Ultrasound audit process for ultrasound images at Royal Berkshire. Both Trusts active members of the AHSN R & D Group
Patient Safety	Good progress made at Berkshire Healthcare in AWOL – Bluebell ward achieved its aim. AKI in Royal Berkshire and use of new patient safety devices for intensive care patients

Future

- Innovations need to get into the NHS more quickly and cheaply
- The AAR identified AHSNs as playing a key role in identifying and adopting new transformative products
- Oxford AHSN focus on Innovation Adoption, Industry Partnerships and Patient Safety
- Innovation – medicines, medical devices, digital technology and diagnostics
- Different challenges to adoption even for innovation with strong case for adoption – eg need for pathway changes, funding changes, affordability, clinical leadership capacity

Patient Safety - Improving Sepsis management in Out Of Hours Primary Care

Dr Jeremy Lade

Medical Director

WestCall OOH Service for Berkshire West

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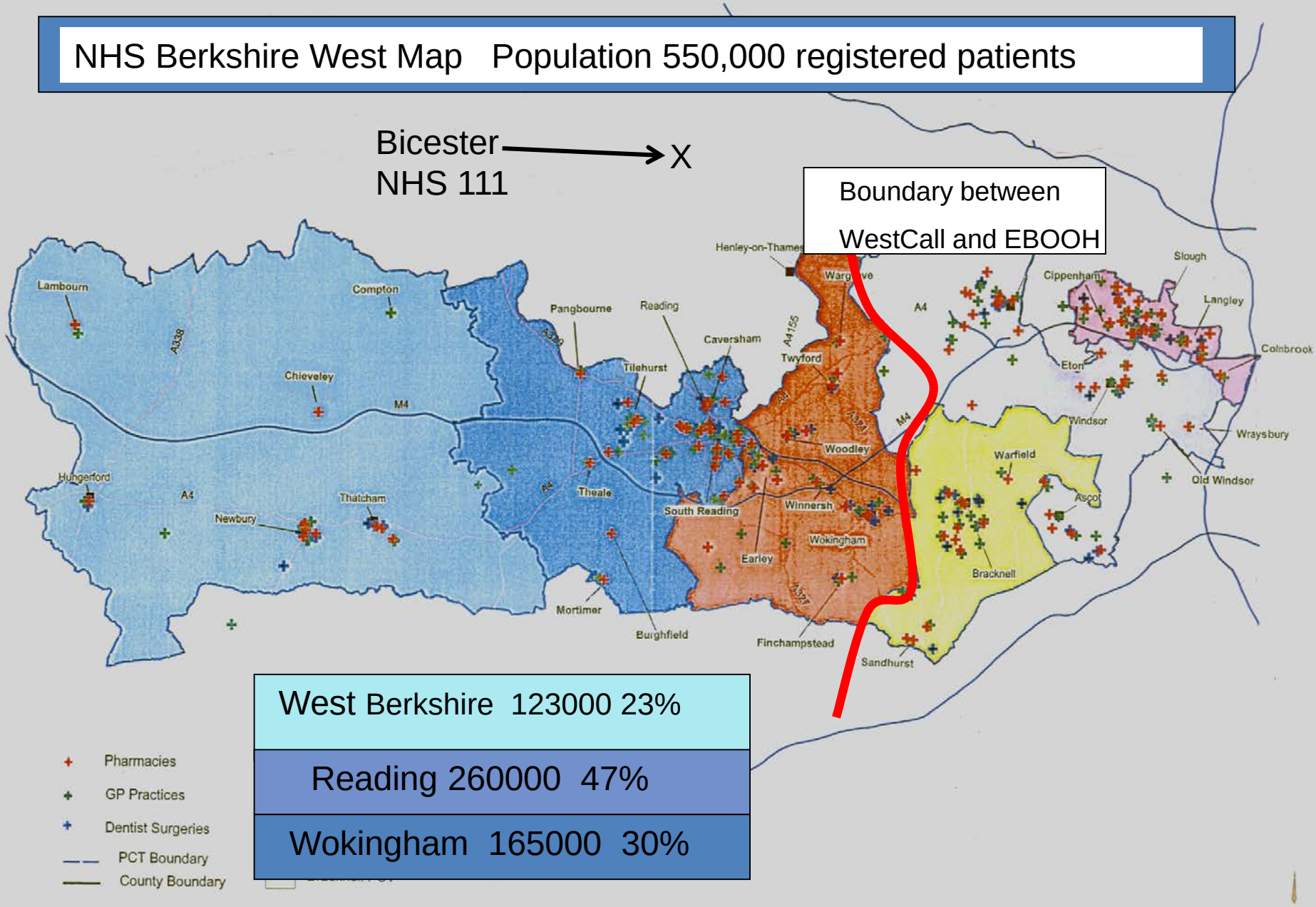
NHS Berkshire West Map Population 550,000 registered patients




WestCall and the Health Hub


DOCTOR
WestCall NHS
RK58 WEF
DISCOVERY 3
DOCTOR
WestCall NHS
RX61 JMU
DISCOVERY 4
DOCTOR
DOCTOR
DOCTOR


Catheterisation Bag
Asthma Bag
Full courses of Medication
Quickbox
Drug Bag
Nebuliser 2

WestCall

Stanley aged 10, his story

1. Oct 7th Monday. Attended ED with 2/7 painful R knee. Dx Tender tibial condyle, Rx Ibuprofen.
2. Tuesday. Attended GP. Mum asked for Ibuprofen. Also asked GP to look at circumcision done 4/52 ago in Zimbabwe. GP said not necessary to do so.
3. Friday. Mum called GP. Stanley had cough for 2/52 and D&V for 6 days. GP prescribed Amoxil over the phone.
4. Saturday. 0500hrs Paramedic called WestCall. Called to see Stanley because he could not walk , needed help to toilet. Nil to find except T38.1, **RR32**, **HR 150**, **SpO2 95%.** GP said not happy about tachycardia and asked that he come to PCC at 0800hrs.
5. Saturday am. Stanley DNA'd at PCC. Mum called SCAS to say she has missed the appointment , they asked her to attend but she did not.
6. Saturday am. Adastra system nationwide failed because of N3. WestCall could not do comfort calls until 1500. Then no replies. ED checked, had not attended. Case closed at 1155hrs.
7. Sunday. Evening call to NHS 111 Mum says he is unwell, laboured breathing. First disposition is GP in 12 hrs. Then pale lips mentioned, algorithm tests uncomfortable, 999 sent. Also call duplicated to WestCall, paramedics arrived before Mum could leave for PCC.

WestCall

Stanley aged 10, his story

8. 1700hrs: Paramedics find:
History of recent circumcision in Zimbabwe, boils in groin, 1/52 D&V, on Amoxil, no food for a week, BM 2.4 and falling, SpO2 83%.

9. In ED Dx Septic shock, cellulitis of R leg, CXR shows patchy consolidation, Lactate 11.

10. Collapse and resuscitation not possible.

Cause of death:
Staph Panton-Valentine infection in groin spread to R upper tibia, hence early osteomyelitis. Infected emboli spread to lungs causing necrotising pneumonia and septic shock with multi-organ failure.

WestCall

- Stanley's illness could have been picked up at several stages with increasing ease of diagnosis as time went on, a pattern typical of sepsis which certainly can be difficult to spot in its early stages. He had two examinations by GPs during the week, then a phone call to GP on the Friday and then the Paramedic call on the Saturday morning when the necessary observations to make a diagnosis of sepsis were actually recorded. (Red Flags were present). It all seems easy in retrospect.
- At that time very few GPs were aware of strict sepsis parameters.
- It was most unfortunate that the N3 network failed on the Saturday, WestCall tried to follow up but could not make contact. By Sunday it was too late to save him.
- This was treated as a SIRI by WestCall, SCAS and RBFT. Much was learned, protocols for adults and children were rewritten.
- I attended a Sepsis Masterclass run by Dr Ron Daniels and following this developed a WestCall practical Sepsis kit to enable doctors to identify cases of Sepsis more accurately and treat them immediately with antibiotics if appropriate before they get to hospital.
- As far as we know this use of a simple Lactate monitor to assist with the detection of sepsis in General Practice is a first in this country.

Sepsis: The size of the problem

- No really reliable figures because final diagnosis difficult due to coding.
- Last year 150,000 cases of sepsis in UK
- 44,000 deaths (more than one per year per GP)
- Someone dies from sepsis every 3.5 seconds
- Sepsis Mortality 36%
- We expect 1400 cases of sepsis per year in Berkshire West,
- 70% of sepsis arises in the Community
- Incidence is increasing because of age demographics and AB resistance

Berkshire West: Expect 1,400 sepsis cases per annum
Expect 500 sepsis deaths per annum

In severe sepsis, each hour of delay in giving antibiotics can increase mortality by 11%

Early diagnosis and treatment of Sepsis is the key to successful treatment

The WestCall sepsis kit is designed to aid early diagnosis and to make treatment available. The kit contains:

1. The sepsis examination protocols that should always be used.

2. NEWS scoresheets to pass on the detailed observation information accurately.

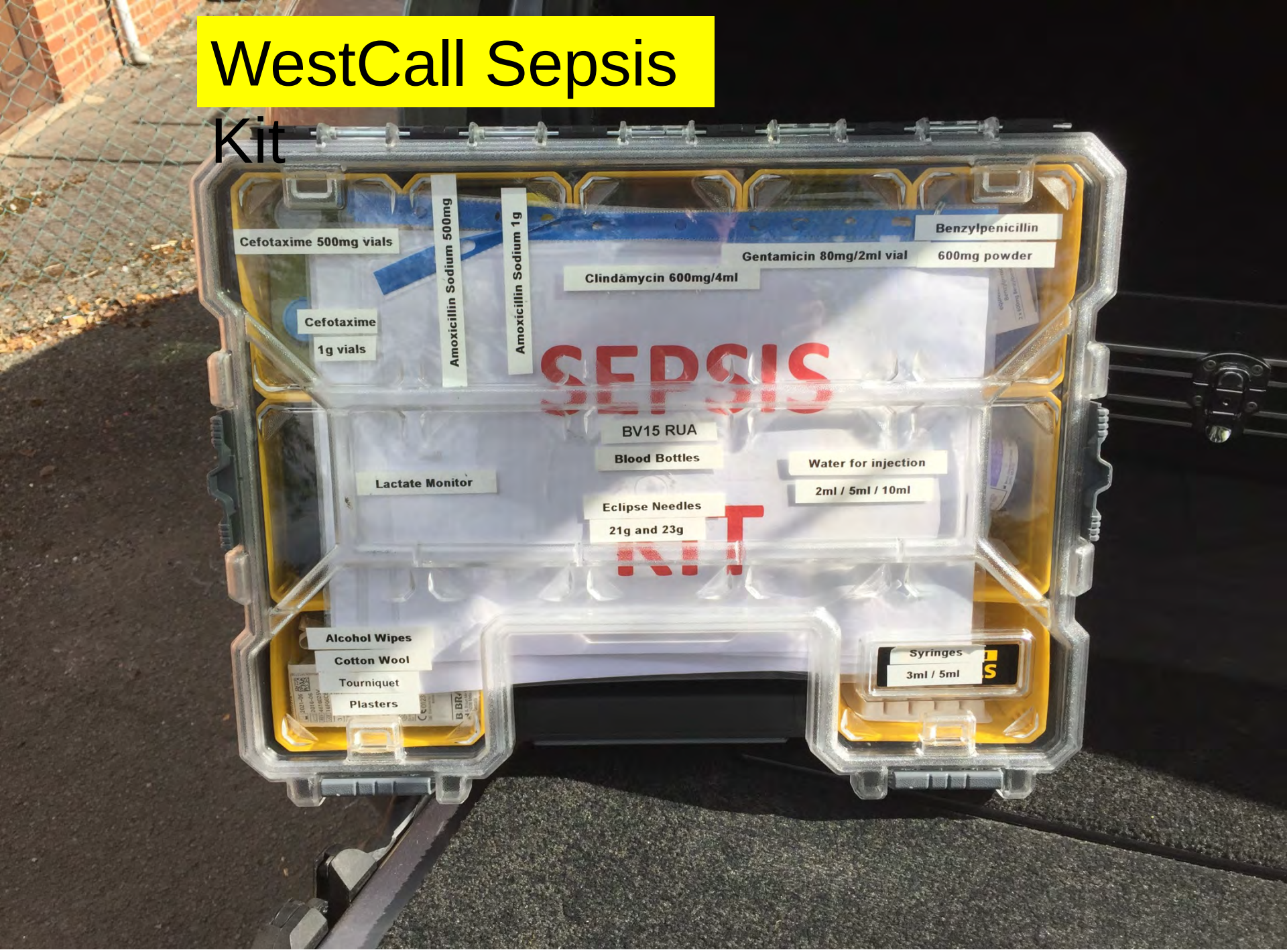
3. The Lactate monitor and test strips. A reading of 2 and above is indicative of increased sepsis risk.

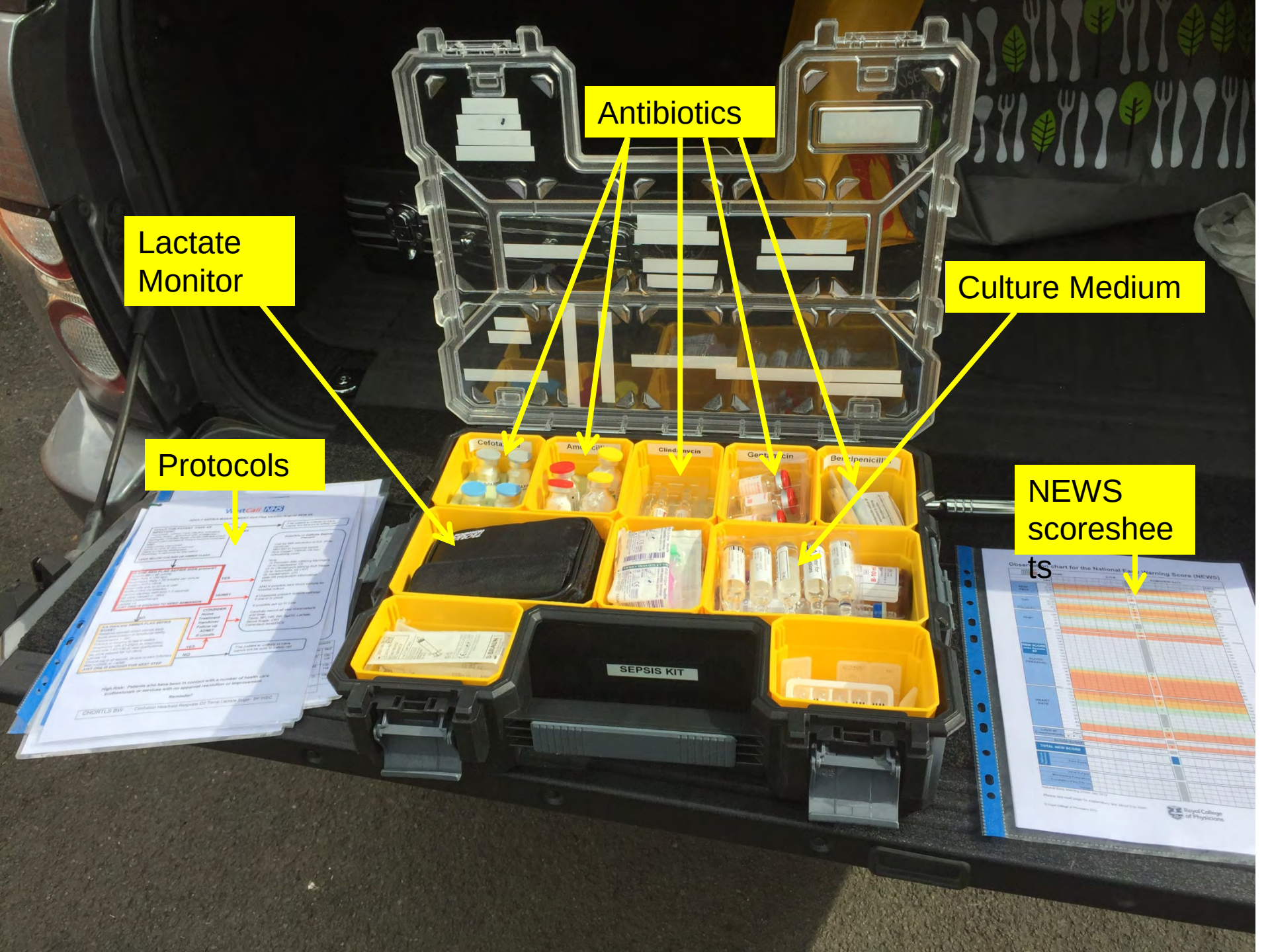
4. Antibiotics for IV or IM use if appropriate with a guide as to which AB to use for which kind of infection.

