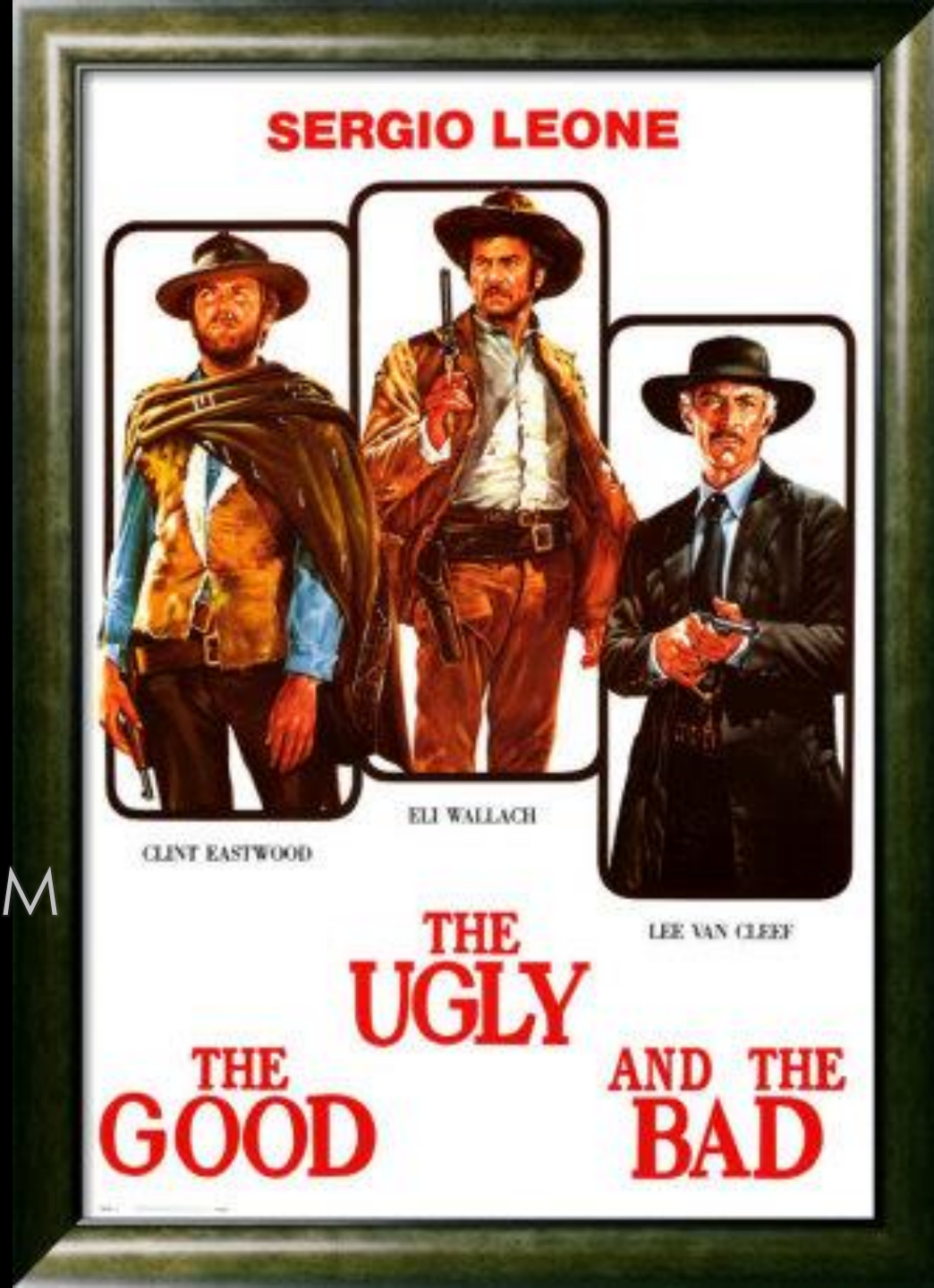


LEVEL 1/PACU

DR THEARINA DE BEER

MBChB, FRCA, DICM, FICM



ABOUT ME:

- CONSULTANT IN CRITICAL CARE AND ANAESTHESIA AT NOTTINGHAM UNIVERSITY HOSPITALS
- MASTERS IN LAW AND ETHICS (HEALTH LAW)
- ACUTE PATHWAY LEAD FOR CRITICAL CARE, CCOT, THEATRES, ANAESTHETICS, RESUSCITATION, SPIRITUAL AND PASTURAL CARE, NUH



COI:



WHERE DO WE SEND THIS PATIENT?

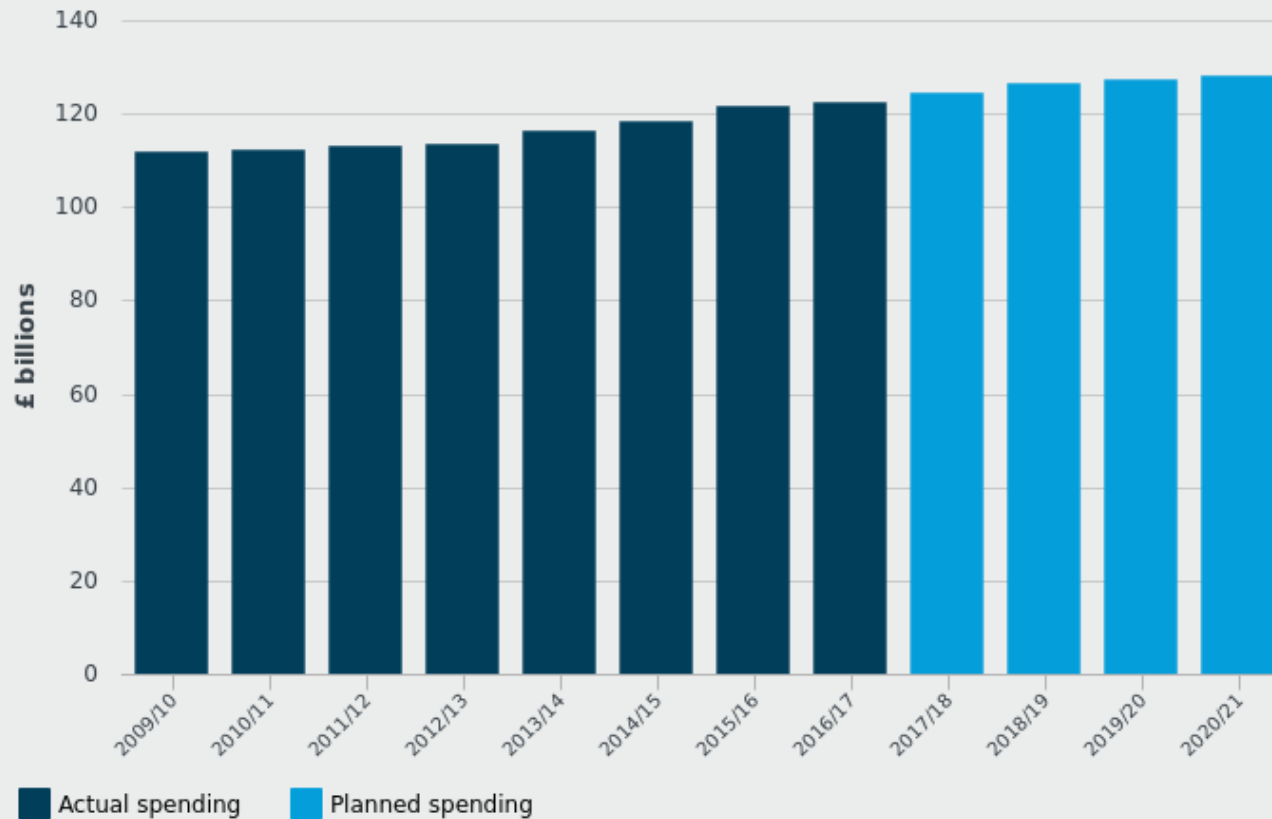
- HEPARIN INFUSION?
- PATIENT WITH AN EPIDURAL ?
- PATIENT WITH A PCA?
- HIGH FLOW OXYGEN?
- POST TONSILLECTOMY PATIENT WHO SNORES BUT HAS NOT BEEN INVESTIGATED?
- PN LONG TERM?
- TRACHEOSTOMY PATIENTS?

MULTIMORBIDITY

- **MULTIMORBIDITY** IS COMMONLY DEFINED AS THE PRESENCE OF TWO OR MORE CHRONIC MEDICAL CONDITIONS IN AN INDIVIDUAL AND IT CAN PRESENT SEVERAL CHALLENGES IN CARE PARTICULARLY WITH HIGHER NUMBERS OF COEXISTING CONDITIONS AND RELATED POLYPHARMACY.
- AROUND 30% OF PATIENTS HAVE MULTIMORBIDITY
- PATIENTS WITH MULTIMORBIDITY ACCOUNT FOR 52.9% OF GP CONSULTATIONS, 78.7% OF PRESCRIPTIONS, AND 56.1% OF HOSPITAL ADMISSIONS.

Department of Health budget

K



Data are the Department of Health total Departmental expenditure limit (TDEL). Figures are expressed in real terms at 2017/18 prices, using deflators published by the Office for Budget Responsibility in November 2017.

Source: Department of Health annual report and accounts 2016/17; Autumn Budget 2017; Office for Budget Responsibility November 2017 Economic and fiscal outlook: Economy supplementary tables.



BRIEFING PAPER

Number 7281, 1 October 2018

NHS Key Statistics: England, October 2018

By Carl Baker

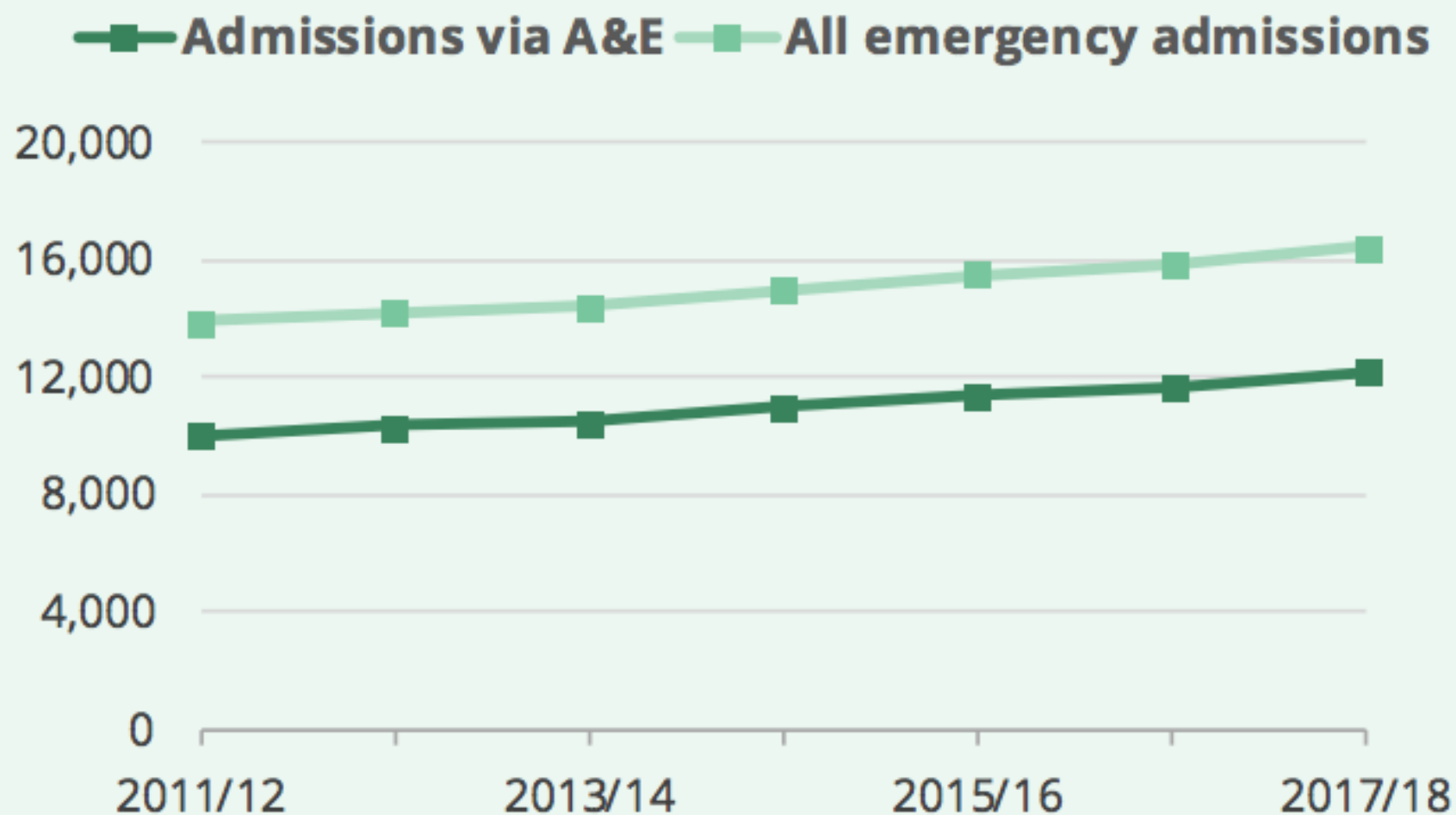
Contents:

1. Accident & Emergency
2. Delayed Transfers of Care
3. Waiting Times for Consultant-Led Treatment
4. Cancer Waiting Times
5. Cancelled Operations
6. Diagnostic Tests: Activity and Waiting Times
7. Ambulance Response Times
8. Doctors, Nurses and other staff
9. Hospital inpatient and outpatient activity
10. Bed Availability and Occupancy



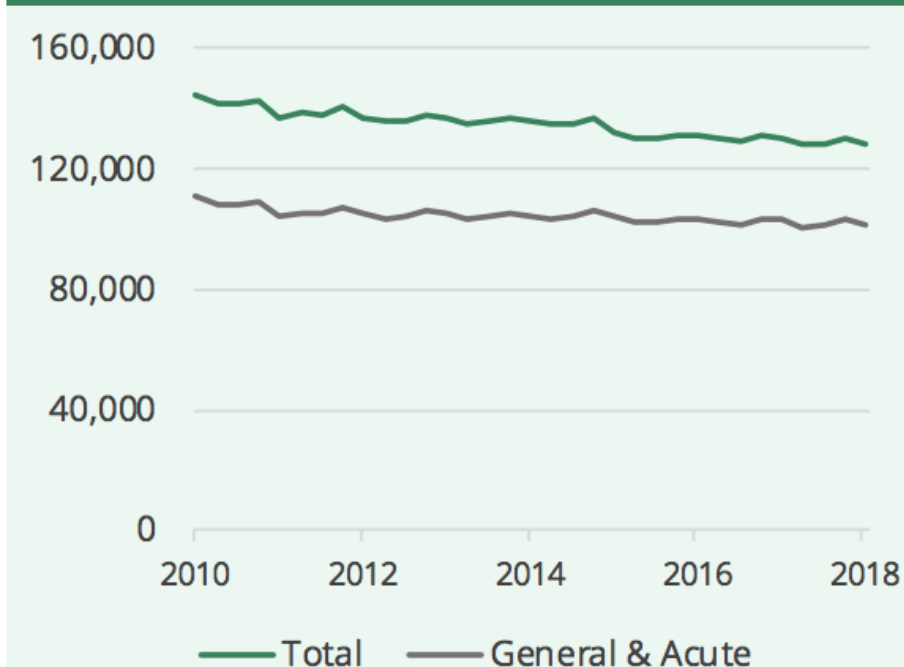
<https://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7281>