5. Culture transport medium Gram + and –ve.

6. Needles and syringes, distilled water etc.

WestCall Sepsis Kit

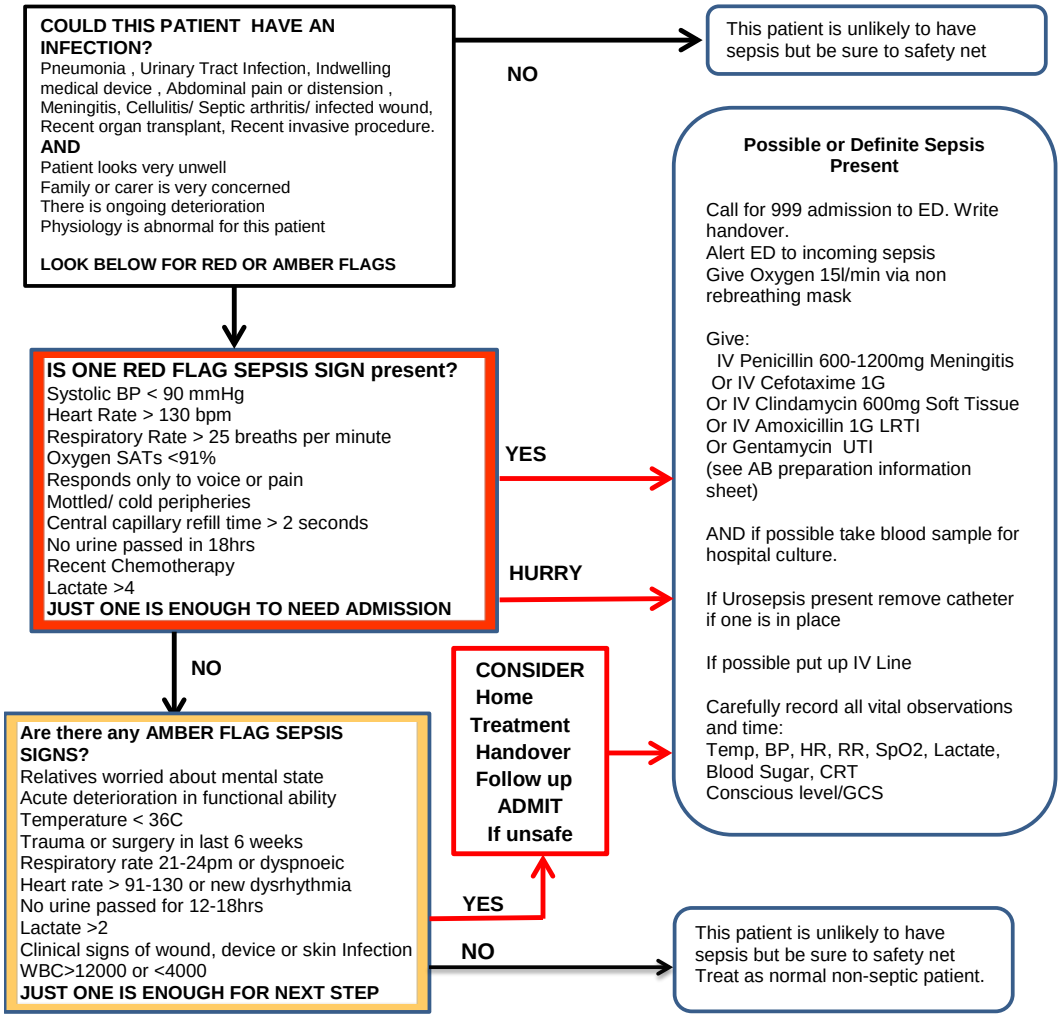



Antibiotics
Lactate Monitor
Culture Medium
Protocols
NEWS scoresheets
SEPSIS KIT

Nova Lactate Monitor

WestCall NHS

ADULT SEPSIS MANAGEMENT Red Flag Version August 2016 V5



High Risk: Patients who have been in contact with a number of health care professionals or services with no apparent resolution or improvement.

Reminder!

CHORTLS BW	Confusion Heartrate Resprate O2 Temp Lactate Sugar BP WBC

WestCall NHS

PAEDIATRIC age 5-11 years SEPSIS MANAGEMENT August 2016 V4

(SIRS=Systemic Inflammatory Response Syndrome)

COULD THIS PATIENT HAVE A SEVERE INFECTION?

Pneumonia, Urinary Tract Infection,Intra-abdominal infection, Meningitis, Cellulitis/ Septic arthritis/ infected wound acquired bacteraemia (ie Group B Strep)

Some children are at higher risk of sepsis. These include but are not restricted to:
Infants < 3 months
Immunosuppressed/ Immunocompromised/ chemotherapy/ long term steroids
Recent surgery, complex neurodisability, long term conditions

AND

Patient looks very unwell
Family or carer is very concerned
There is ongoing deterioration
Physiology is abnormal for this patient

NO → This patient is unlikely to have sepsis but be sure to safety net

YES

IS ONE RED FLAG SEPSIS SIGN present?

Severe tachycardia (see chart)
Severe Tachypnoea (see chart)
Bradycardia (<60/min)
Oxygen SATs <90%
Objective change in behaviour or mental state
Does not wake or stay awake when roused.
Mottled, ashen or blue skin, lips or tongue
Central capillary refill time > 2 seconds
No urine passed in 18hrs
Lactate >4
Temperature<36

JUST ONE IS ENOUGH TO NEED ADMISSION

NO

YES / **HURRY** →

Possible or Definite Sepsis Present

Call for 999 admission to ED. Write handover. Alert ED to incoming sepsis

Give Oxygen 15l/min via non rebreathing mask

Give IV or IM BenzylPenicillin
Or IV or IM Cefotaxime
If meningitis is suspected

Do not give other ABs for paediatric cases

Carefully record all vital observations and time:

Temp, BP, HR, RR, SpO2, Lactate, Blood Sugar, CRT
Conscious level/GCS

DO NOT DELAY

Are there any AMBER FLAG SEPSIS SIGNS?
Parent or clinician remains very concerned
Behaviour strange/will not play
Oxygen SATs < 92% on air
Moderate tachypnoea (see chart)
Moderate tachycardia (see chart)
Reduced urine output
Central capillary refill time > 3 seconds
Purpuric rash
Lactate 2-4

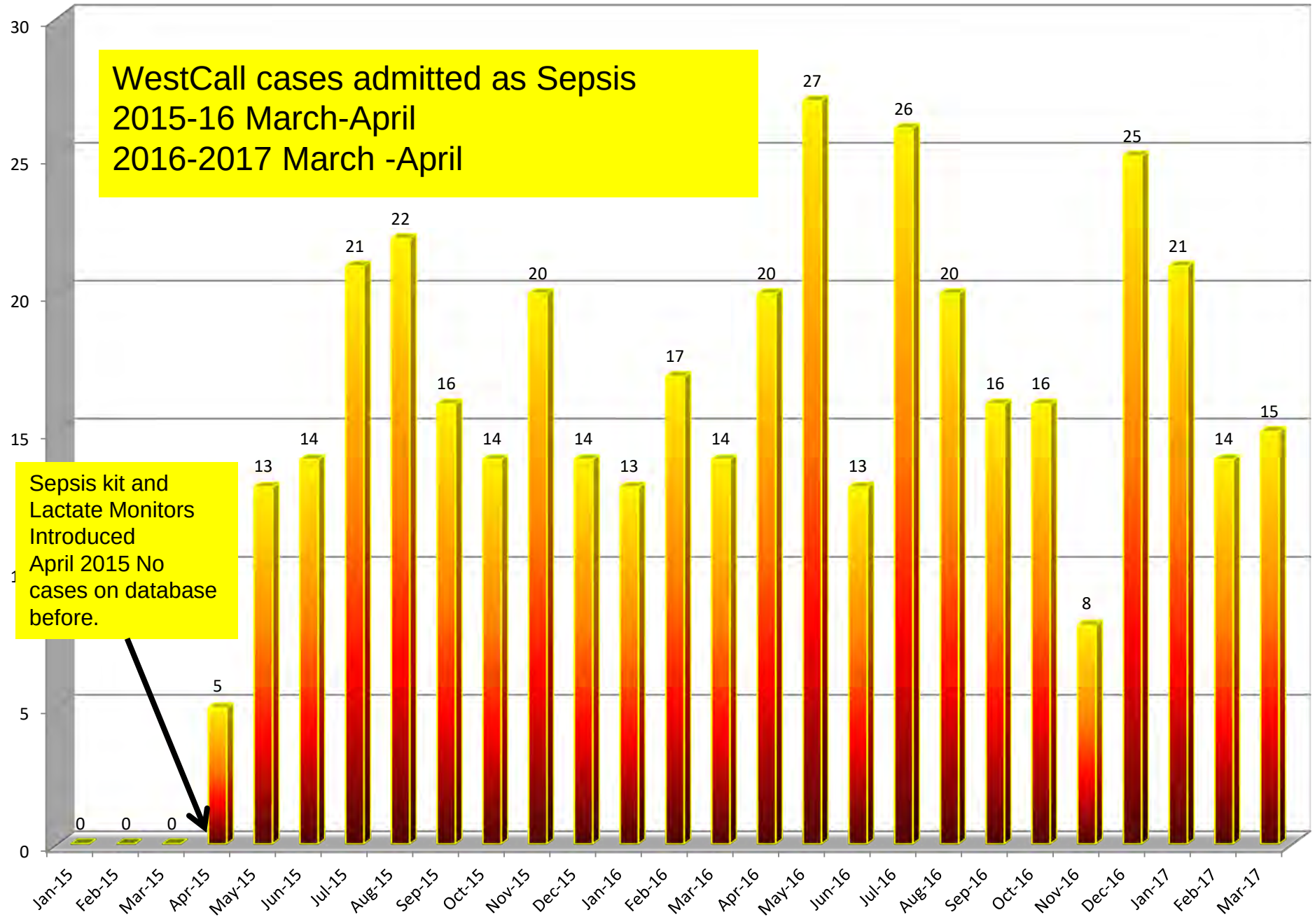
YES → **Sepsis likely CONSIDER Home Treatment Handover Follow up ADMIT If unsafe**

NO → This patient is unlikely to have sepsis but be sure to safety net

Detailed Paediatric parameters

Age	Tachypnoea		Tachycardia	
	Severe	Mod	Severe	Mod
5	>29	27-28	>130	120-129
5-7	>27	24-26	>120	110-119
8-11	<25	22-24	>115	105-114

CHORTLS BW Confusion Heartrate Resprate O2 Temp Lactate Sugar BP WBC


WestCall cases admitted as Sepsis
2015-16 March-April
2016-2017 March -April
Sepsis kit and Lactate Monitors Introduced April 2015 No cases on database before.
30
25
20
15
5
0
0 0 0 5 13 14 21 22 16 14 20 14 17 14 20 27 13 26 20 16 16 8 25 21 14 15
Jan-15 Feb-15 Mar-15 Apr-15 May-15 Jun-15 Jul-15 Aug-15 Sep-15 Oct-15 Nov-15 Dec-15 Jan-16 Feb-16 Mar-16 Apr-16 May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16 Nov-16 Dec-16 Jan-17 Feb-17 Mar-17

WestCall

Analysing results

1. Printout of all Read coded sepsis cases in Adastra.
2. Analyse clinical examination parameters and record on spreadsheet.
3. Check on RBHFT ICE for ED and Discharge summaries.
4. Look at Pathology , Biochemistry, Haematology, XR, scan results on ICE.
5. If Sepsis word is not used for coding then assess inflammatory response results.
6. For patients going to other hospitals check GP records using Graphnet.

WestCall Sepsis audit	Year	Year
Parameter	2015-2016	2016-2017
Cases thought likely to be sepsis by WestCall GP	167	230
Sepsis confirmed	118	134
Sepsis possibly (18 with Lactate, 32 no Lactate ie Triage)	24	54
Not Sepsis	25	42
Accuracy (Confirmed + possibles)	70.60% or 85%	58% or 80%
Clinical parameters measured		
BP	130	165
HR	144	183
SATS	116	158
RR	105	138
CRT	28	43
Temp	135	187
Mental	67	88
Bl Sugar	63	98
Lactate	59	98
CRP		1
Infection site?	17	26
ABs given at Point Of Care	27	22

22 deaths in WestCall sepsis cases for 2016

= 10%

UK death rate usually quoted

=36%

Lactate validity

Overall lactate measured	High lactate sepsis correct	High lactate sepsis negative	Pathology	Low lactate sepsis positive	Pathology
98	72	10		16	
Accuracy,/Inaccuracy rate	73.50%	10.20%		16.30%	
		82511	Flu	78454	Strangulated hernia
		87324	Paeds pelvic pain	94793	Neutropenic on Dexamethasone
		92172	Gout	15418	Bacteraemia
		97735	Pyelonephritis	34074	CAP
		24006	Hip surgery	36129	CAP
		72571	Electrolyte disturbance	49669	MS and UTI
		76055	Crohns	56647	CAP
		80535	Constipation anorexia	64858	CAP
		30551	Gastroenteritis	48297	Urosepsis
		55412	Feb convulsion	47736	CAP
				48813	Urosepsis
				57529	Urosepsis
				58498	Urosepsis
				63951	CAP
				72197	CAP
				75394	Bacteraemia

High Lactate Sepsis negative
60% metabolic

Low lactate Sepsis positive
X7 CAP
X5 Urosepsis
? Slow responders

“False” readings on Lactate monitor and “Possibles”.

1. False high readings are due to other (metabolic) conditions for which admission is often also required.

2. False low readings seem to be mainly due to infective processes in elderly patients, more data required.

3. The “Possible” Sepsis patients have often been dealt with by telephone triage and so not examined and may also have been taken to other hospitals. Out of 50 possibles 18 had lactates measured, 32 did not

How useful is the WestCall sepsis kit?

1. It provides an immediately available set of reference guidelines for the assessment and management of patients who may be seriously unwell. In a disorganised environment this is particularly useful.
2. Our guidelines are clear and easy to use and the doctors are well used to them. They conform to NICE although the format is more user friendly.
3. The Lactate monitor provides 70%-80% predictive indication that the patient has sepsis if the reading is raised over 2%. The monitors increase the confidence of doctors in their diagnosis and active management.
4. If patients are a long way from a hospital then OOH doctors are able to start AB therapy, either IV or IM (less effective).
5. The doctors are also able to provide Oxygen and to alert the sepsis pathway in SCAS and the receiving hospital that a suspected sepsis is being sent.
6. The NEWS score charts provide accurate real time data.
7. The monitors and the kits are inexpensive.

Effects of the Sepsis project on WestCall doctors

- WestCall doctors are ensuring that many more OOH patients are arriving in the ED with a pre alerted diagnosis of sepsis so life-saving preparations for early treatment are already in place. They should already be on O2 and several have been given ABs.

- WestCall doctors have improved their patient assessment and examination techniques since the introduction of the Lactate monitors and the WestCall sepsis protocols.

- The improvement in the information recorded on Patient Encounter Forms that we see in the Clinical Guardian governance procedure is very marked (7% of doctors' work is assessed).

- Greater attention to detail has become routine for many of the OOH doctors.

- The monitors stimulated the clinical interest of the doctors who find them helpful and interesting.

- Sepsis patients often improve very quickly with ABs and speedy hospital management and that is a very satisfying outcome for all.

WestCall

Conclusion

Before 2015 WestCall had no recorded cases of sepsis on the database (in common with most OOH organisations).

In 2015-2016 WestCall doctors admitted 167 cases of ? Sepsis

In 2016-2017 WestCall doctors admitted 230 cases of ? Sepsis.

In 2016-17 approximately 160 were confirmed as sepsis, ie around 70%-80% diagnostic accuracy.

Where the Lactate was measured the monitors gave a 73.5% correct prediction for sepsis. The Lactate monitor is a helpful diagnostic indicator for sepsis. Higher readings appear to indicate higher levels of disease acuity and encourage urgent action.

The mortality rate for WestCall patients with sepsis appears to be less than a third of the national rate. (10% : 36%)

West*Call*

At WestCall we see Point Of Care testing as an increasingly useful way forward.

In addition to Lactate monitors we routinely use:

CRP testing.

Strep A bacterial throat identification.

D-Dimer testing for DVTs.

The use of several more kinds of testing equipment is planned.

West*Call*

Thank you for listening

Any Questions??

Berkshire Healthcare NHS
NHS Foundation Trust

Berkshire Early Intervention in Psychosis Team

Personal Trainer pilot

2 May 2017

Brian McMahon, Care co-ordinator
Camilla Sowerby, Pharmacist

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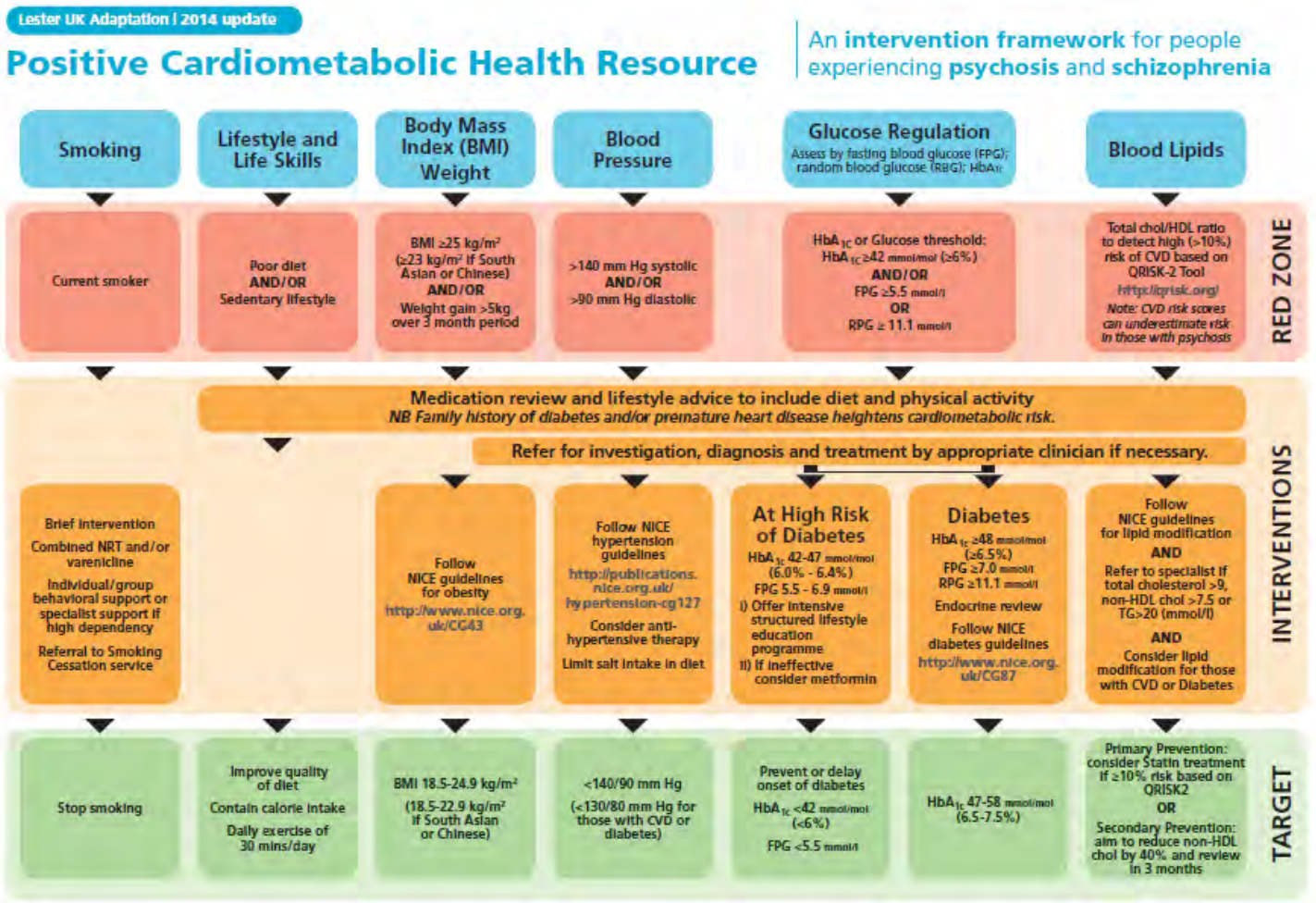
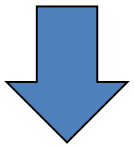
Camilla.Sowerby@Berkshire.nhs.uk

Improving physical health through early identification and intervention



Within our own service we identified a significant unmet need….

50/212 (24%) clients have a BMI >25



within the **RED** intervention zone of the Lester tool

Locally commissioned Public Health services = unsuitable due to:

- not feel comfortable
- low motivation/social withdrawal/more support needed to engage
- flexibility to accommodate the negative/positive symptoms without stigmatising

THE UNMET NEED

Networking was key in identifying this opportunity to fulfil this unmet need

Attendance at AHSN networking event which focussed on the importance of Physical health

Introduced to LiveFit who have an interest in improving the fitness and wellbeing of people with SMI (previous experience)

Made aware of funding opportunity from AHSN EiP Network for innovative interventions to improve the physical health of these clients

3 month Personal Trainer Pilot in Slough and Reading was born

Baselines obtained for: HBA1C/glucose, lipid profiles, BP, BMI, PANSS, QPR
Wellness plan (risk management)
3-way face-to-face induction meeting

Month 1

Twice weekly 1:1 with personal trainer

Check point

Month 2

Once weekly 1:1 with personal trainer and once weekly group PT-led sessions

Month 3

Twice weekly group PT-led sessions (EiP only)

On-going communication

Livefit app and Facebook group

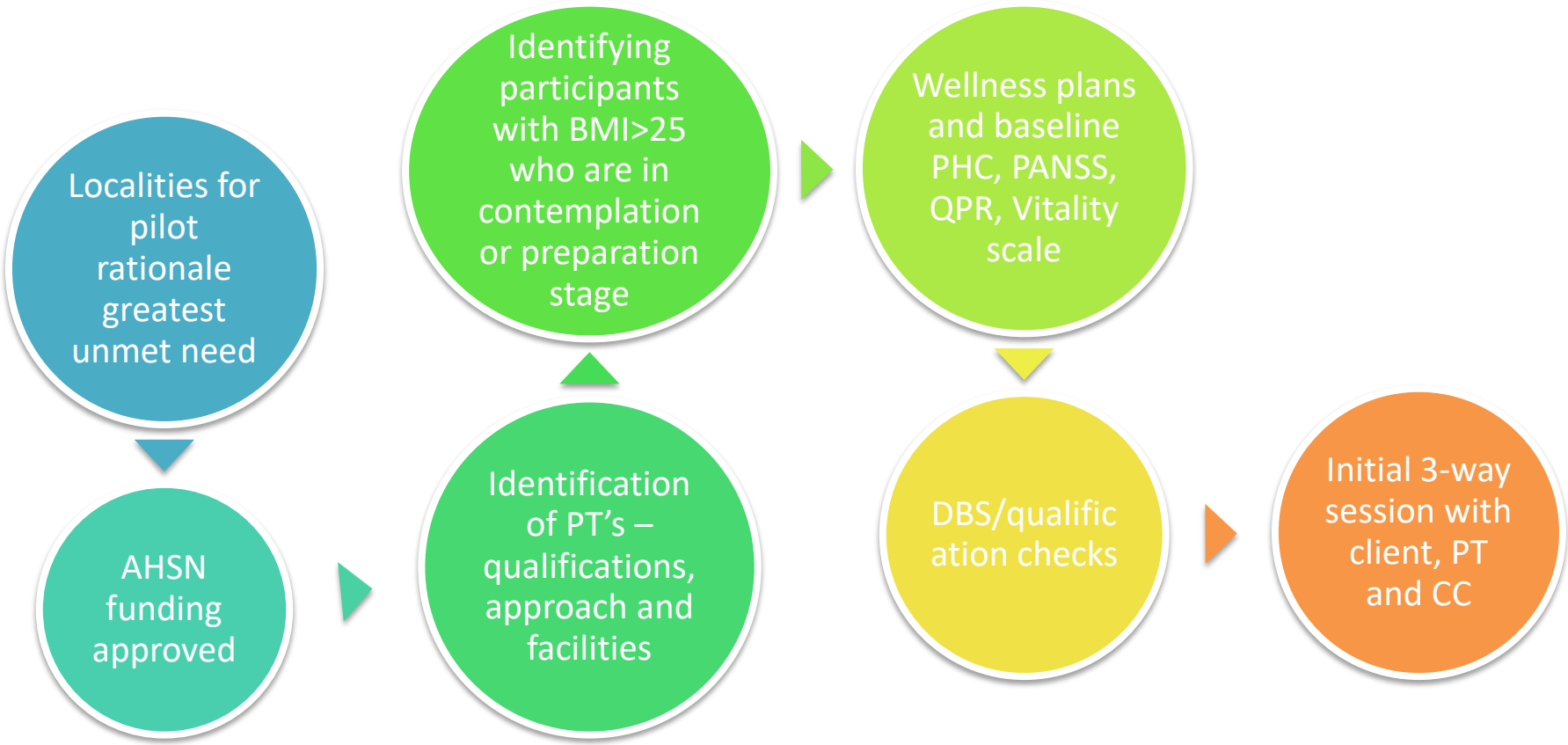
- Daily commitment score
- Stimulate communication between clients e.g. photos of food, motivational messages to complete physical activity

Data collected:

- Commitment score
- Engagement data
- Physical status
- Trainee satisfaction

Re-check: HBA1C/glucose, lipid profiles, BP, BMI, PANSS, QPR

The process to get it off the ground….



Although it is relatively early days we have already identified learning points to action….Part 1….

- Preparation of clients for change and commitment required is **KEY**!
- Identify holiday/breaks in training early on
- Consider location of gym and travel plans for each client
- Communication between PT/CC/pilot leads is important to identify issues to action

Although it is relatively early days we have already identified learning points to action….Part 2….

- Need for weekly update email to track attendance/issues and communicate when next weeks sessions are for CC to support attendance

- CC involvement is substantial if investment in preparing them for this change is not adequately undertaken

- Managing clients missing sessions due to holidays and therefore reaching the group sessions at different times

Thinking forward this can help cultivate the EiP philosophy within our service and help us meet future targets

✓To expand in a more sustainable and inclusive way

✓Target group are those whose physical health is deemed high-risk AND clients new to the service to preserve their physical health

✓Social inclusion and engagement is as equally important as the impact on physical health

✓17/18 CQUIN for EiP (<35% of clients gain more than 7% of their body weight in their 1st year)

Planning for expansion and sustainability….

Group sessions open to all EiP – those new in without weight issues – keep them moving, reduce incidence of weight gain, use of peer volunteers and STAR workers to support attendance

Possible funding structures/mechanisms: charity money, subsidise sessions, social enterprise

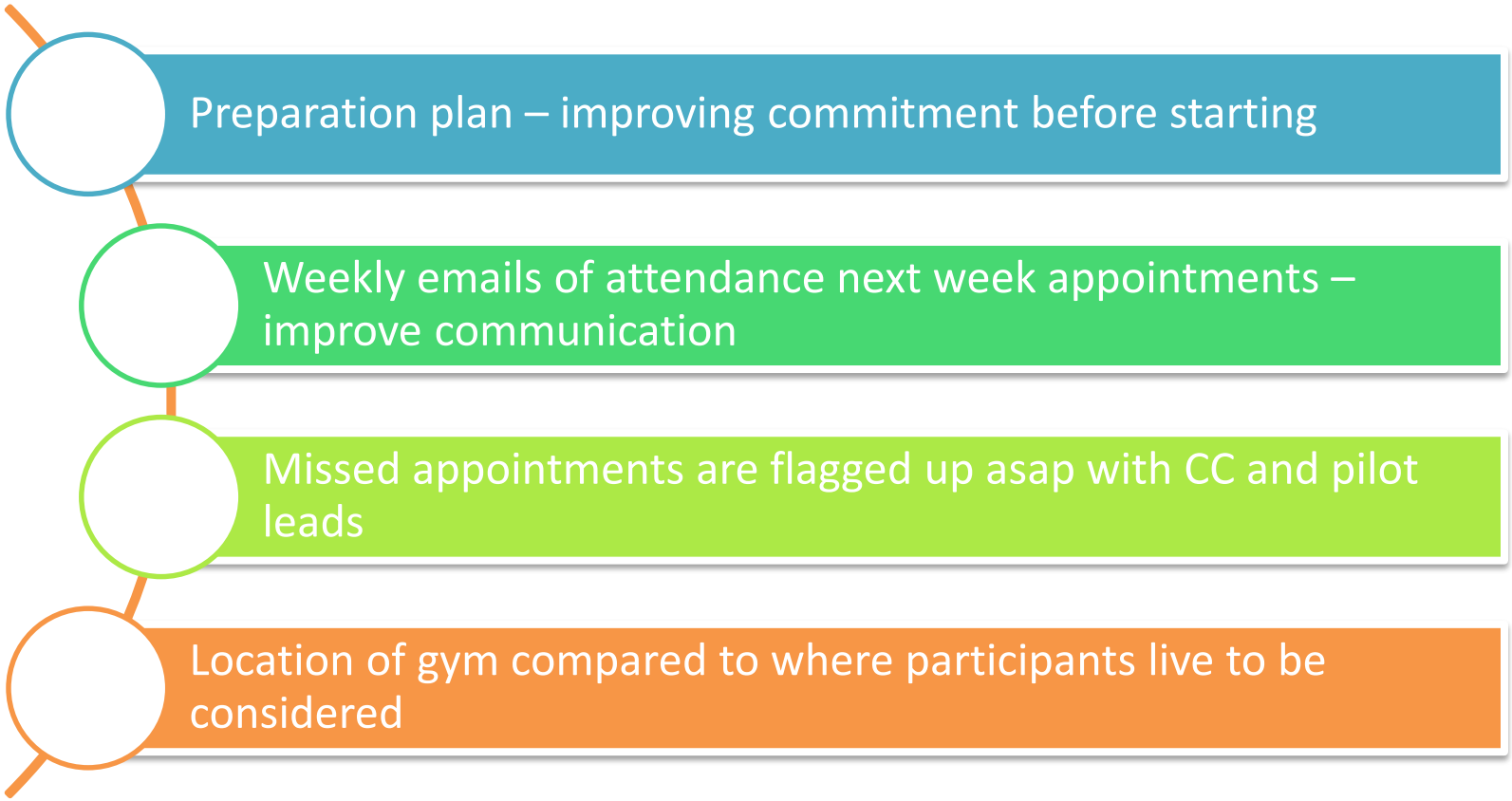
B6 Care co-ordinator using this as his research topic for MSc

1:1 PT patients identified as necessary (BMI >25)

Service user involvement to lead groups (adequately trained or support them undertaking the training)

Start with group sessions in remaining localities as these have a social/peer support benefit as well as being cheaper (indoor/outdoor mix depending on group preference)

Implementing our lessons learnt…..what changes we are going to make….



Implementing our lessons learnt…..what changes we are going to make….

1. Send out case study and questionnaire (current habits, exercise history and some motivational interview style q's)

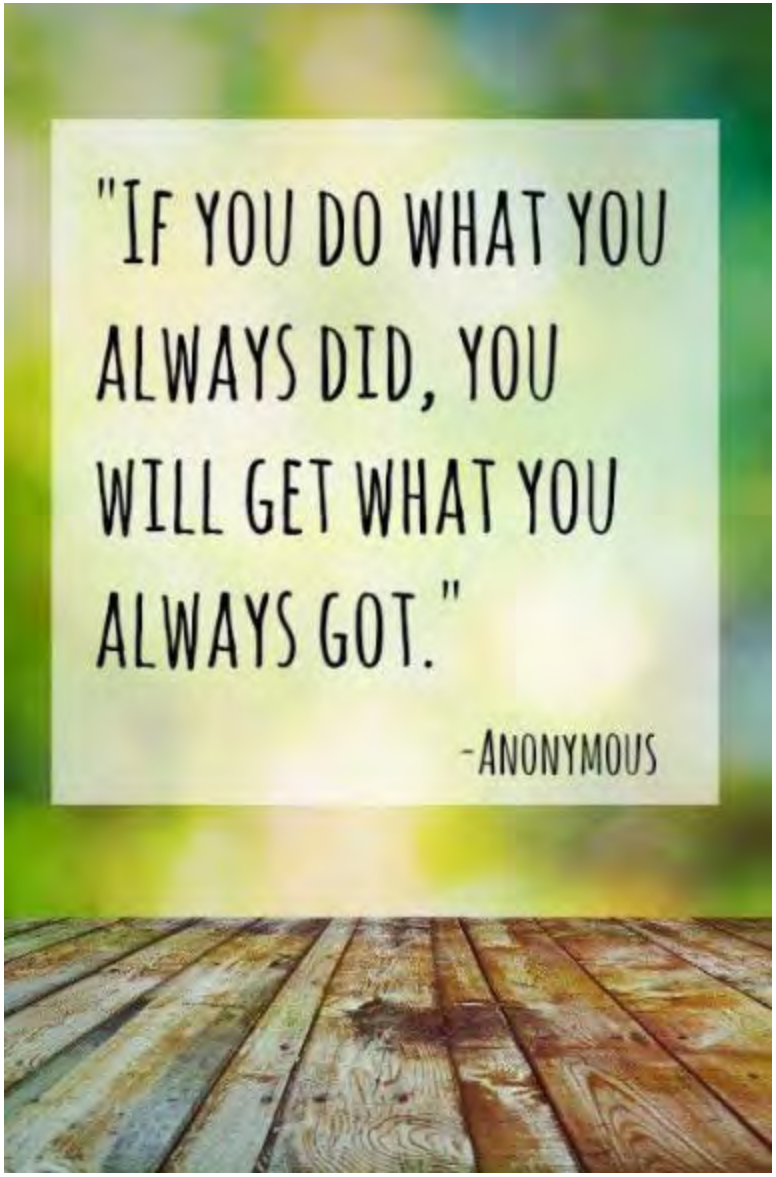
2. Three way Skype with client, CC and PT.

3. Simple Exercise homework pre-commencement (walking, home workouts, stretches - with videos to follow)

4. Start the chat group

5. Further questionnaire just before commencing (how have you done so far, challenges/victories, more motivational interview style q's)

And what does participation mean to our clients?