IN 2017/18 THERE WERE 2,200 MORE EMERGENCY ADMISSIONS PER DAY THAN IN 2012/13

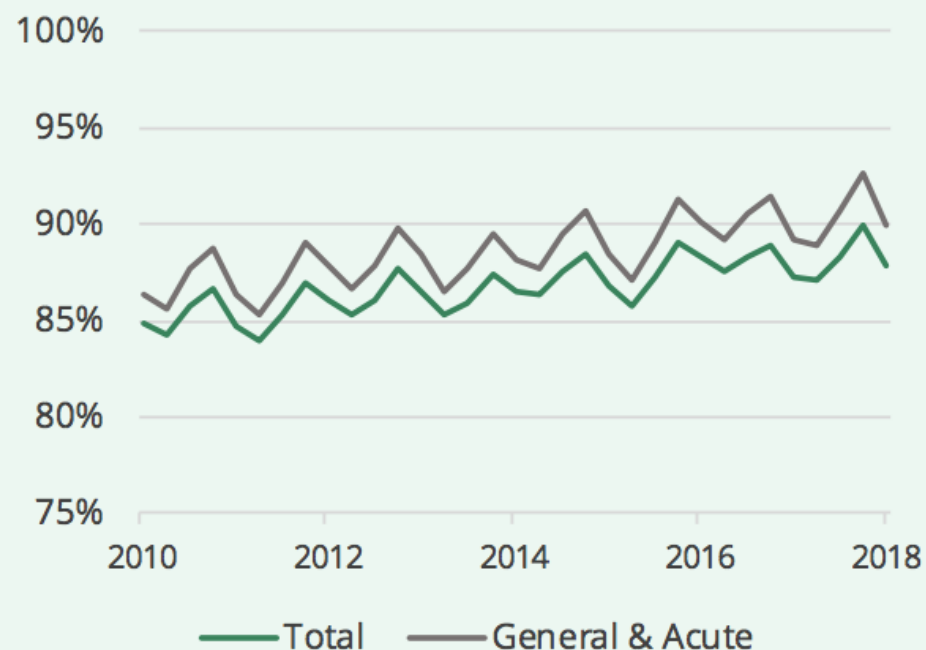


NHS BED OCCUPANCY REACHED RECORD LEVELS IN EARLY 2018

Total number of beds open overnight

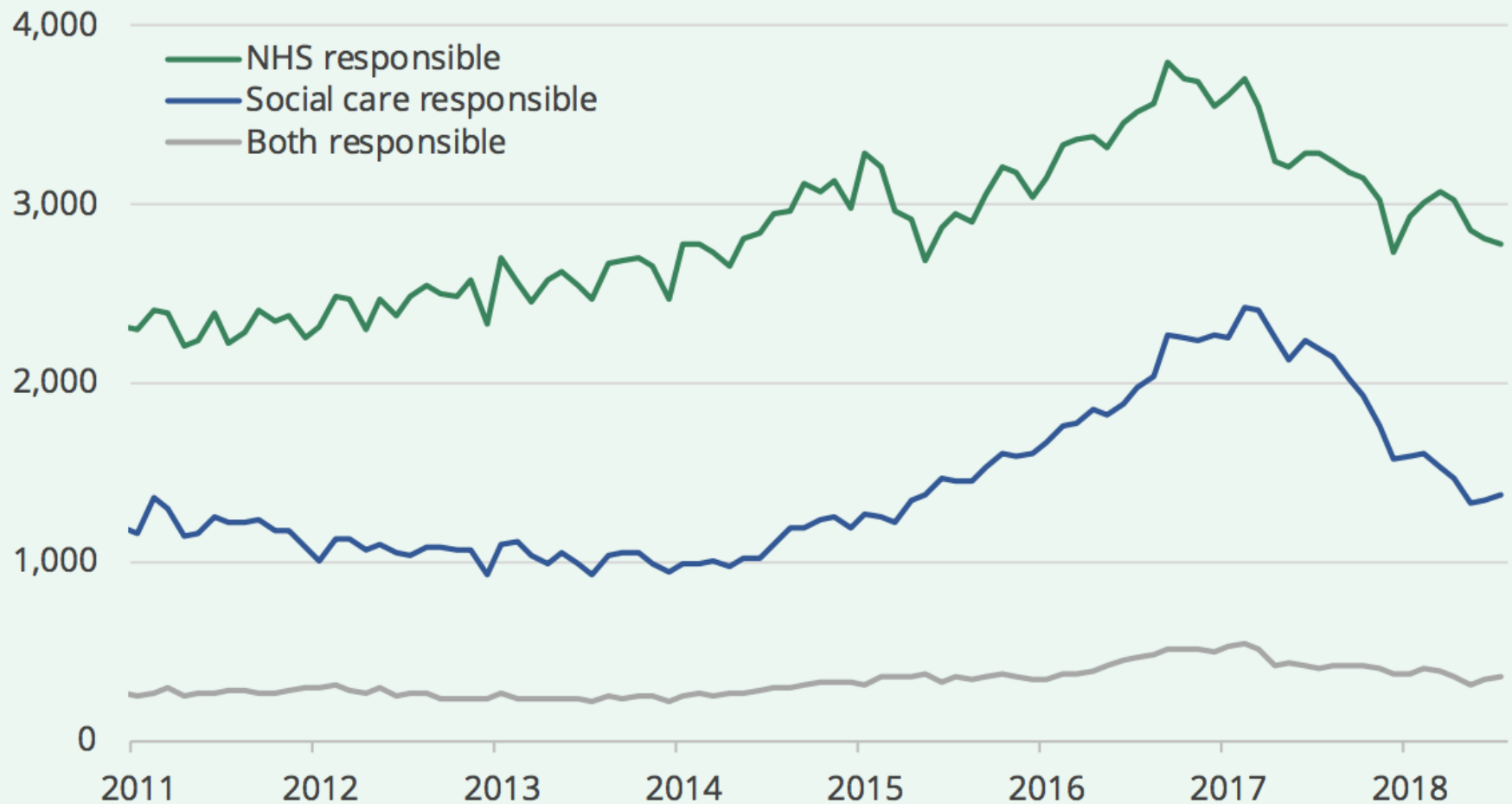


Average occupancy, beds open overnight



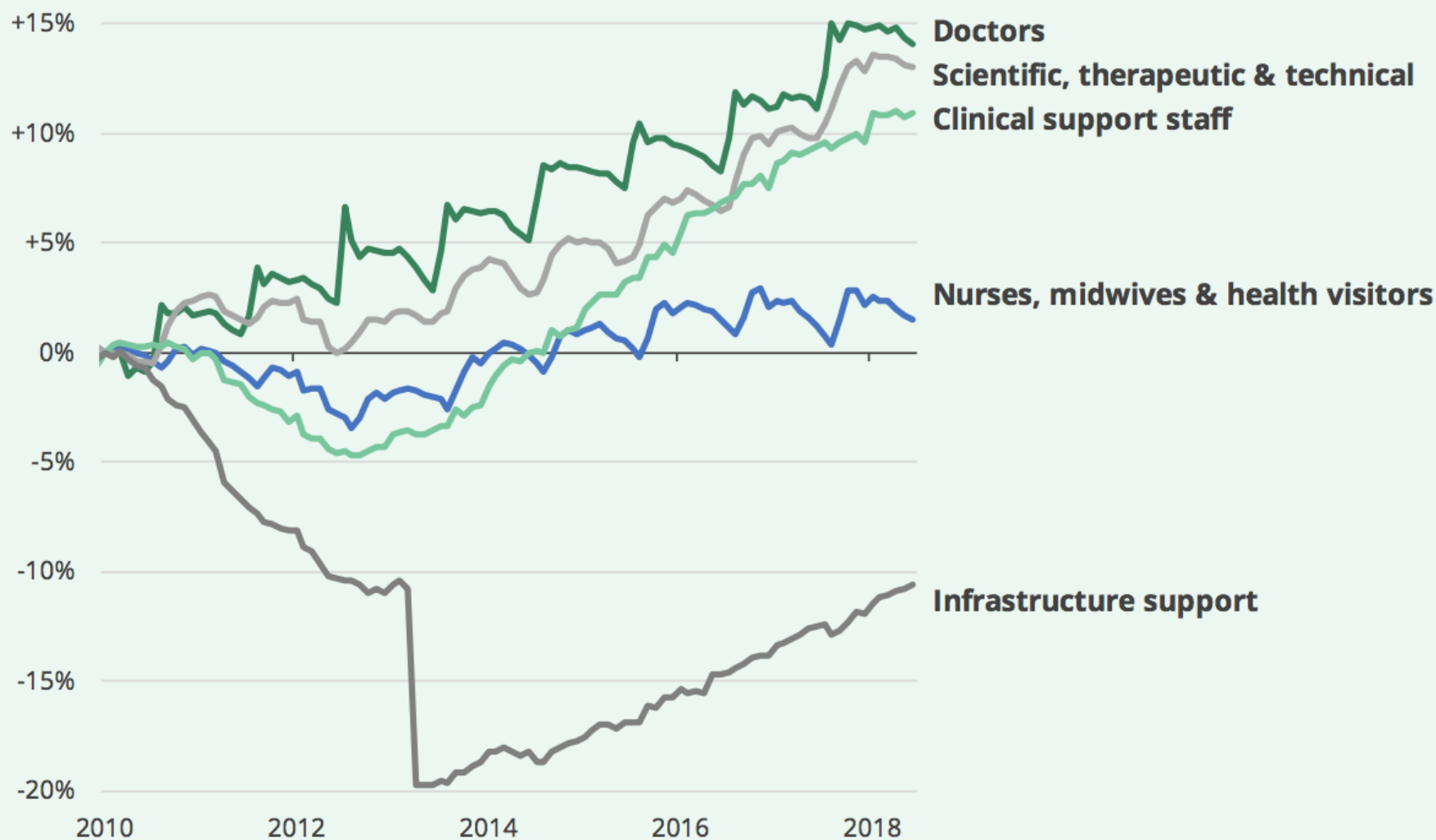
DELAYED DISCHARGES HAVE INCREASED BY 23% IN FIVE YEARS, BUT HAVE FALLEN BY 22% IN THE LAST YEAR