"IF YOU DO WHAT YOU ALWAYS DID, YOU WILL GET WHAT YOU ALWAYS GOT."
-ANONYMOUS

Research in the Emergency Department

Oxford Academic Health Science Network

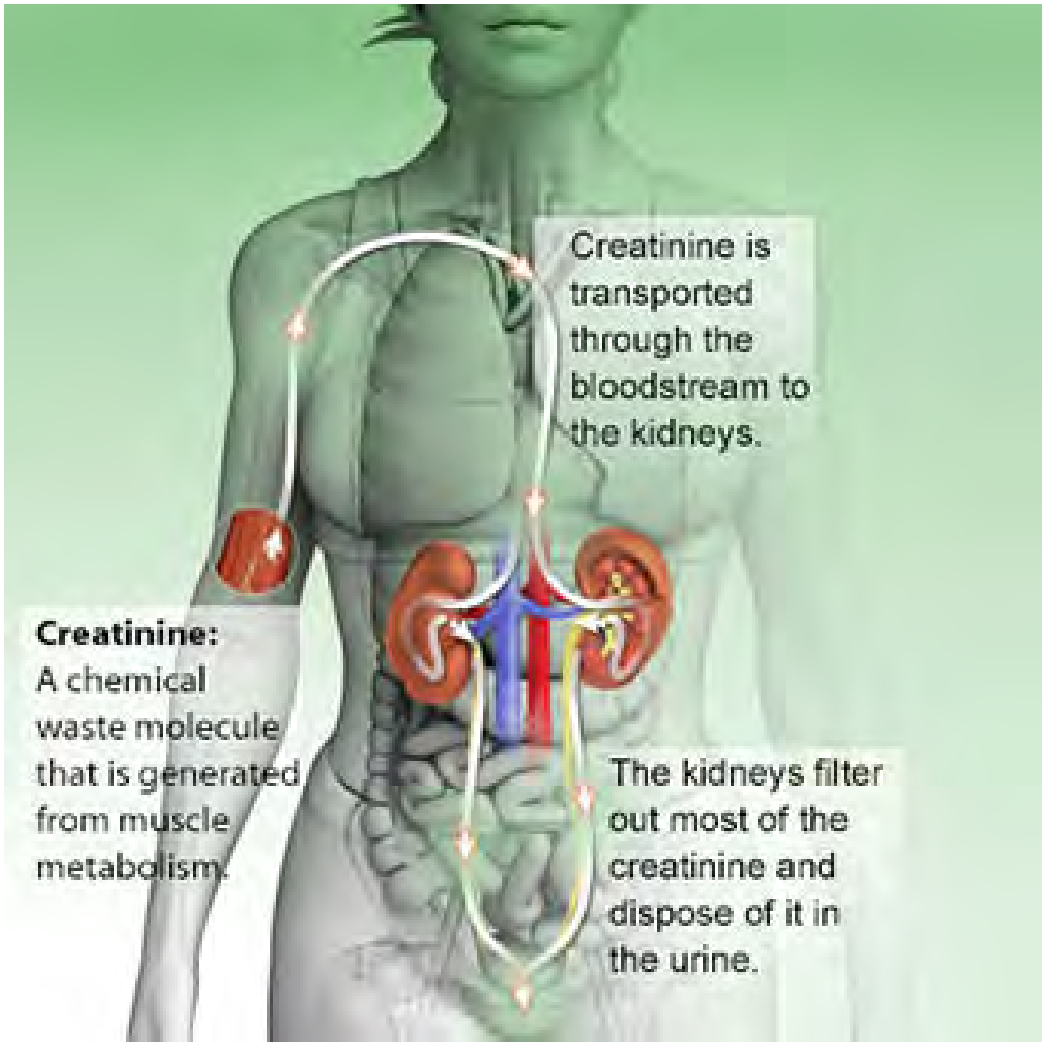
Manish Thakker
Consultant in Emergency Medicine
NIHR fellow
Royal Berkshire NHS Foundation Trust
Manish.thakker@royalberkshire.nhs.uk


GEORGE & DELILA
HOME MADE
ICE CREAM
GEORGE & DELILA
G&D's
On Sale
NOW!
BOTTLED
BEER
gel Sandwiches • Fresh bakery • Fairly Traded Coffees
GEORGE & DELILA
OPEN
Oxford's Own
Open
8am - Midnight
Everyday
104

ARTICLE | Annals of Internal Medicine

Sensitivity and Specificity of a Single Emergency Department Measurement of Urinary Neutrophil Gelatinase–Associated Lipocalin for Diagnosing Acute Kidney Injury

Thomas L. Nickolas, MD, MS; Matthew J. O'Rourke, BS; Jun Yang, MD, PhD; Meghan E. Sise, BS; Pietro A. Canetta, MD; Nicholas Barasch, BS; Charles Buchen; Faris Khan, MD; Kiyoshi Mori, MD, PhD; James Giglio, MD; Prasad Devarajan, MD; and Jonathan Barasch, MD, PhD


Creatinine is transported through the bloodstream to the kidneys.
Creatinine:
A chemical waste molecule that is generated from muscle metabolism.
The kidneys filter out most of the creatinine and dispose of it in the urine.

Review: NGAL for AKI in ED

- 7 studies
- Variable quality and design:
  - Recruitment bias
  - Different reference standard within same study
  - Inconsistent thresholds
  - None based in UK

Author, publication date	Setting	Patient group	Sample size	Index test	Reference test	AUC (95% CI)	Suggested NGAL cut-off value (ng/ml)
Nickolas, 2012	3 EDs - Berlin - 2 x New York	Convenience sample of adults admitted from ED	1635	**uNGAL measured from ED**	Patients categorised: No AKI* Stable CKD** pAKI*** iAKI**** unclassified***** n = 401	**0.81 (0.76 – 0.86)**	104 (75th percentile) 47 (60th percentile)
Du 2011	ED	Convenience sample of paediatric patients	252	**uNGAL measured from ED**	pRIFLE	**0.66 (0.50 – 0.81) for any AKI** **0.80 (0.6 – 1.00) for RIFLE I**	*(not given)*
Makris 2009	ICU - Greece	Multiple trauma patients admitted to ICU and enrolled within 24 hours of injury	31	**uNGAL on admission**	Minimal RIFLE criteria over 5 days	**0.977 (0.823 – 0.980)**	27
Nickolas[9] 2008	1 ED - New York	Convenience sample of adults admitted from ED	635	**uNGAL on admission**	Patients categorised: No AKI+ CKD++ Prerenal azotaemia+++ AKI++++	**0.948 (0.881 – 1.000)**	85 130

Author, publication date	Setting	Patient group	Sample size	Index test	Reference test	AUC (95% CI)	Suggested NGAL cut-off value (ng/ml)
Breidthardt 2012	ED x 3 in Switzerland	Adults with acute heart failure according to European Society of Cardiology guidelines.	207	**pNGAL on admission**	Minimum AKIN criteria within 4 days	**0.67 (0.57 – 0.77)**	94
Macdonald 2012	ED x 2 in Australia	Adults with acute decompensated cardiac failure (PRIDE score > 6)	90	**pNGAL on admission**	Minimum RIFLE criteria within 7 days	**0.71 (0.58 – 0.84)**	89
Shapiro 2012	ED x 10 in USA	Adults with a presumptive diagnosis of sepsis OR lactate > 2.5mmol/l, and 2 of 4 criteria for SIRS	661	**pNGAL on admission**	RIFLE/RRT over 72 hours	**0.82 (0.76 – 0.88)**	150

Plasma and urine neutrophil gelatinase-associated lipocalin in the diagnosis of new onset acute kidney injury in critically ill patients

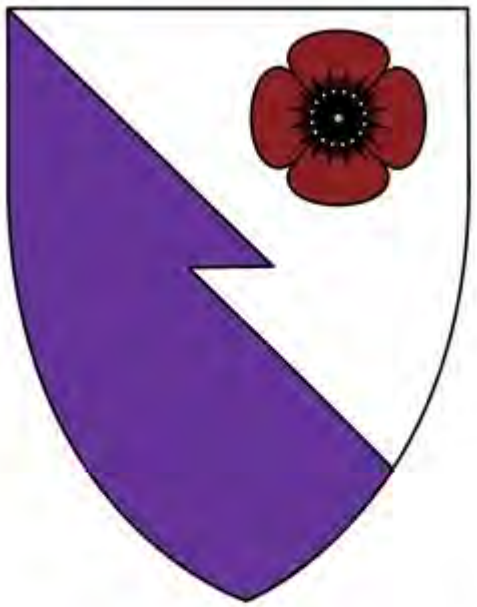
Ramprasad Matsa ✉, Emma Ashley, Vivek Sharma, Andrew P Walden and Liza Keating

Critical Care 2014 **18**:R137 | **DOI:** 10.1186/cc13958 | © Matsa et al.; licensee BioMed Central Ltd. 2014

Received: 12 February 2014 | **Accepted:** 2 June 2014 | **Published:** 1 July 2014

Results

Over a 12-month period, 194 patients were enrolled. In total, 59 (30.4%) patients developed AKI. The admission pNGAL and uNGAL were significantly higher in the patients who developed AKI compared to the non-AKI patients (436 ng/mL (240, 797) versus 168 ng/mL (121.3, 274.3) P <0.001 and 342 ng/mL (61.5, 1,280) versus 34.5 ng/mL (11.5, 107.75) P <0.001 respectively). Hospital mortality was higher in the AKI group (17% versus 4%). Plasma NGAL performed fairly on admission (AUROC 0.77) and thereafter performance improved at 24 and 48 hours (AUROC 0.88 and 0.87) following ICU admission. Urine NGAL had a fair predictive value on admission (AUROC 0.79) and at 24 hours (AUROC 0.78) and was good at 48 hours (AUROC 0.82).



The Royal College of
Emergency Medicine

Three Investigator Led Studies to date

Lipocalin (NGAL), and Cystatin C in the
Emergency Department for
Acute
Kidney injury

Multi-centre
n = 950
Index test: ED NGAL and Cystatin C
Reference: RIFLE (creatinine trend)

New links, shared practices.
Cluster data collection days
Further collaborations
RCEM priorities e.g. S100b

Clinical safety programmes | Building a safer system | Resources | News and events | Governance

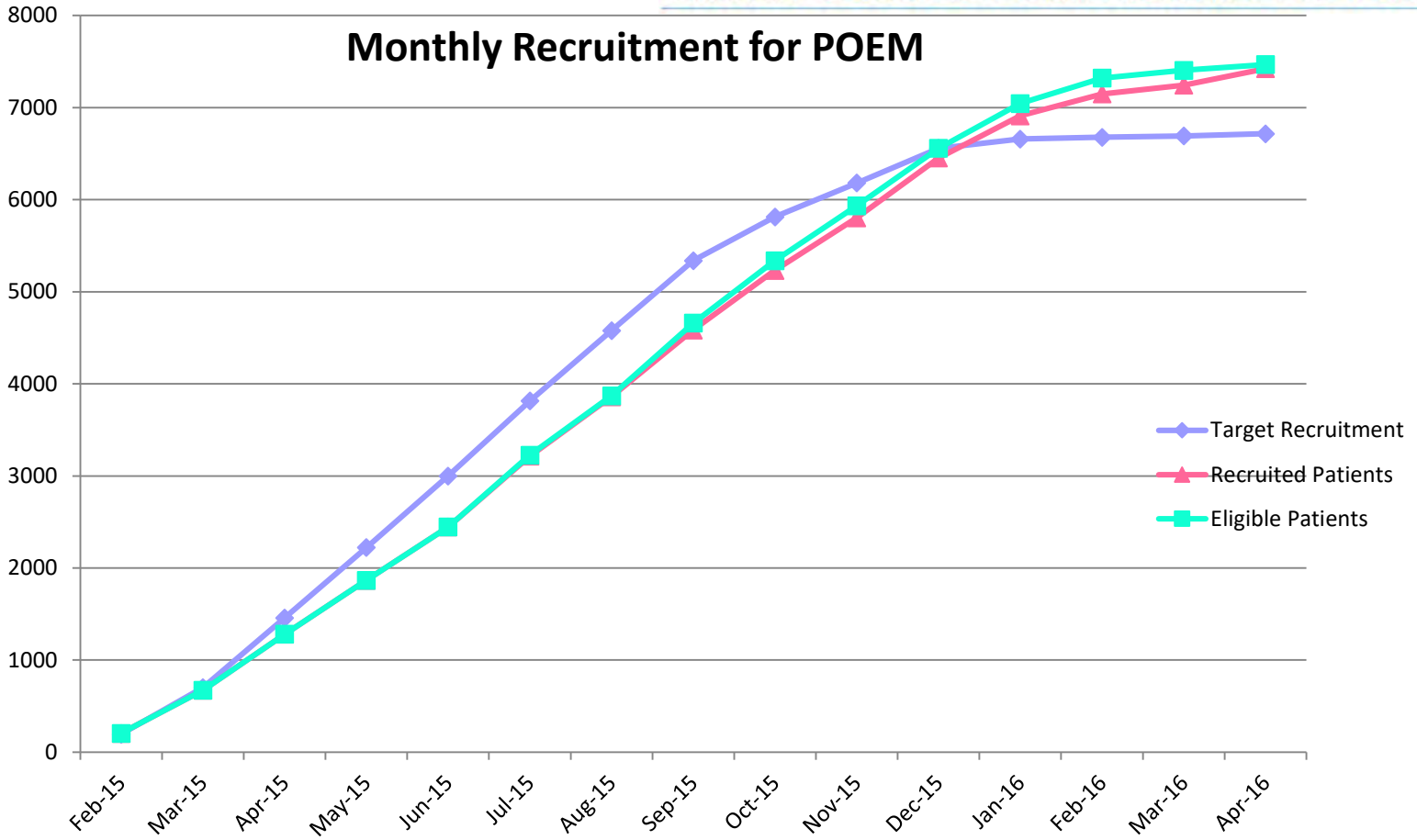
programmes » Reducing incidence of and...

s Home
harm
(AKI)
urces

Reducing incidence of and harm from acute kidney injury (AKI)

Programme Lead: Emma Vaux

Consultant Nephrologist and Programme Director of Quality Improvement, Royal Berkshire NHS Foundation Trust



The British Pain Society

POEM

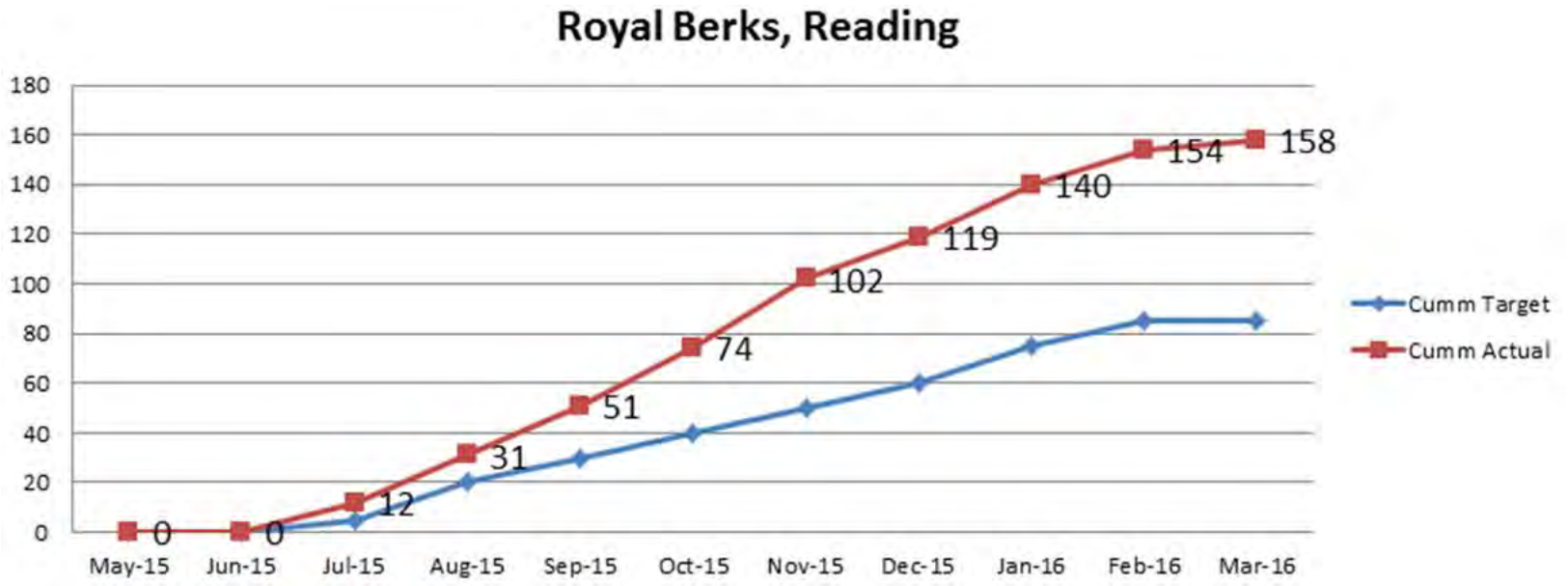
The Royal College of Emergency Medicine

25 YEARS RCoA Royal College of Anaesthetists 1992–2017

Year	Collaborations	Numbers
2011/12	ICU and ED teams combine to form URGENT CARE RESEARCH TEAM	10 studies running
2013/14	ED Studies with Gastroenterology, Acute Medicine, Psychological Medicine and Paediatrics	176 into 14 studies
2014/15	ED Studies with Maternity, Cardiology, Radiology and Emergency Nurse Practitioners	335 patients into 17 studies
2015/16	ED collaboration with Respiratory and Acute Medicine	325 patients into 18 studies
2016/17	Further ED Collaborations with Respiratory, Cardiology and new studies for ICU	