Chart shows the average daily delays by responsible organisation since 2011



THE NUMBER OF DOCTORS HAS INCREASED FASTER THAN OTHER NHS STAFF GROUPS

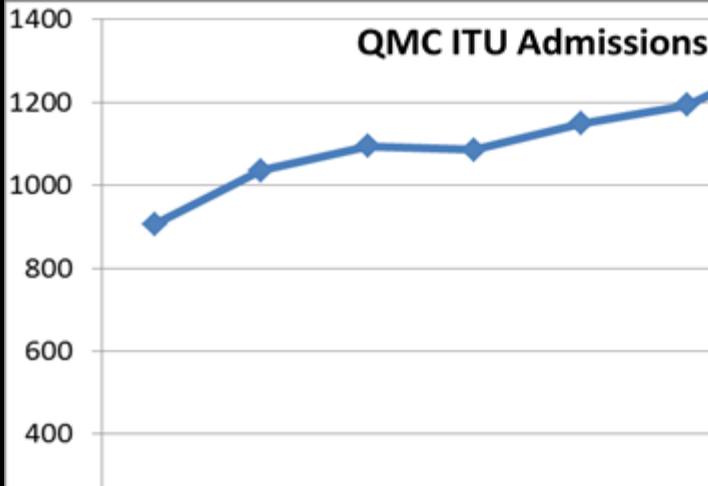
Percentage change since January 2010 in each staff group, FTE, England



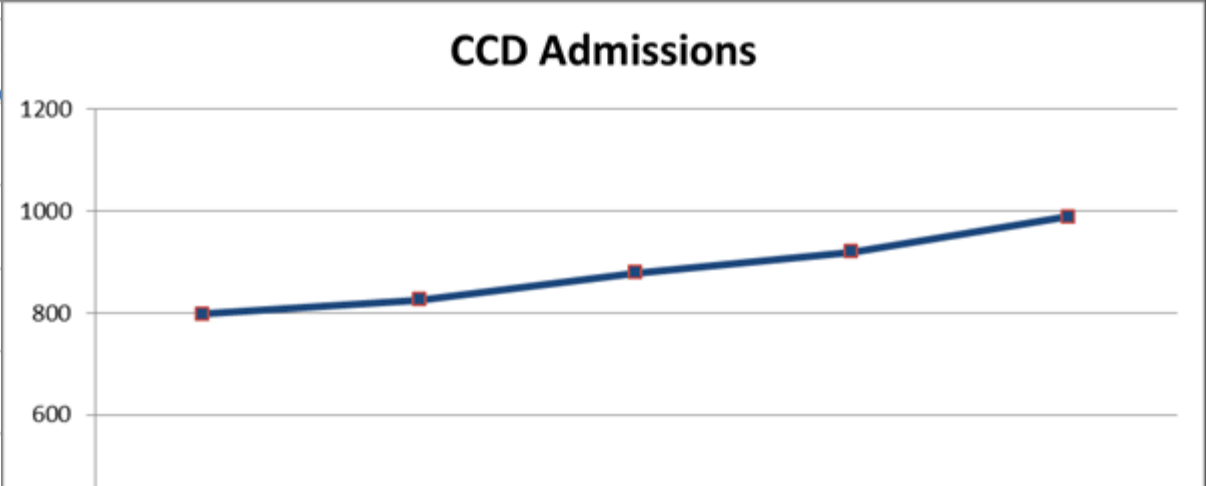


“Data don’t make any sense,
we will have to resort to statistics.”