SPRAINED

Synthesising a clinical Prognostic Rule for Ankle INjuries in the Emergency Department



Site	Average Patients per month
1. Reading	**18**
2. Bristol	**10**
3. Leicester/Oxford/Gloucestershire	**9**
4. Poole	**7**
5. Wexham Park / Birmingham / Sheffield	**6**

Oxford Academic Health Science Network

The IPED study

TICH-2

IONA Study

PARAMEDIC2
The Adrenaline Trial

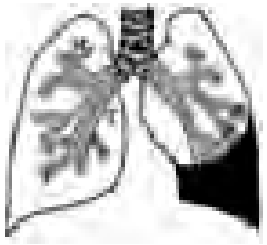
CRASH-3
Clinical Randomisation of an Antifibrinolytic in Significant Head Injury

LEAK

POEM

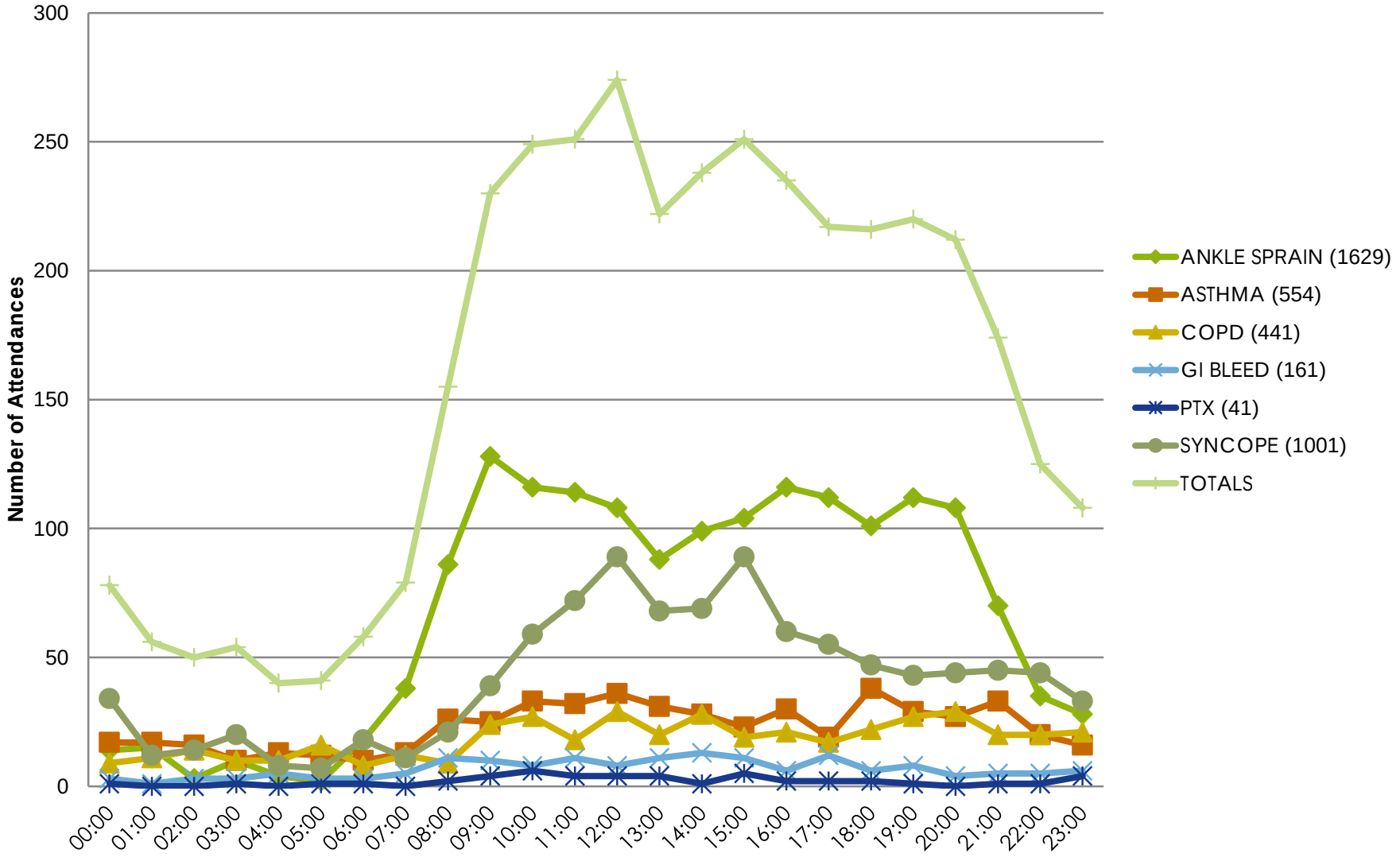
Quality time

RAPID CTCA



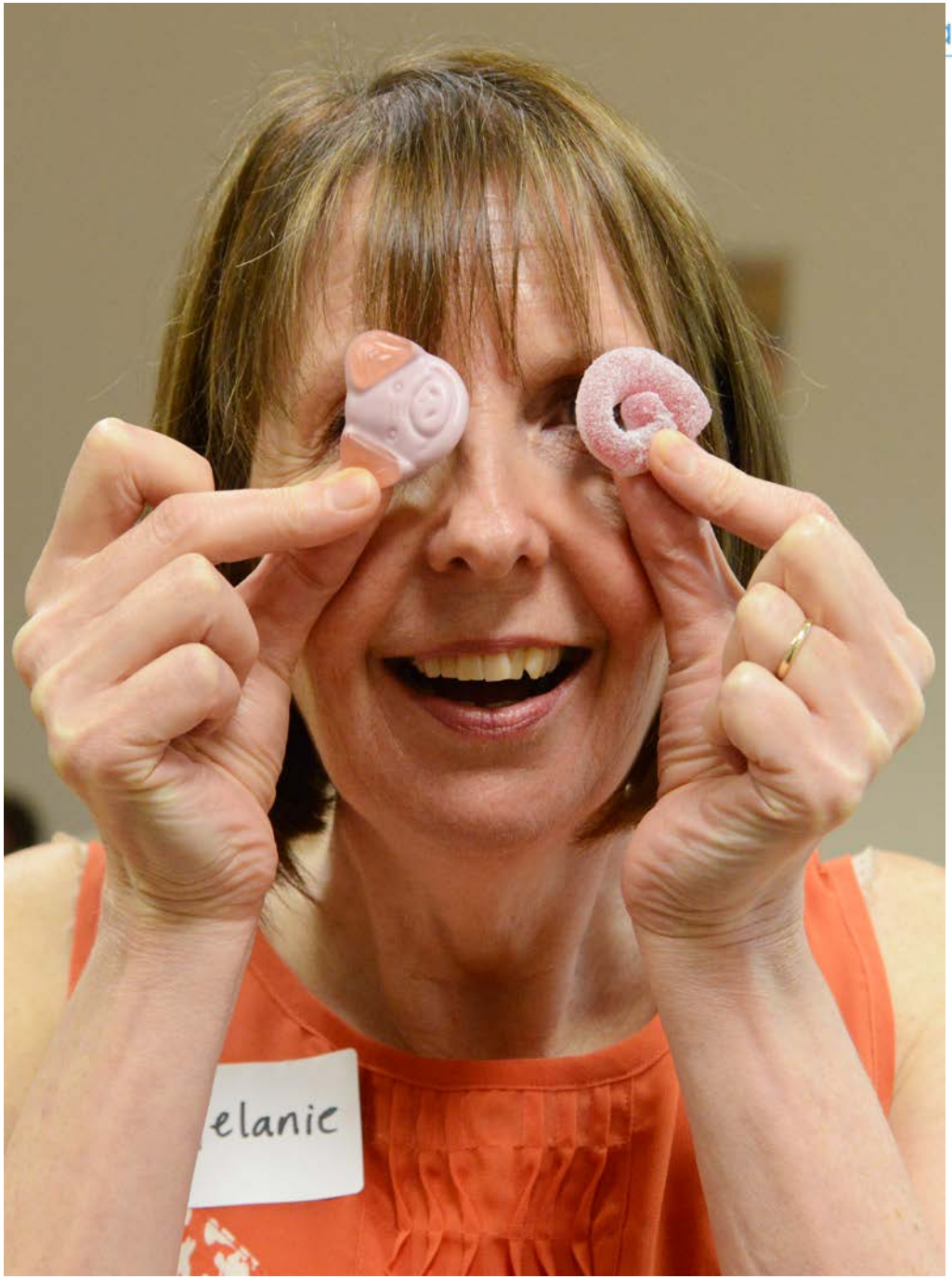
Haltoit
Haemorrhage alleviation with tranexamic acid - Intestinal system