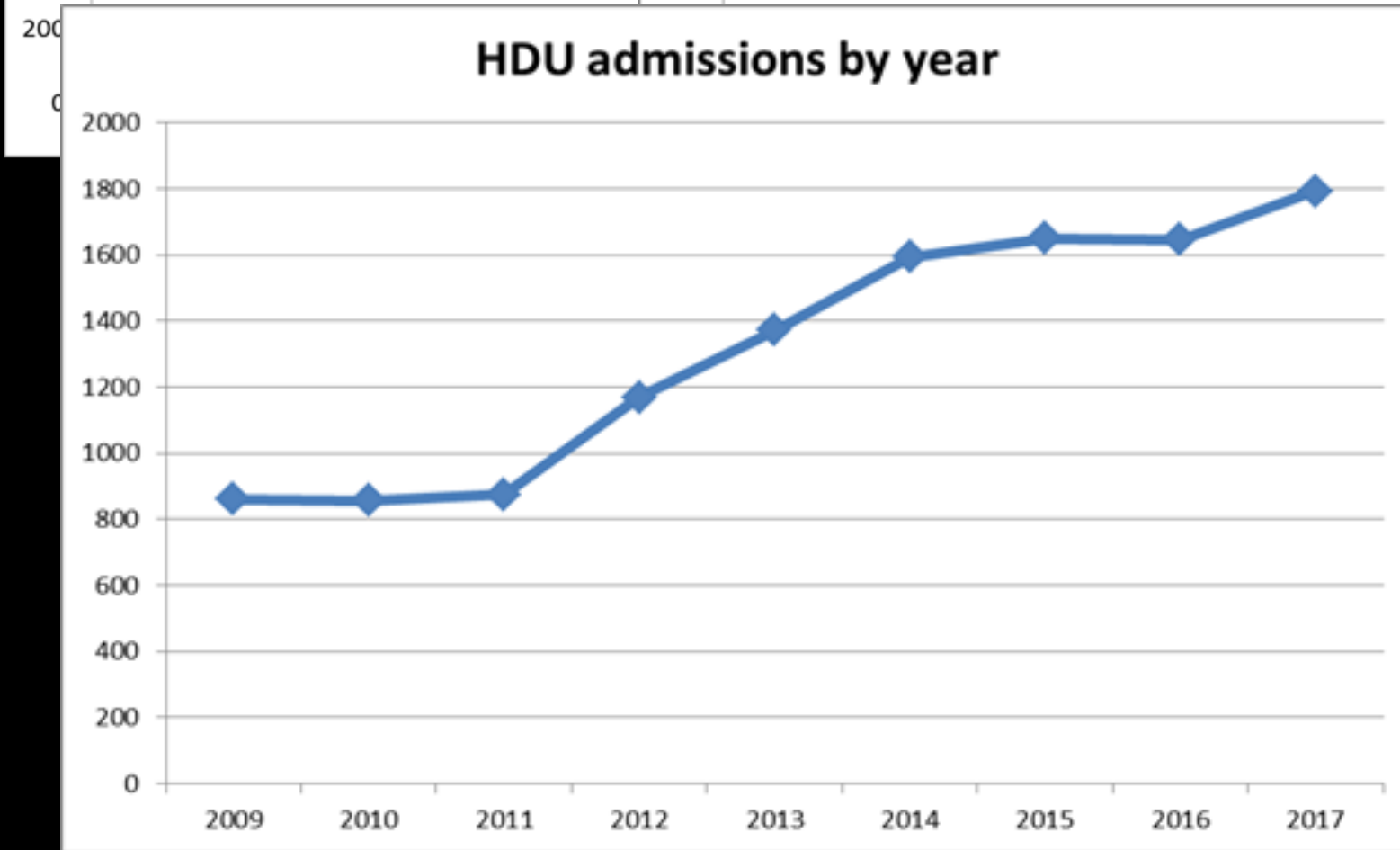
QMC ITU Admissions



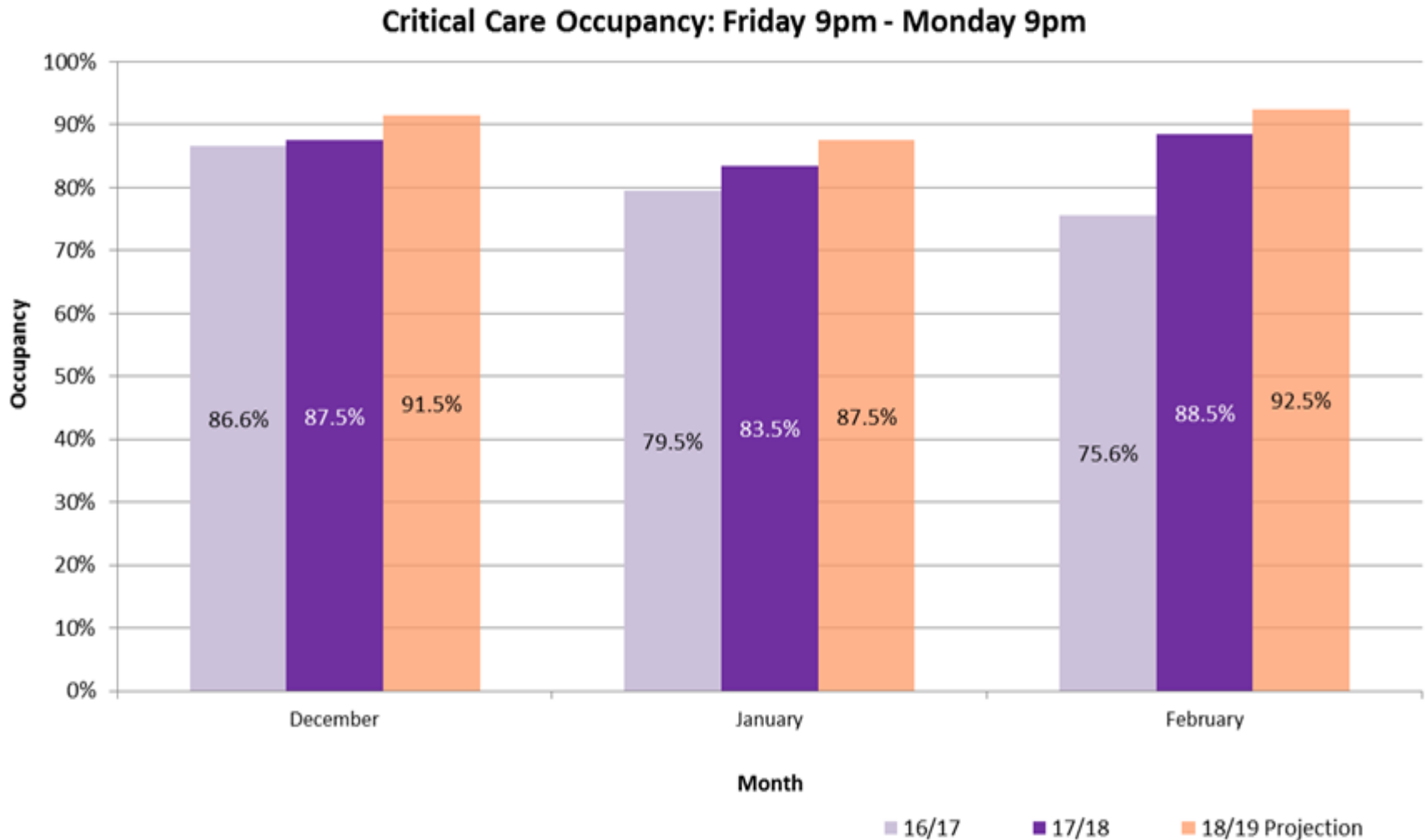
CCD Admissions



HDU admissions by year



OCCUPANCY DATA:



PREVENTION OF FUTURE DEATH- RULE 28, 2017

In essence, the proposed system would mean that, if a decision is made that a patient needs life-saving surgery, they should be transported immediately to their local unit. This may mean that a critical care bed would have to be found for that patient thereafter – even if that requires extensive ‘bed-juggling’ (as I termed it) by critical care doctors – or in extreme cases, treatment post-operatively being offered elsewhere. The proposal is that this should cover all types of life-saving surgery – not just neurosurgery.

It was proposed – and agreed by the 3 witnesses referred to above – that the decision as to whether proposed surgery is ‘life-saving’ or not should be a matter for the consultant surgeon – who would routinely be contacted for a new admission in any event. I believe that is right for the reasons suggested, but also because no protocol can ever cater for every situation – sometimes a senior decision needs to be made to deviate from a protocol, for common sense reasons and in the best interests of a patient.

SOME NUH CRITICAL CARE STATS 2017:

- 3960 ADMISSIONS TO CRITICAL CARE (AICU -1179,CCD-988,HDU-1793)
- 462 LEVEL 1 BED DAYS
- 32 PN PATIENTS
- 24 CANCELLED ELECTIVES

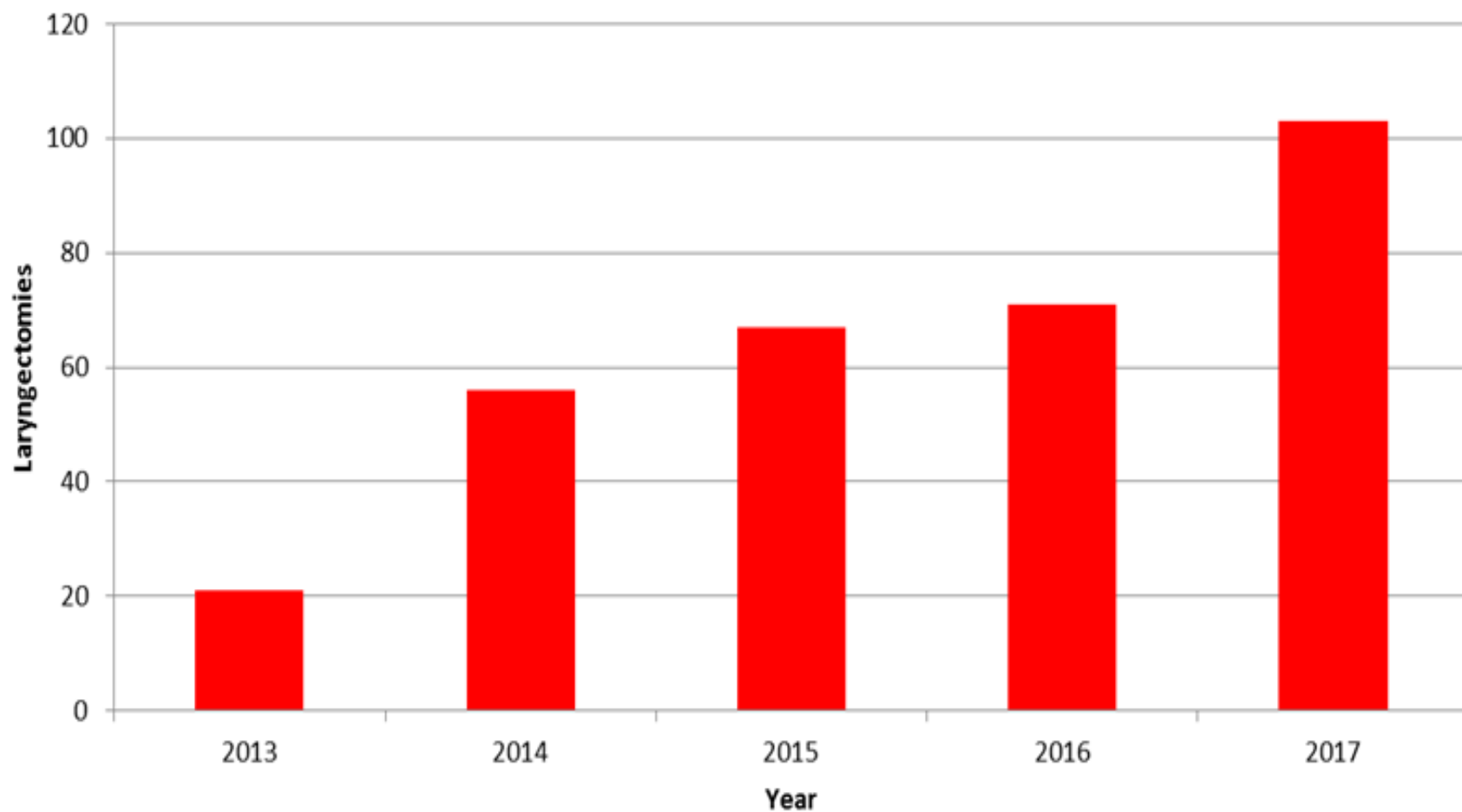
THANK YOU DR DAVID SPERRY

CCOT DATA FOR 10 MONTHS:

Outreach referral category 01.11.17-31.08.18			
	Outreach category	Number	% of total (n=5403)
1	Cardiac arrest/peri-arrest call	264	5
2	Clinical concern-no EWS trigger	641	12
3	Critical care follow up with tracheostomy	208	4
4	Critical care follow up	2090	39
5	EWS	1896	35
6	Hospital transfer	39	1
7	Laryngectomy or long term tracheostomy	110	2
8	Ward trawl	126	2
9	Not documented/duplicate	29	<1

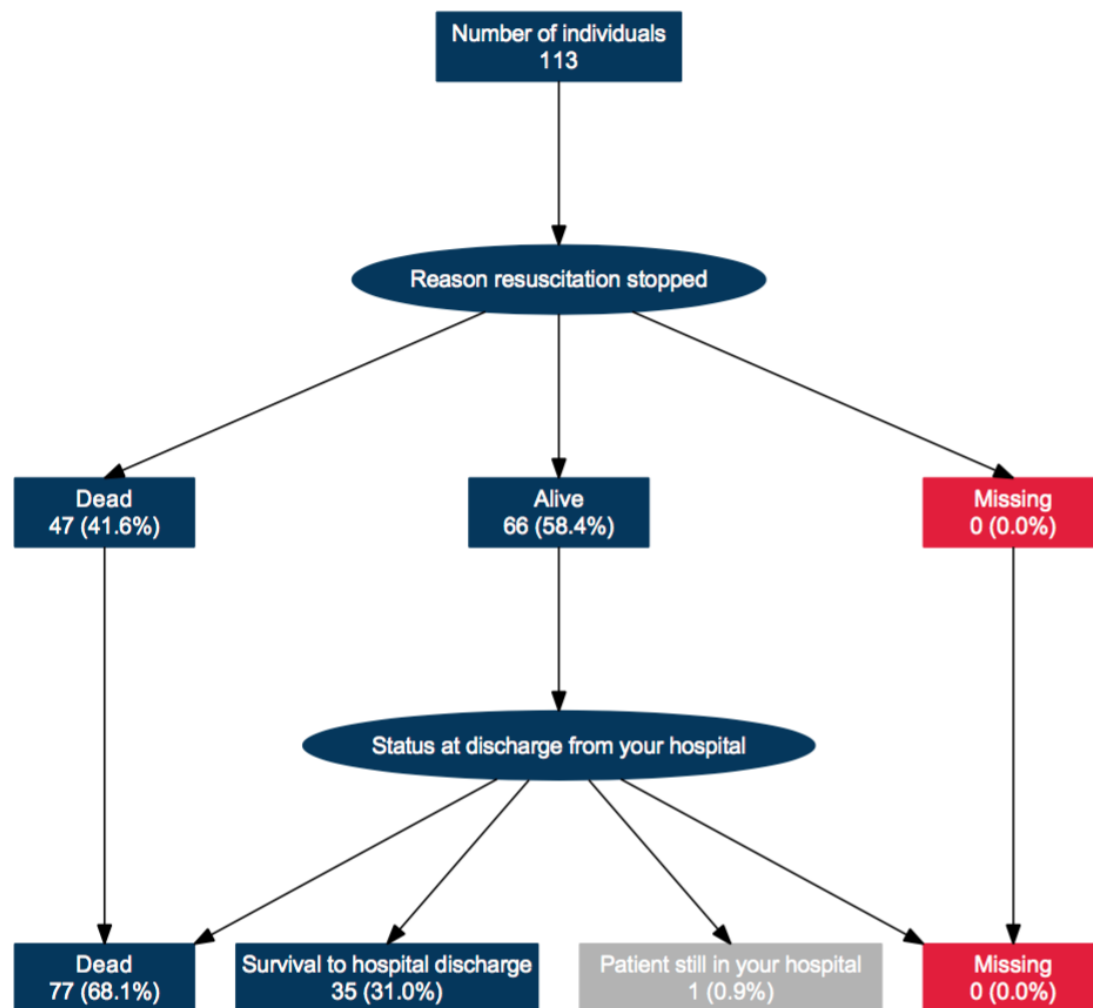
SOME NUH HOSPITALS STATS:

Number of Admissions of Adult Laryngectomy Patients



Outcome flow

Outcome flow



Note: All percentages shown in this flow are calculated from the overall number of individuals

QUALITY INDICATORS:

- MCQUILLAN P, ET AL, CONFIDENTIAL INQUIRY INTO QUALITY OF CARE BEFORE ADMISSION TO INTENSIVE CARE. BMJ 1998; 316:1853–1858. 67%
- NCEPOD 2005, AN ACUTE PROBLEM, 66% 12 HOURS
- NCEPOD 2012, TIME TO INTERVENE, 75%
- NPSA 2007 RECOGNISING AND RESPONDING, RECOMMENDATION AROUND FTR
- NICE CG50 2007, THE ACUTELY ILL ADULT IN HOSPITAL, TO REDUCE ICU ADMISSIONS

FAILURE TO RESCUE:

- › **Not taking observations;**
- › **Not recording observations;**
- › **Not recognising early signs of deterioration;**
- › **Not communicating observations (Luettel et al, 2007).**

Recognise and Rescue 2012

National Early Warning Score (NEWS2)

NEWS
2

~~WINTER
IS
COMING~~

100% of acute and ambulance settings by
March 2019. NHSE/NHSI

LEVELS OF CARE

Level 0	Patients whose needs can be met through normal ward care in an acute hospital
Level 1	Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the Critical Care team
Level 2	Patients requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care
Level 3	Patients requiring advanced respiratory support alone, or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure.

Adult Critical Care Prices 2017/18

HRG Description	HRG Code	DoH Benchmarking (2013-14 prices)	Burton Tariff (inc MFF)	Derby Tariff (inc MFF)	KMH Tariff (inc MFF)	NUH Tariff MFF)	(Inc	ULH Tariff (inc MFF)
Data invalid for grouping	UZ01Z	£0	£0	£0.00	£0.00	£0		£0.00
Adult Critical Care - 6 Organs Supported	XC01Z	£1,642	£0	£0.00	£1,869	£0		£0.00
Adult Critical Care - 5 Organs Supported	XC02Z	£1,581	£1,699	£1,752.34	£1,869	£1,601.91		£1,572.65
Adult Critical Care - 4 Organs Supported	XC03Z	£1,461	£1,494	£1,493.18	£1,735	£1,530		£1,453.29
Adult Critical Care - 3 Organs Supported	XC04Z	£1,307	£1,330	£1,329.07	£1,483	£1,376		£1,300.09
Adult Critical Care - 2 Organs Supported	XC05Z	£1,087	£1,105	£1,104.53	£1,262	£1,249		£1,081.26
Adult Critical Care - 1 Organs Supported	XC06Z	£793	£822	£821.60	£961	£886		£788.81
Adult Critical Care - 0 Organs Supported	XC07Z	£239	£248	£247.69	£736	£0		£237.74

DETAILED LEVEL 1 PATIENTS:

- PATIENTS RECENTLY DISCHARGED FROM A HIGHER LEVEL OF CARE
- PATIENTS REQUIRING A MINIMUM OF 4 HOURLY OBSERVATIONS.
- PATIENTS IN NEED OF ADDITIONAL MONITORING/CLINICAL INTERVENTIONS, CLINICAL INPUT OR ADVICE
- REQUIRING CONTINUOUS OXYGEN THERAPY
- BOLUSES OF INTRAVENOUS FLUID (NEED NOT DETERMINED BY CVP)
- EPIDURAL ANALGESIA OR PATIENT CONTROLLED ANALGESIA IN USE
- REQUIRING ADMINISTRATION OF BOLUS INTRAVENOUS DRUGS THROUGH A CENTRAL VENOUS CATHETER
- WITH A TRACHEOSTOMY
- PATIENT REQUIRING MINIMUM OF 4 HOURLY GCS ASSESSMENT
- WITH DIABETES RECEIVING A CONTINUOUS INFUSION OF INSULIN
- WHO ARE AT RISK OF ASPIRATION PNEUMONIA
- ON ESTABLISHED INTERMITTENT RENAL SUPPORT
- REQUIRING RESPIRATORY PHYSIOTHERAPY TO TREAT OR PREVENT RESPIRATORY FAILURE
- REQUIRING FREQUENT (> 2X DAY) PEAK EXPIRATORY FLOW RATE MEASUREMENT FOR CLINICAL REASONS
- PATIENTS REQUIRING CRITICAL CARE OUTREACH SERVICE SUPPORT (CCOT)
- ABNORMAL VITAL SIGNS BUT NOT REQUIRING A HIGHER LEVEL OF CRITICAL CARE
- RISK OF CLINICAL DETERIORATION AND POTENTIAL NEED TO STEP UP TO LEVEL 2 CARE
- PATIENTS FULFIL THE "MEDIUM" RISK CATEGORY AS DEFINED BY NICE GUIDELINE NO: 50
- (INTENSIVE CARE SOCIETY STANDARDS, 2009 P.7)



**CAN'T SOMEONE ELSE
JUST DO IT?**

more awesome pictures at THEMETAPICTURE.COM

SO WHO SHOULD LOOK AFTER THE LEVEL 1
PATIENTS?