Attendance Times in ED from 20/04/16 - 20/04/17

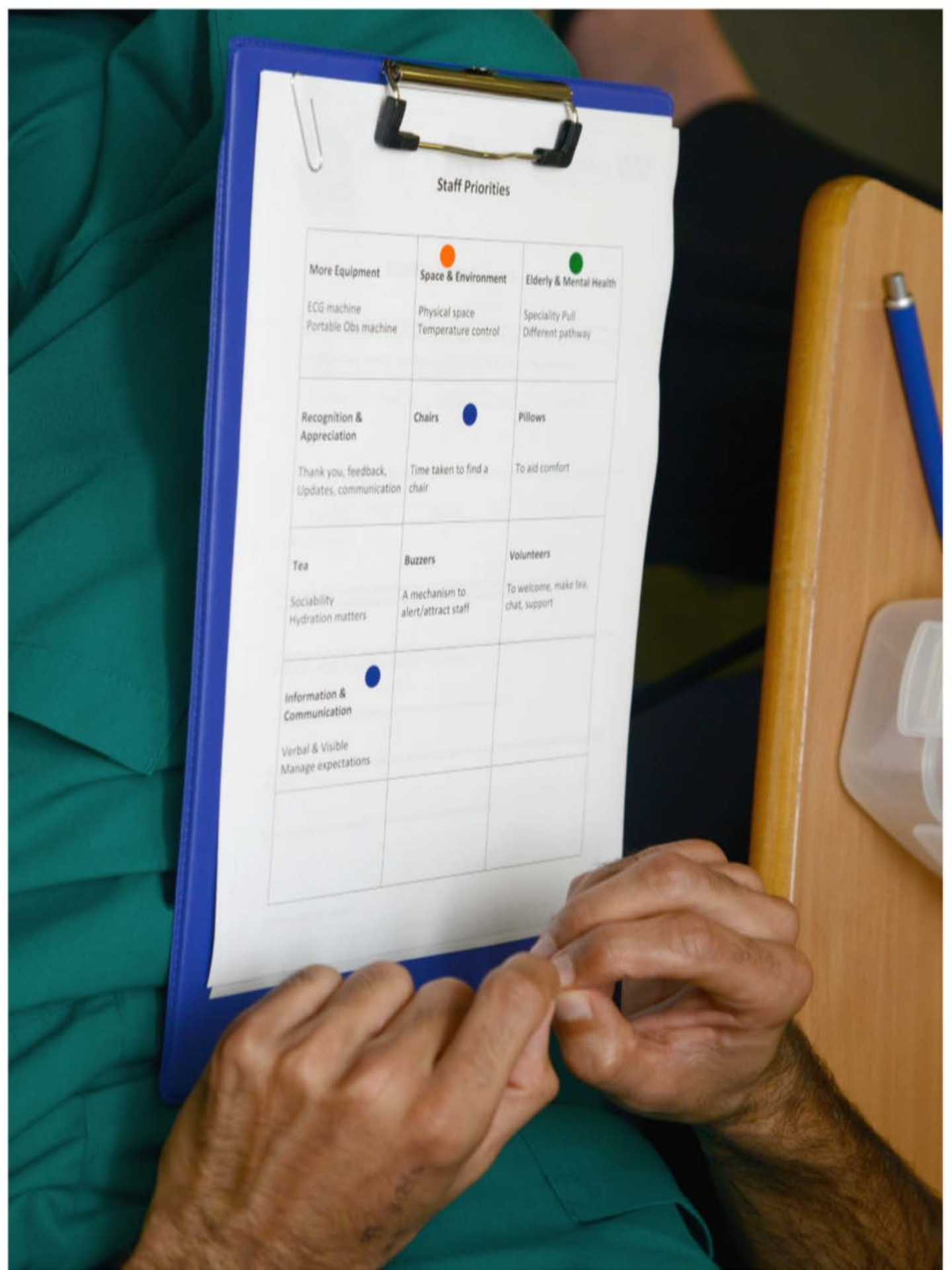


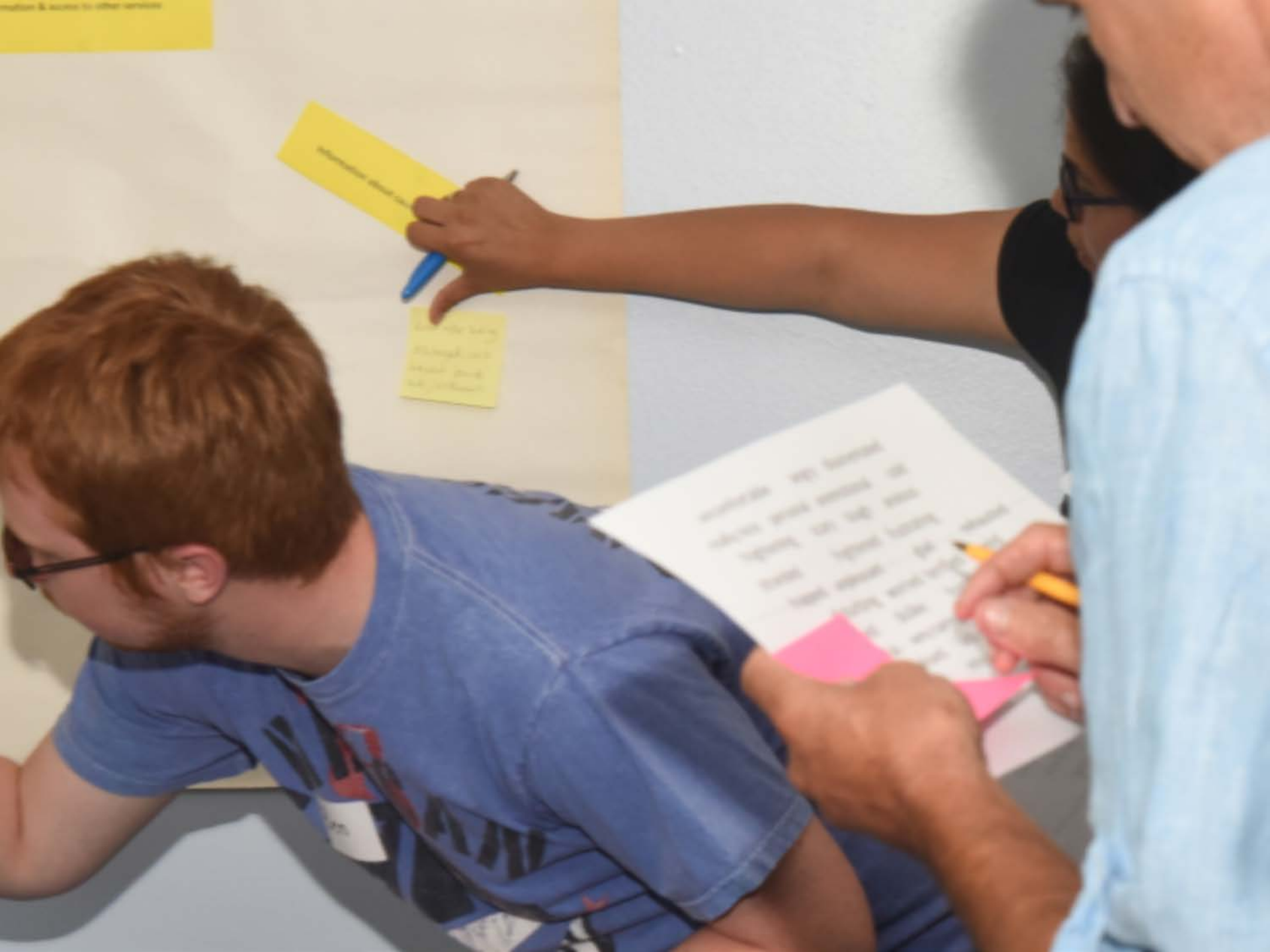

RAPID
CTCA

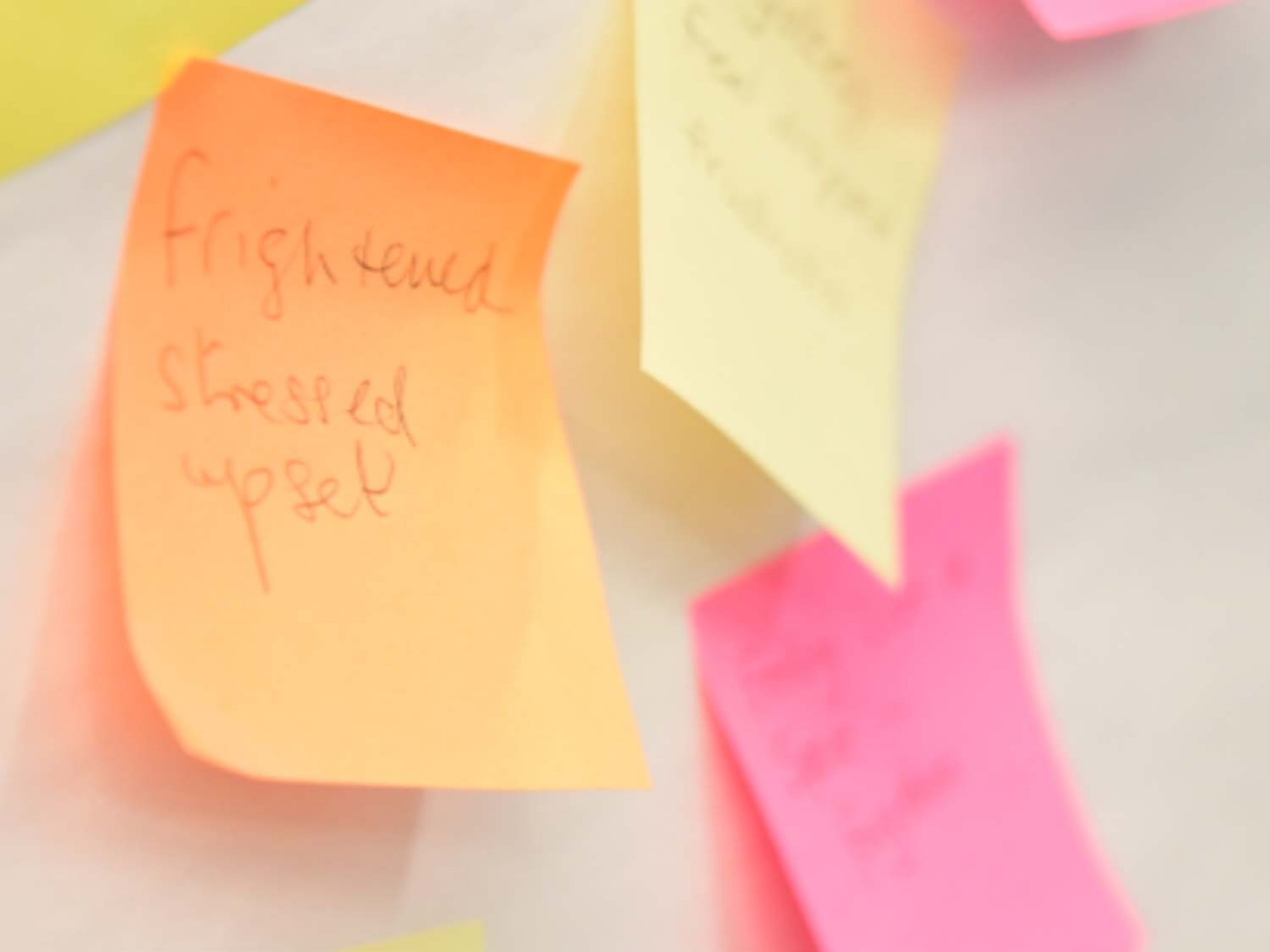
“a good A&E department will obtain a deep understanding of what patients think of the service that has been provided and how they believe it can be improved, and will act upon this feedback to improve their service”


elanic


MINAR ROOM


Staff Priorities
More Equipment
ECG machine
Portable Obs machine
Space & Environment
Physical space
Temperature control
Elderly & Mental Health
Speciality Pull
Different pathway
Recognition & Appreciation
Thank you, feedback, Updates, communication
Chairs
Time taken to find a chair
Pillows
To aid comfort
Tea
Sociability
Hydration matters
Buzzers
A mechanism to alert/attract staff
Volunteers
To welcome, make tea, chat, support
Information & Communication
Verbal & Visible
Manage expectations




frightened
stressed
upset


58
39
45
19
16
6
32
40
12
22
22
13

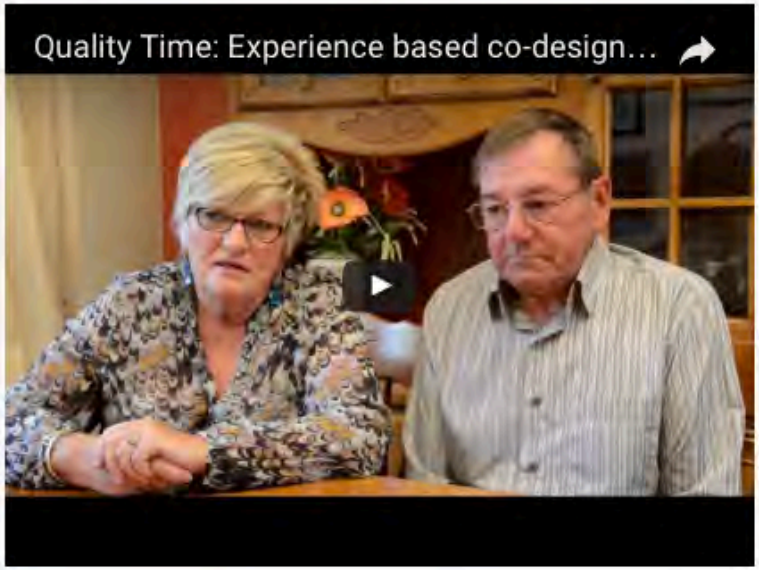
Trigger films for service improvement

Topics | Information & Resources

- Overview
- Asthma
- Atrial fibrillation
- Autism
- Caring for someone with dementia - dealing with the system
- Caring for someone with dementia - the experience of carers
- Coordinating Care
- Desperately not seeking health care; autistic patients and primary care
- Diabetes type 2
- End of life care
- Ethnic minority mental health
- Experiences of unexpected maternity care

◂ Previous Topic | Next Topic ▸

Quality Time: Experience based co-design in the emergency department



Outstanding Contribution to Portfolio Research: Dr Liza Keating

Dr Keating is a consultant sharing her time between the emergency department and intensive care unit at the RBH. She has made an outstanding contribution to NIHR Portfolio research in the urgent care setting. Dr Keating leads by example and works hard to foster a culture of research, helping and encouraging the research team around her. She facilitates the thoughtful planning and efficient implementation of research studies, involving patients and staff.

Innovation in Patient and Public Involvement: Quality Time Study Team

Quality Time is a research study based in the RBH Emergency Department (ED). It uses a qualitative methodology called Experience-based Co Design which gathers the experiences of the ED from a patient, carer and staff perspective and they work together as equals to co-design improvements in the delivery of healthcare.

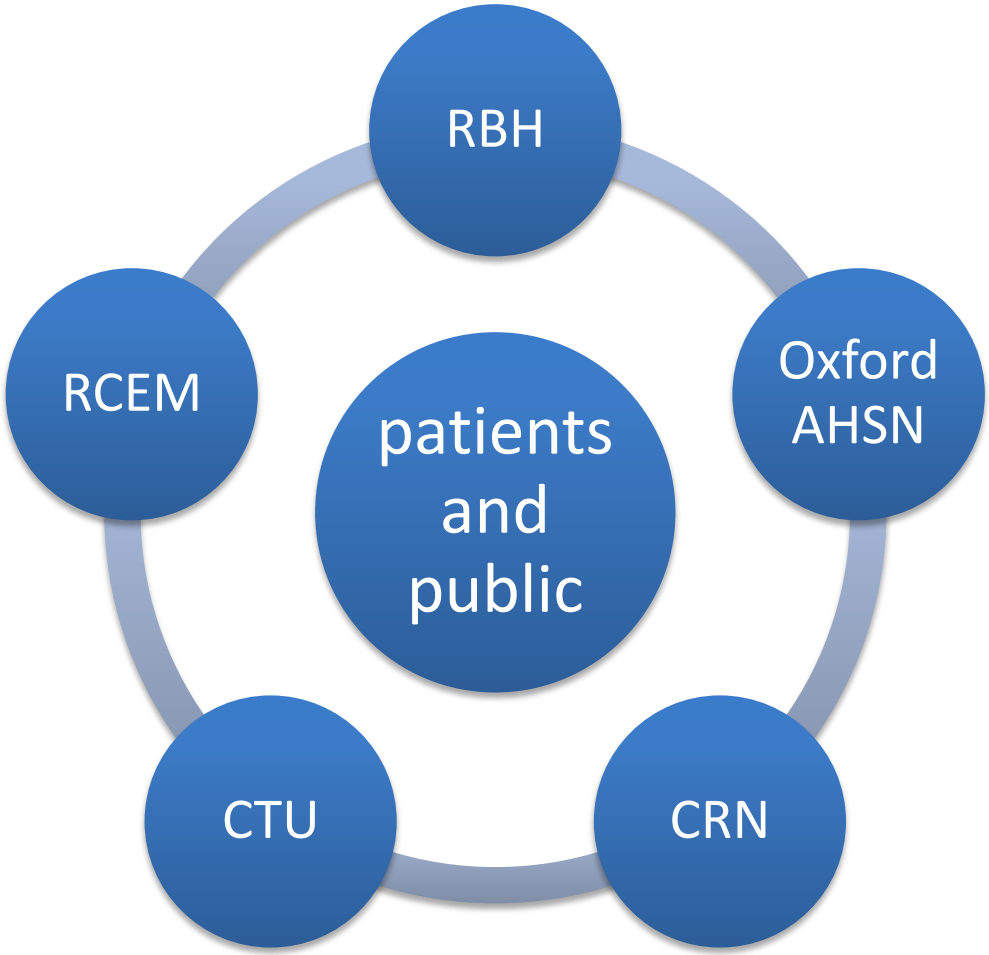
Best Green Shoots Research: Stroke Research Team.

The Royal Berkshire NHS Foundation Trust's Stroke Research team have developed a balanced portfolio of stroke studies over a number of years and have enrolled more than 1,500 patients in research, which has allowed patients to gain access to novel drug therapies or cardiac pathways and feedback has always been hugely positive.

Research Champion: Atul Kapila.

Dr Kapila , Consultant Anaesthetist at the Trust has taken on local and national lead investigator roles for numerous Phase II – IV trials. He is also the co-lead for the Thames Valley and South Midlands Anaesthetics, peri-operative medicine and pain speciality group, and is Research and Development Director at the Trust.

Innovative bridges, (ice-cream), impact...




Ambulances Only

HUGE thanks to...

- All patients involved
- Medical photography at Royal Berkshire Hospital
- All staff involved especially Melanie Gager and Liza Keating
- David Porter, Implementation manager, LCRN
- RCEM for 3 research grants
- LCRN for awarding 2 fellowships to the RBH 2017/18
- **AHSN for allowing us to share our work today**

R & D collaborations

Dr Atul Kapila, Director of R & D and Consultant Anaesthetist, Royal Berkshire

Emily Moore, Director Thames Valley Clinical Trials Unit

Atul.kapila@royalberkshire.nhs.uk

Emily.moore@reading.ac.uk

Clinical research in a DGH?

Dr Atul Kapila BSc, MBBS, FRCA

Consultant Anaesthetist

R&D Director

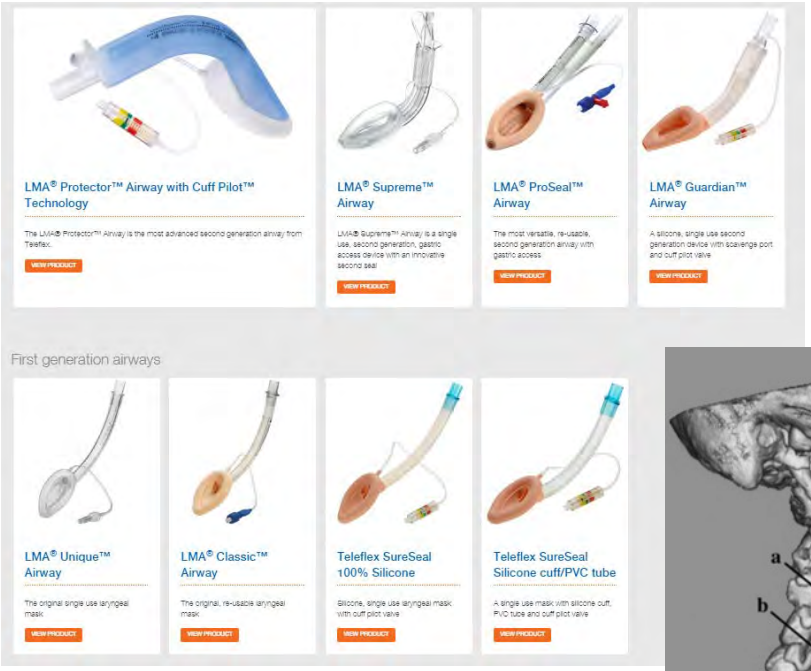
Royal Berkshire NHS Foundation Trust

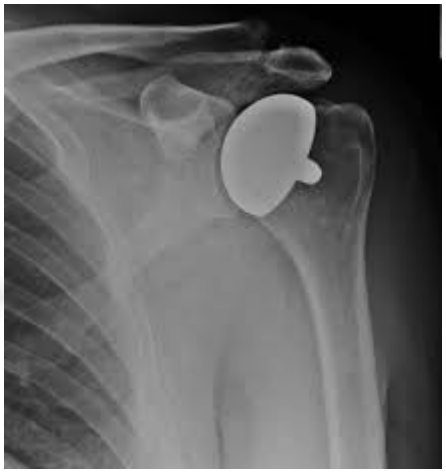
Anaesthesia, Perioperative Medicine and Pain Management Specialty Group Lead

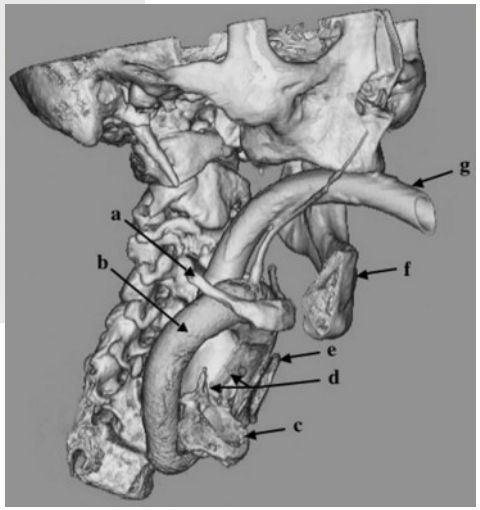
NIHR Thames Valley and South Midlands CRN

Thames Valley Clinical Trials Unit

2nd May 2017


LMA® Protector™ Airway with Cuff Pilot™ Technology
The LMA® Protector™ Airway is the most advanced second generation airway from Teleflex.
VIEW PRODUCT
LMA® Supreme™ Airway
LMA® Supreme™ Airway is a single use, second generation, gastric access device with an innovative second seal
VIEW PRODUCT
LMA® ProSeal™ Airway
The most versatile, re-usable, second generation airway with gastric access
VIEW PRODUCT
LMA® Guardian™ Airway
A silicone, single use second generation device with scavenge port and cuff pilot valve
VIEW PRODUCT
First generation airways
LMA® Unique™ Airway
The original single use laryngeal mask
VIEW PRODUCT
LMA® Classic™ Airway
The original, re-usable laryngeal mask
VIEW PRODUCT
Teleflex SureSeal 100% Silicone
Silicone, single use laryngeal mask with cuff pilot valve
VIEW PRODUCT
Teleflex SureSeal Silicone cuff/PVC tube
A single use mask with silicone cuff, PVC tube and cuff pilot valve
VIEW PRODUCT

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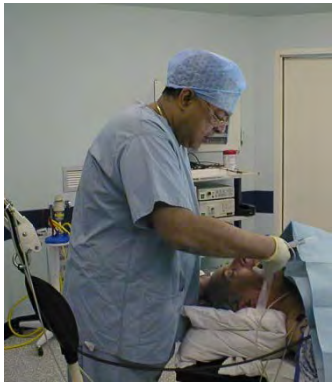