MEDICAL LEVEL 1

- D55 - 7 AND 8 BEDS
- ARCU -12 BEDS



“

The art of medicine
consists of amusing
the patient while nature
cures the disease.

— Voltaire

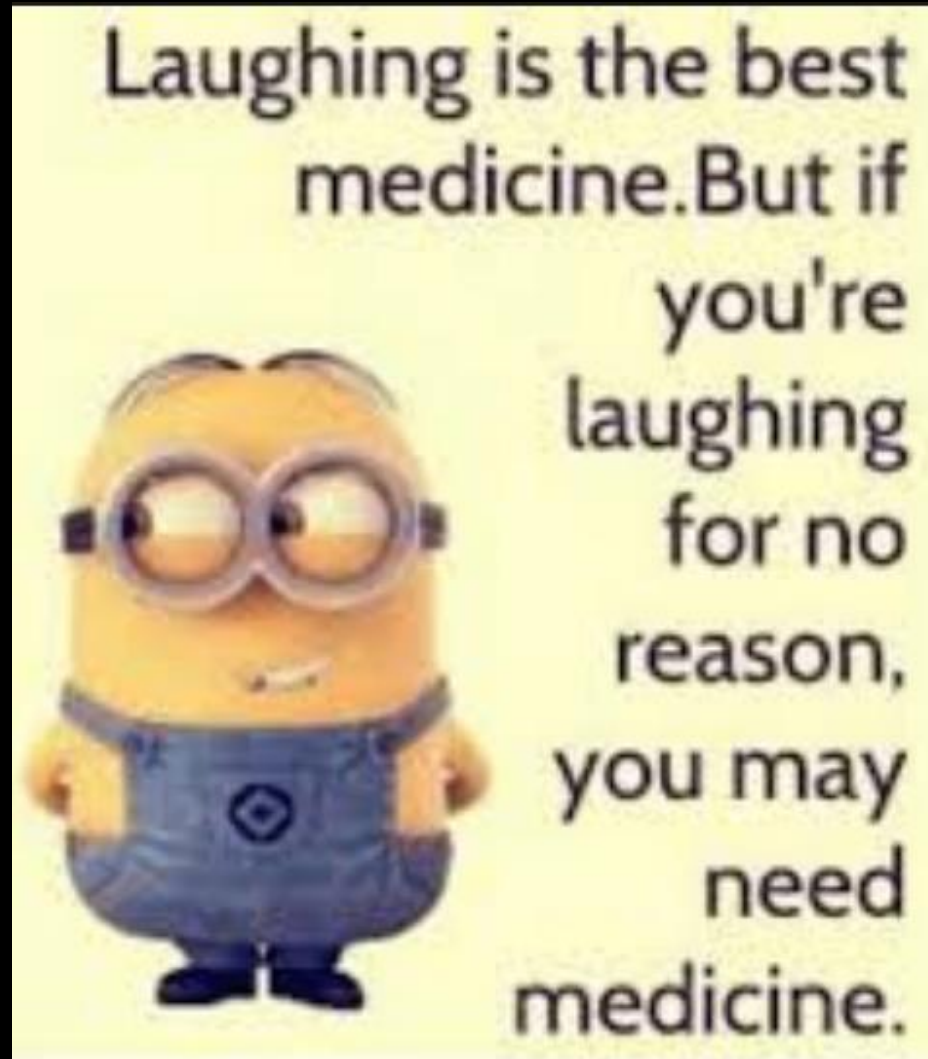
TRAUMA LEVEL 1

C30, 16 +2 SIDEROOMS



THORASICS:

BTU – 2 BEDS



NSPU

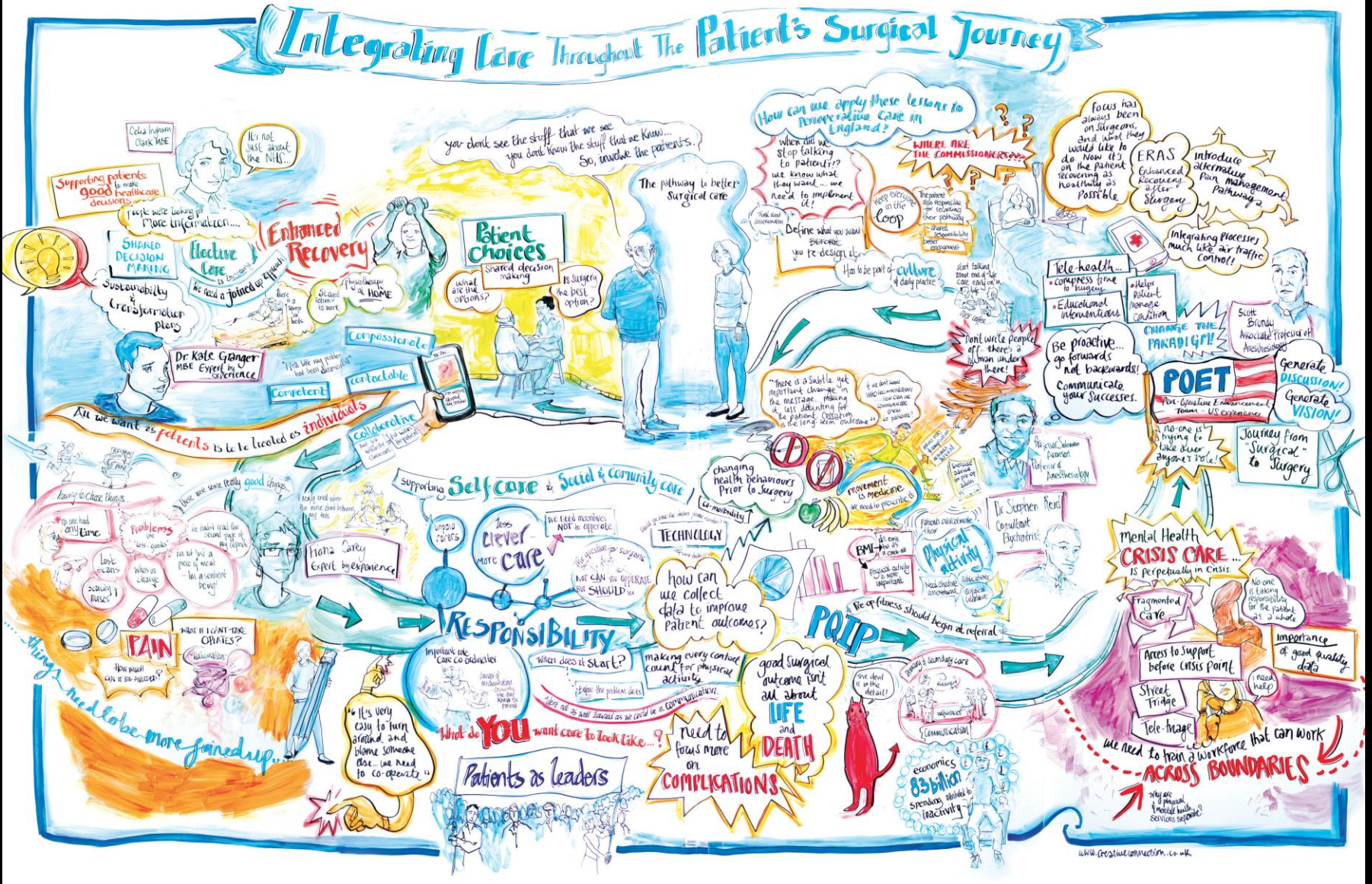
D9: 12 TO 8

Laughter is the best medicine...
except for
treating diarrhea..



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POST OPERATIVE CARE AS PER KING'S FUND:



GPAS POST OP CARE 2018

- EXCELLENT NURSING CARE WITH PROMPT ACCESS TO MEDICAL SUPPORT WILL ENSURE THAT MANY KEY ASPECTS OF CARE ARE PROACTIVELY MANAGED TO ENSURE GOOD PATIENT OUTCOMES. **NURSE-LED, PROTOCOL-DRIVEN CARE** OF FREQUENTLY OCCURRING PROBLEMS FOR HIGH-RISK SURGICAL PATIENTS (SUCH AS **PAIN, FLUID IMBALANCE, NUTRITION AND MILD CARDIORESPIRATORY COMPROMISE**) CAN OFTEN BE PROVIDED IN A LEVEL 2 CRITICAL CARE UNIT OR SPECIFICALLY DEVELOPED POST-ANAESTHETIC CARE UNIT (PACU). THIS CAN PROVIDE SOME BUT NOT ALL THE ORGAN SUPPORT TREATMENTS AVAILABLE IN A LEVEL 3 CRITICAL CARE UNIT, EG INVASIVE VENTILATION, LOW DOSE INOTROPE SUPPORT.

GPICS

- THERE SHOULD BE ACCESSIBLE EDUCATIONAL SUPPORT FOR REGISTERED AND NON-REGISTERED WARD STAFF IN CARING FOR THE ACUTELY ILL WARD PATIENT IN LINE WITH RECORDER AND FIRST RESPONDER LEVEL AS OUTLINED IN DH COMPETENCIES⁽⁴⁾ FOR THE RECOGNITION AND RESPONSE TO THE ACUTELY ILL PATIENTS IN HOSPITAL⁽⁴⁾. STAFF LOOKING AFTER LEVEL 1 AND ENHANCED CARE AREAS PATIENTS SHOULD BE TRAINED FOLLOWING THE NATIONAL COMPETENCY FRAMEWORK FOR LEVEL 1 AND ENHANCED CARE AREAS⁽⁵⁾.

Spending on and availability of health care resources: how does the UK compare to other countries?

[NHS finances](#)[Key messages](#)[Workforce](#)[Bed capacity](#)[Medical technology](#)[Medicines](#)[Funding](#)[Discussion](#)

Doctors

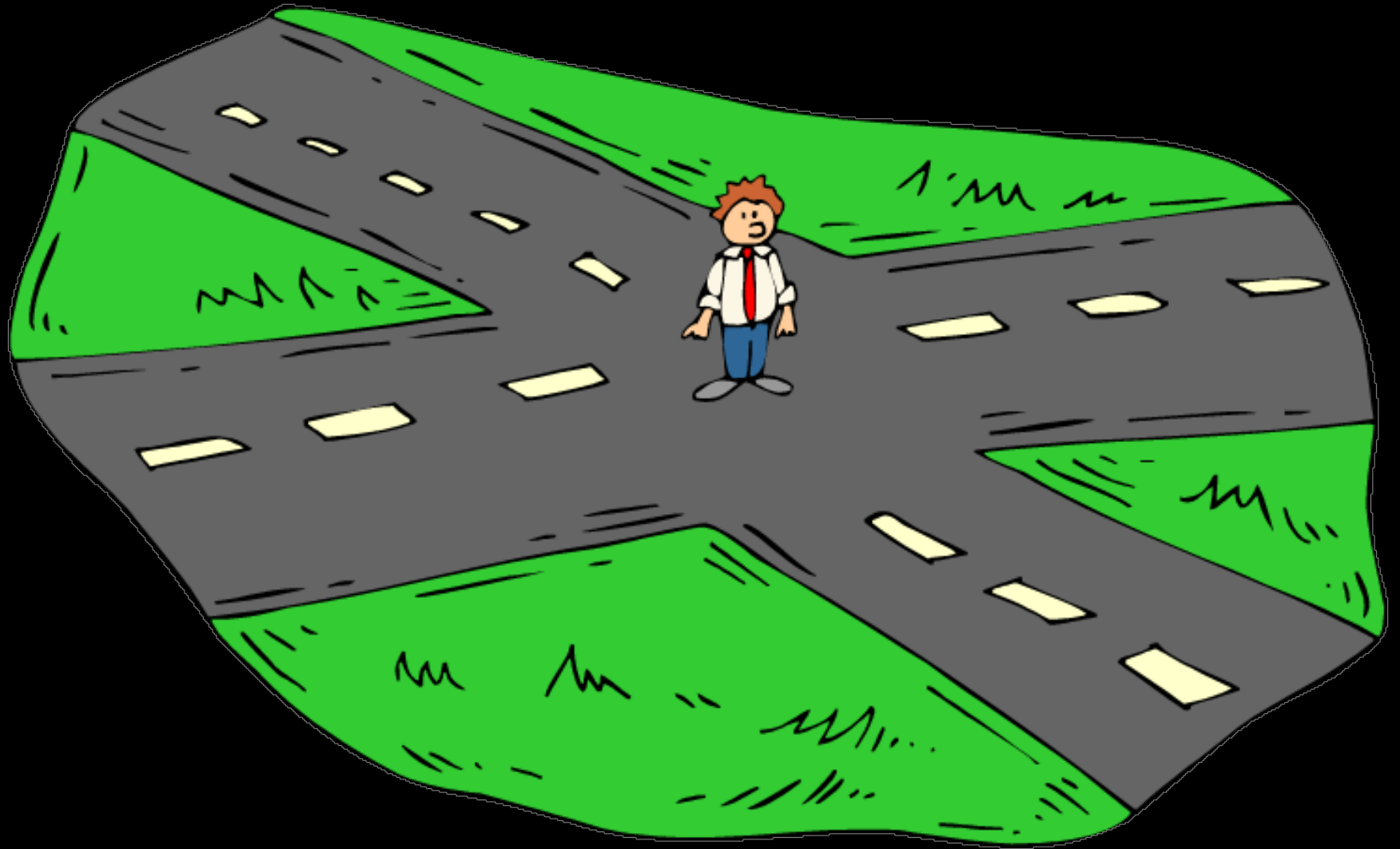
The UK has 2.8 doctors per 1,000 population, which is below the average of 3.6 for our basket of countries (Figure 1).

Nurses

The UK also has fewer nurses per 1,000 population (7.9) than average (Figure 2), positioning the UK next to the Czech Republic and Austria and far behind Germany (13.3 nurses per 1,000 population) or Switzerland (18 nurses per 1,000 population).

- Our analysis of health care spending in 21 countries shows that the UK has fewer doctors and nurses per head of population than almost all the other countries we looked at. Only Poland has fewer of both.
- The UK has fewer magnetic resonance imaging (MRI) and computed tomography (CT) scanners in relation to its population than any of the countries we analysed. Although this data should be treated with particular caution, it is clear that the UK lags a long way behind other high-performing health systems in investing in these important technologies.
- Of the countries we looked at, only Denmark and Sweden have fewer hospital beds per head of population than the UK, while the UK also has fewer beds in residential care settings than comparator countries. While lower numbers of hospital beds can be a sign of efficiency, the growing shortage of beds in UK hospitals indicates that bed reductions in the NHS may have gone too far.
- Although costs are rising, the UK spends less on medicines than most of the countries we analysed. A key reason for this is the success of initiatives to improve the value of expenditure on medicines, such as encouraging the use of generic drugs.

- Under the Organisation for Economic Co-operation and Development (OECD)'s new definition of health spending, the UK spends 9.7 per cent of gross domestic product (GDP) on health care. This is in line with the average among the countries we looked at but is significantly less than countries such as Germany, France and Sweden, which spend at least 11 per cent of their GDP on health care.
- The picture that emerges from this analysis is that the NHS is under-resourced compared to other countries and lags a long way behind other high-performing health systems in many key areas of health care resources.



HOSPITAL LEVELS OF CARE:

0

1

2

3

HOSPITALS LEVELS OF CARE:

0 1 2 3

Insanity:

doing the same thing
over and over again
and expecting
different results.

- Albert Einstein