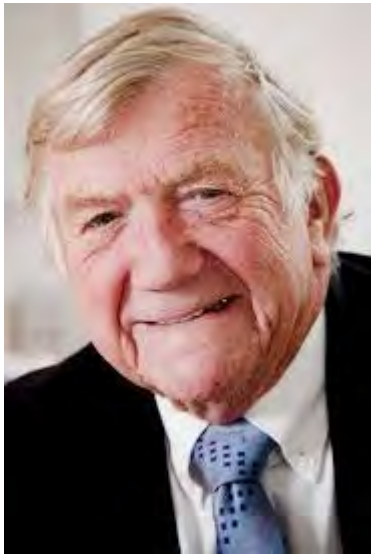

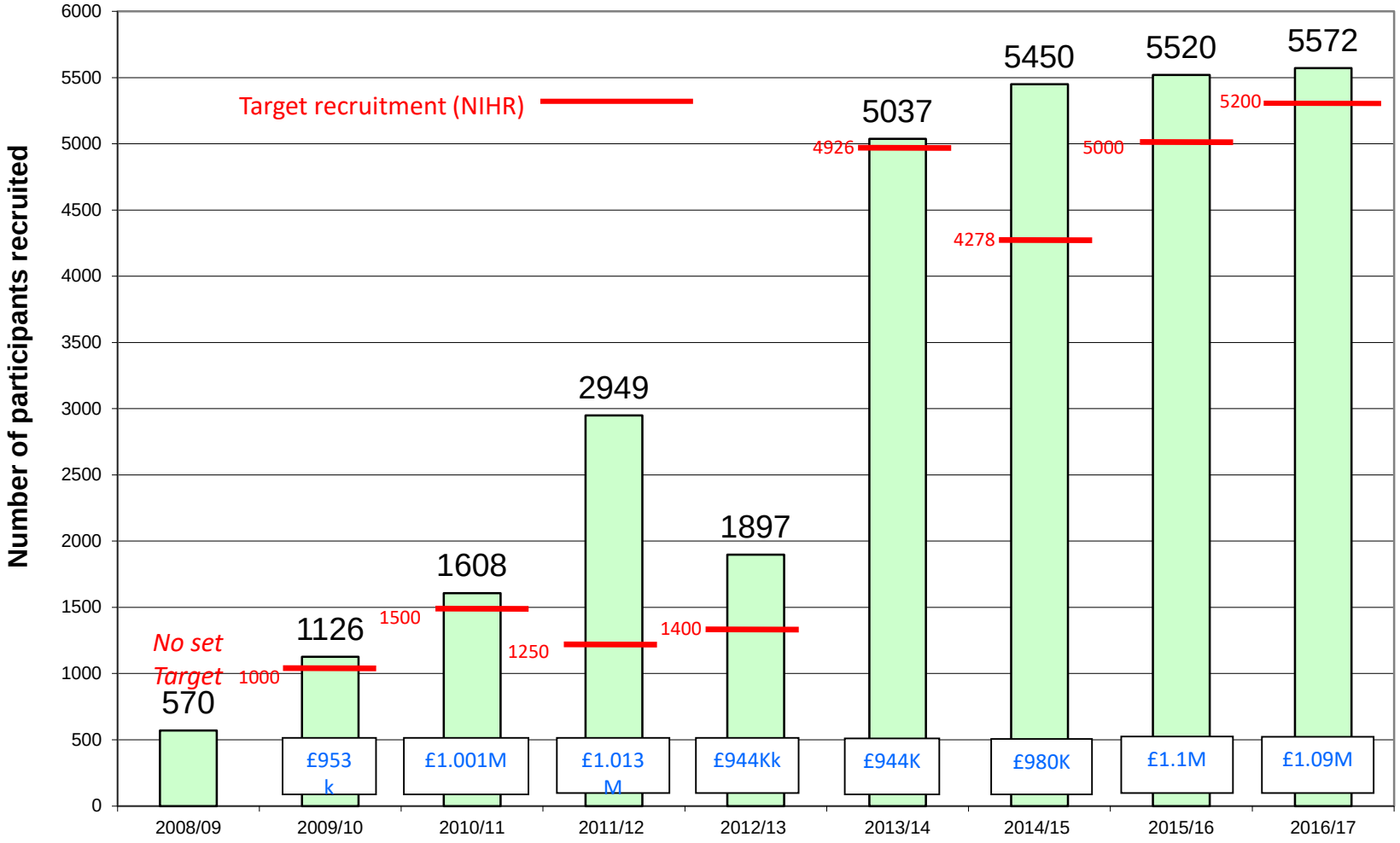
Number of participants recruited
6000
5500
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Target recruitment (NIHR)
No set Target
1000
1500
1250
1400
4926
5000
4278
5200
570
1126
1608
2949
1897
5037
5450
5520
5572
£953 k
£1.001M
£1.013 M
£944Kk
£944K
£980K
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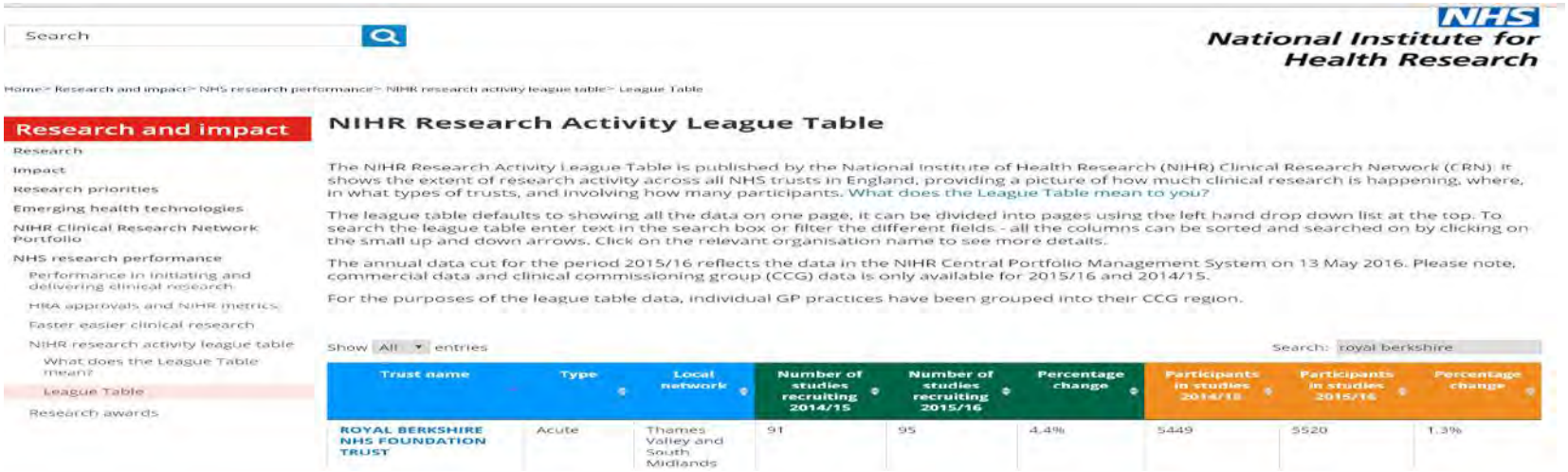
2014/15
2015/16
2016/17



2016 League tables: RBFT 19th out of 459 entries (all Trusts) recruiting to clinical research (Heart of England NHS Trust 15th overall)

RBFT 2nd highest recruiting DGH in England (Heart of England 1st)

2015 League tables: RBFT 21st out of 161 Acute Trusts recruiting to clinical research

RBFT 2nd highest recruiting DGH in England (Heart of England 1st)

2014 League tables: RBFT 33rd out of 260 Acute Trusts recruiting to clinical research

RBFT 4th highest recruiting DGH in England

2013 League tables: RBFT 51st out of 405 Acute Trusts recruiting to clinical research

RBFT 4th highest recruiting DGH in England

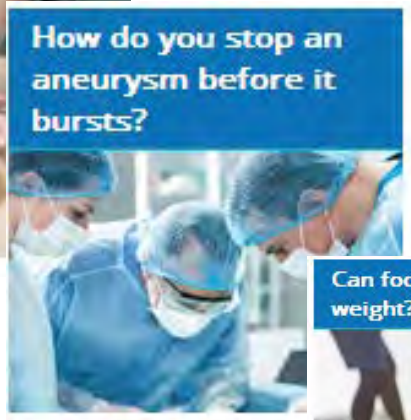
Research & Development
What are we looking to achieve?

That every person coming through our doors is aware that we are a research active organisation and if eligible, have the opportunity to participate

10 years of impact

Throughout the last 10 years the NIHR has facilitated research that helps to answer key questions for the NHS

NHS
National Institute for Health Research



NHS
National Institute for Health Research
Clinical Research Network

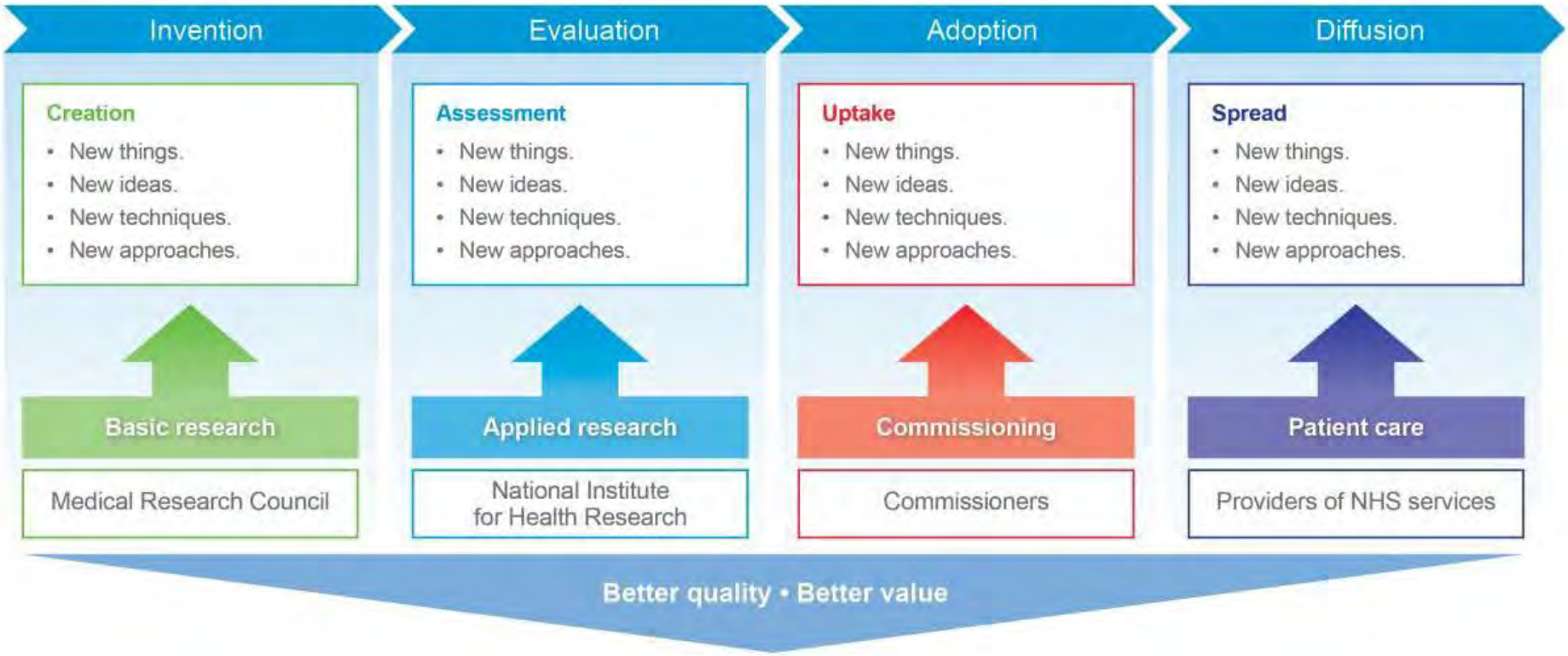
One national network

- Research active engaged clinicians across all 30 therapy areas
- Detailed understanding of care pathways

Supporting the life-sciences industry in UK clinical research delivery

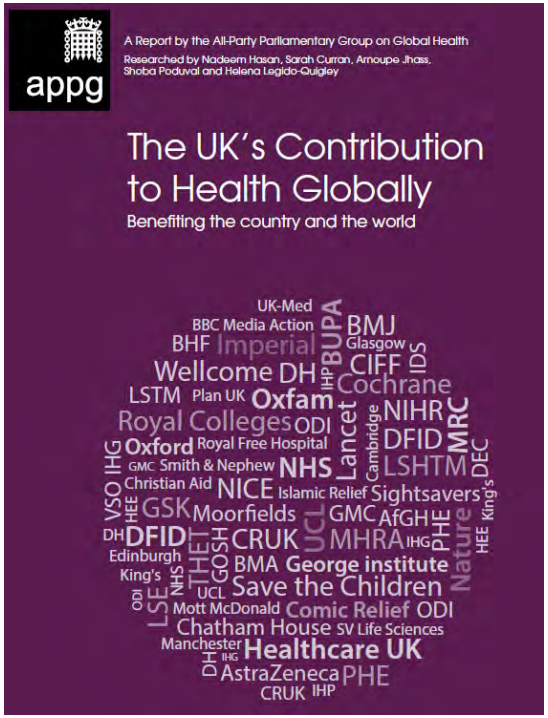
The research pathway

NHS
National Institute for Health Research



"While the UK represents just 0.9% of global population, 3.2% of R&D expenditure, and 4.1% of researchers, it accounts for 9.5% of downloads, 11.6% of citations and 15.9% of the world's most highly-cited articles. Amongst its comparator countries, the UK has overtaken the US to rank 1st by field-weighted citation impact (an indicator of research quality)."

International Comparative Performance of the UK Research Base – 2013



"……. research active Trusts …..have **lower risk-adjusted mortality for acute admissions**, which persisted after adjustment for staffing and other structural factors"

PLOS ONE

Research Activity and the Association with Mortality

•Baris A. Ozdemir, Alan Karthikesalingam, Sidhartha Sinha, Jan D. Poloniecki, Robert J. Hinchliffe, Matt M. Thompson, Jonathan D. Gower, Annette Boaz, Peter J. E. Holt

Published: February 26, 2015

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0118253


INTERNATIONAL
CLINICAL
TRIALS DAY
GSK

- Students – undergrads to existing staff
- PhD/MSc
- NIHR ACFs
- LCRN Fellows
- Will need clinical/academic lecturers
- Academic PAs?
- Clinical research facility

COLLABORATION

At Royal Berkshire Hospital, a surgeon and an anaesthetist go into surgery. They are using the outputs from clinical trials to enhance their work as part of a new strategic partnership between the University of Reading, the Royal Berkshire NHS Foundation Trust and the Berkshire Healthcare NHS Foundation Trust.

The University of Reading, the Royal Berkshire NHS Foundation Trust and Berkshire Healthcare NHS Foundation Trust have a history of working together to deliver high quality research to improve patient care and the three organisations recognise the considerable benefits of working collaboratively.

The Thames Valley Clinical Trials Unit represents a natural evolution in the existing long-term relationship and will deliver impactful research to help tackle the ever-increasing demands of complex and chronic health conditions, by expanding clinical research activities in the region. This will enable us to utilise the significant research, medical and clinical expertise in the Thames Valley area to improve patient care and wellbeing. The multi-disciplinary team across the three organisations brings together clinicians, research nurses, trial managers, IT/data experts, statisticians and quality assurance professionals.

tvctu Thames Valley Clinical Trials Unit

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SUPPORTING A STEP CHANGE IN CLINICAL RESEARCH CAPABILITY IN THE THAMES VALLEY

tvctu@reading.ac.uk

Photographer: Laura Bennetto

TV&SM LCRN 2015/16 National ratings

- LCRN is the 1st highest recruiting network in terms of recruitment per head of population (1st/15).
- RBFT 2nd highest recruiting Trust nationally in 'large acute' category (2nd/44) *(Heart of England NHS Foundation Trust, Birmingham were 1st)*
- Buckinghamshire Healthcare NHS Trust 2nd highest 'medium acute' (2/47) and Milton Keynes top recruiter in the 'small acute' Trust category (1st/26).
- OUH 2nd highest recruiting Trust in the country with 21,169 participants *(Guy's 7 St Thomas's 1st with 27,813*)
- Berkshire Healthcare HS Trust increased its activity by 20% (16th/52).

International Clinical Trials Day

20th May 2016

Oxford Academic Health Science Network

Death rates fall after RBH trials

By Natalie Slater
May 22, 2009

Leslie Frederick and the RBH research and development team

New chip and pill on 'unique' hospital trial

By Linda Fort
May 21, 2010

Clinical trials day at Royal Berkshire Hospital yesterday. Pictured are some of the staff, including Dr Charlie McKenna, the consultant cardiologist

RESEARCH: hospital tests new methods

Trials for cures

Clinic Trials Day at Royal Berks

By Laura McCardle
June 14, 2012

RBH staff are carrying out 145 clinical trials in a range of departments

Joining forces to develop prostate cancer test

By Natasha Adkins
May 22, 2013

'It's OK to ask': Clinical trials staff show off their new logo, with RBH medical director Alistair Flowerdew and research nurse Rachel Carson at the front

Royal Berkshire Hospital: unique research in the emergency department

19:00, 28 May 2015 BY LINDA FORT

The emergency department team will be filming volunteer patients to share their experience and make improvements

674 SHARES

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Royal Berkshire Hospital emergency department - Sister Melanie Gager, Dr Liza Keating, Matron Brenda Morton and Dr David Mossop

Most People Would Do Clinical Trial

20th May 2016, 12:51

A survey of the Thames Valley has found 93% of people living in Berkshire, Oxfordshire and Buckinghamshire would be willing to take part in a clinical trial.

Currently, the Royal Berkshire NHS Foundation Trust alone take part in around 200 trials every year.

It's thought 10,000 patients have taken part in the past two years and the majority have had access to drugs which haven't yet reached the marketplace.

The Trust receive around £1 million a year of government funding to encourage research and development and tell us they are keen to boost patient participation and for more clinical staff to come up with their own suggestions and ideas based on their day-to-day experience.

Like 4 0 Share 4 Comments

Clinical Trials in Royal Berkshire Hospital

Wednesday, May 21st 2014
05:00

News Home | More from Local News

More patients encouraged to sign up to their trials.

"It's ok to ask" - the official word from bosses at the Royal Berks - as they step up their clinical trials business.

The Foundation Trust's Research and Development department are pushing hard to up the ante on the levels of involvement in their research studies.

As well as patients with diagnosed diseases such as diabetes of kidney failure, people with broken bones and other injuries are also now able to join the thousands who have already signed up to trials.

Last year there were more than 5000 people recruited into 102 different projects - up from 570 in 2009.

This year, they're hoping for even more.

heart 102.9 97.0 more music variety

Home | Radio | News | Entertainment | Lifestyle | Quirky | Events | Win | Charity | Bingo | TV

Home > News > Local News

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Like 4

0

Share 0

Comments

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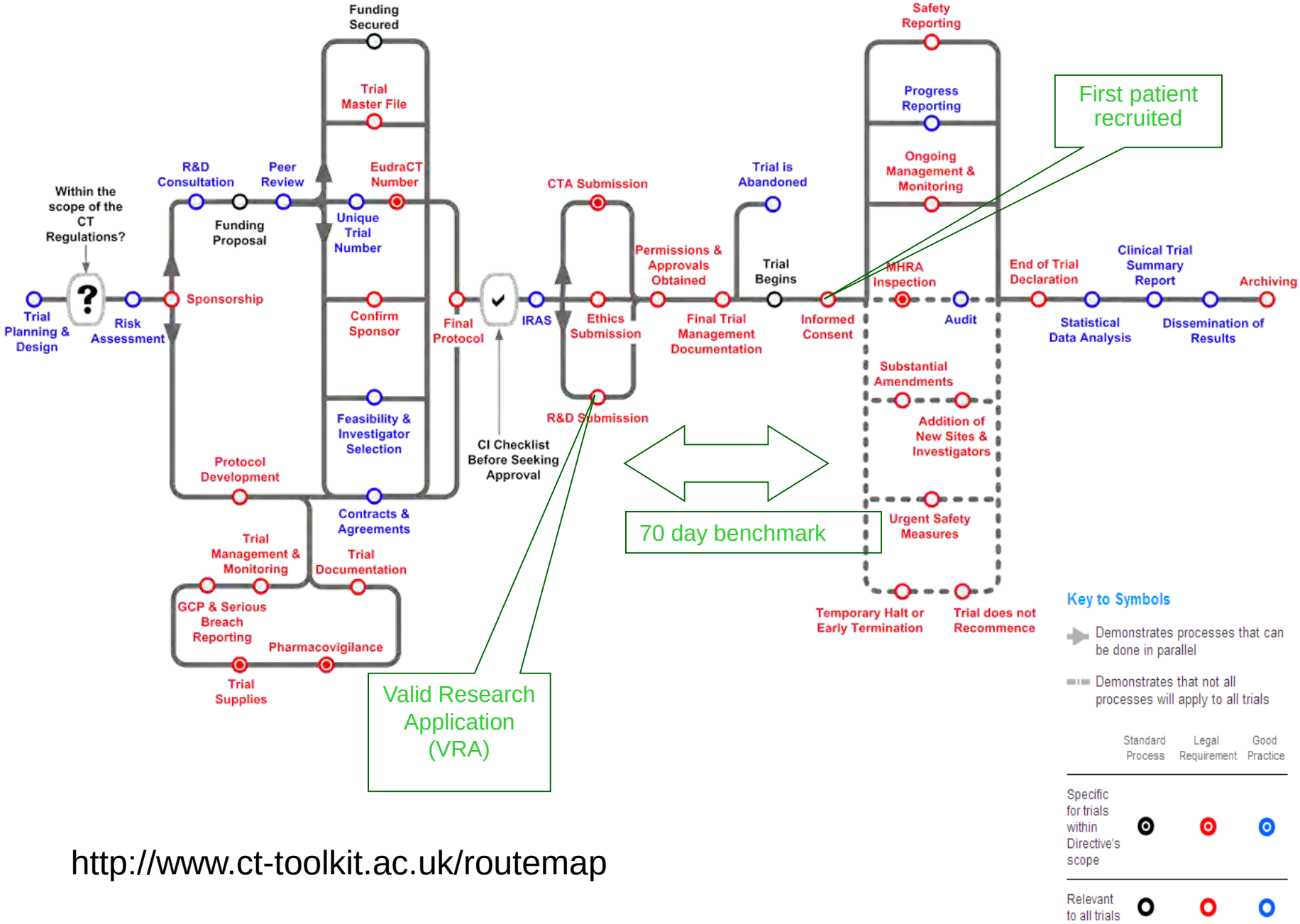
But what is it really like for the patients on these trials?

Listen below to Les Killick from Caversham speaking to our reporter Adam Evans.

Les's Story

http://www.heart.co.uk/thamesvalley/news/local/most-people-would-do-clinical-trial/#tTDR7gfXusYzGREj.97



http://www.ct-toolkit.ac.uk/routemap

Thames Valley Clinical Trials Unit

TVCTU - Past, present, future

Emily Moore
Executive Director

tvctu.org

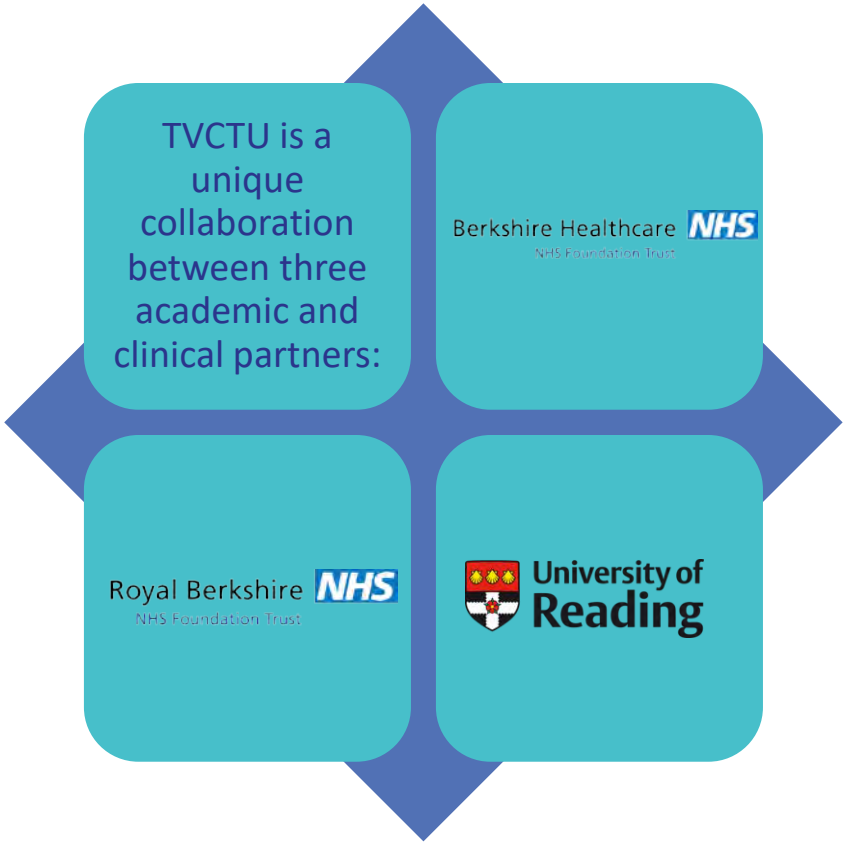
@tvctu

Berkshire Healthcare NHS Foundation Trust

University of Reading

Royal Berkshire NHS Foundation Trust

Who we are


TVCTU is a unique collaboration between three academic and clinical partners:
Berkshire Healthcare NHS
NHS Foundation Trust
Royal Berkshire NHS
NHS Foundation Trust
University of Reading

Milestones

Milestones

2015/16: Collaboration established and preliminary work

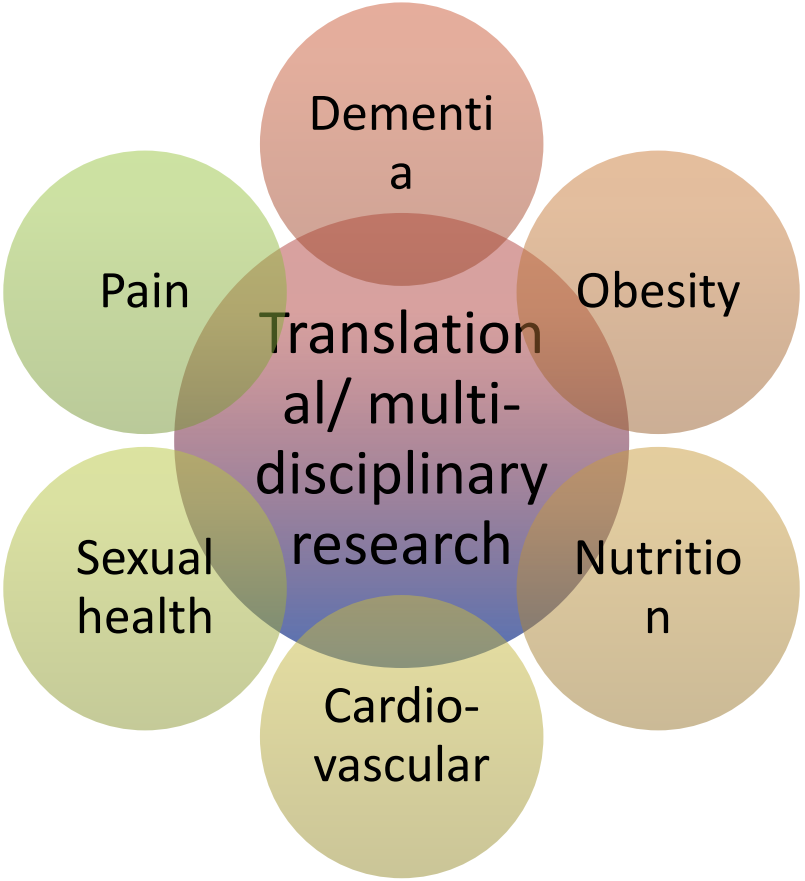
Sep 2016: First executive Director appointed

Oct 2016: First TVCTU supported project funded

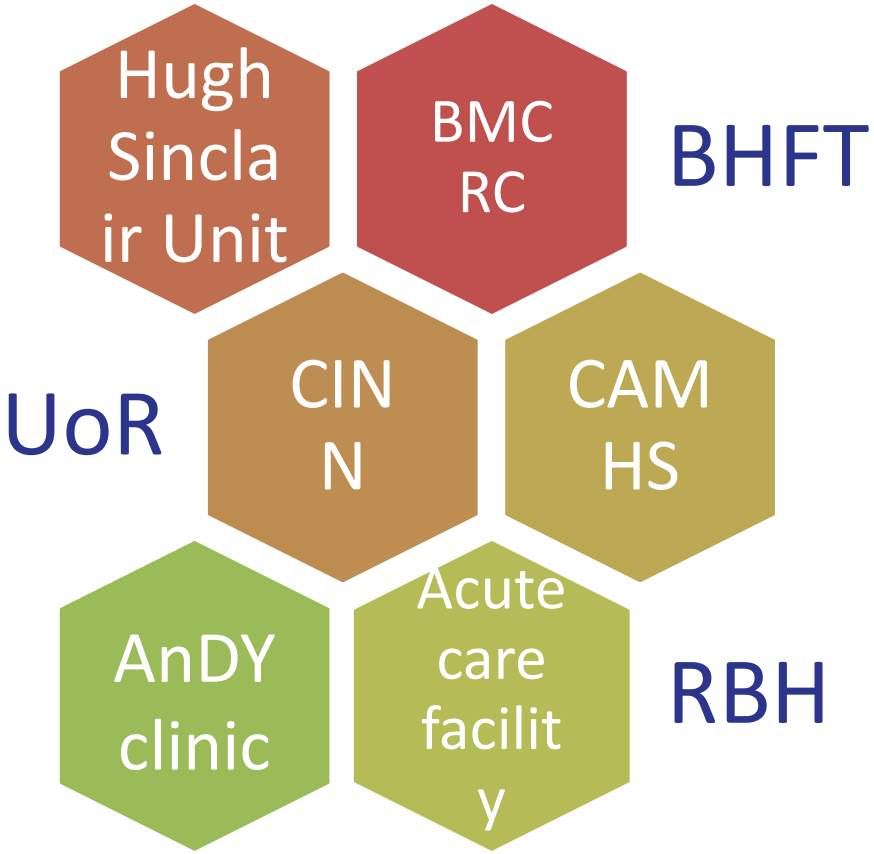
Mar 2017: First participants recruited

Apr 2017: Submission for UKCRC registration

Current Expertise



Our facilities



What support can TVCTU offer?

Design and Funding

- Trial design advice and support
- Grant submissions and costing

Set up

- Regulatory and ethical submissions (HRA, IRAS)
- Randomisation

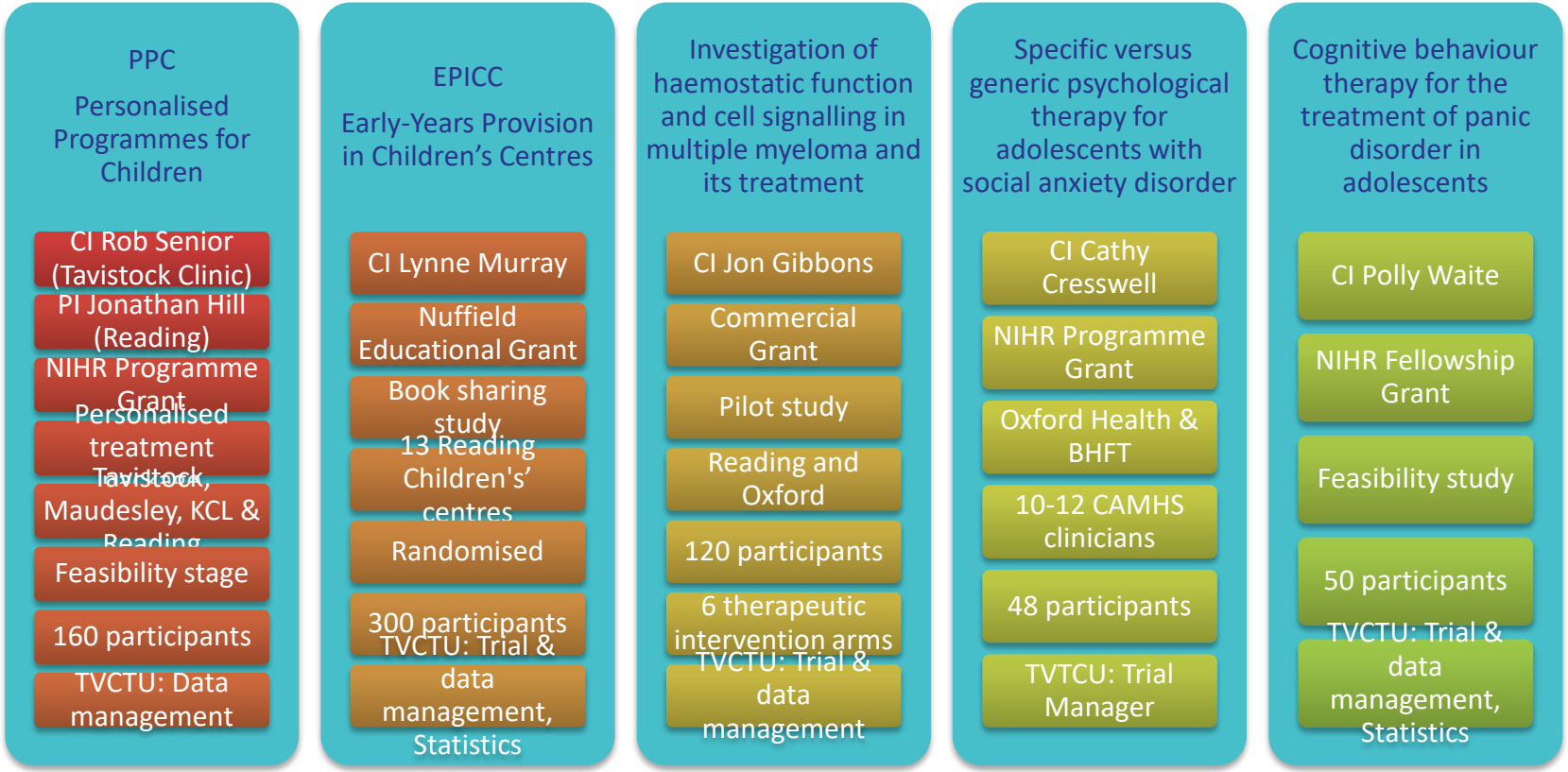
Study management

- Site and document management
- Recruitment support

Analysis and Reporting

- Data management via web-based database
- Statistical analysis, reporting and publication

Active Projects



The Future

Our vision:

- Supporting a step change in clinical research capability in the Thames Valley

Our goals:

- To raise the profile of health research in the Thames Valley
- To build new partnerships with existing researchers in the region
- To provide support to new and developing researchers
- To provide opportunities for more patients in the region to participate in, and benefit from, research