



We make digital tools
for NHS clinicians

“Oh. Yeah. In *this* room, the left button of the mouse does right click, and the right button does left click.

It's always been that way.
Nobody knows why.”

–NHS Doctor, 2016

“I spend one hour a day copying test results from one computer system to another, and think - why do you need a human for that?”

–NHS Doctor, 2016

“That's NHS learned helplessness for you.

People are so resigned they
don't bother to raise legitimate complaints”

–NHS Doctor, 2016

It's not complicated.
It's just hard.

Andrea Allen

Admin

Patient Details

Teams

ID Inpatients

Discharge

Filters

Hospital #

Name

Demographics	Location	Diagnosis / Issues	PMH	Travel	Antimicrobials	Investig
186168484 Andrea Allen 12/12/1999 (15)	Inpatient Acute Coronary Wing				27/10- Meropenem	26/10 Lei Serology
73128 Frank Francis 02/05/1980 (35)	Inpatient UCLH	09/10 ? Still's Disease		Akrotiri and Dhekelia Holiday	05/10-22/10 Ambisome 12mg Four times a day	25/10 Blo Culture: SENS: Fo RES: Pos.
7837897543289 Barry Bannerman 14/10/1988 (27)	Inpatient UCLH			Akrotiri and Dhekelia		26/10 Fas (NEG)

Clinical Advice (Beth Berry)



Date

21/10/2015

Advice given by

C Kent

Type of advice

Phone consultation



Clinical discussion

Called Beth to let her know that her results were back, |

 Save

Close

1. **Who** are you referring to HTD Walk In Clinic?

Patient Details

Hospital number

 Search

If we already have your patient on the system, we can pull their details for you

Demographics

Name	Bobby Tables
Hospital #	907323
DOB	12/11/1991
Gender	Male
Born	United States
Ethnicity	

Location

Category	Inpatient
Admitted	01/11
Hospital	UCLH
Ward	
Bed	

Allergies

No known allergies

PMH

CKD

Presenting Complaint

Back Pain, Cough (4-10 days)

Diagnosis / Issues

12/11 Bladder Cancer

12/11 Acute on chronic SDH

Antimicrobials

02/12-07/12 Piperacillin Tazobactam

19/11-01/12 Caspofungin

Investigations

12/11 Babesia Film
Parasitaemia: 6%

To Do

Digital tools should understand
the clinical **context** and make
it **easy** to do the right thing

Moving data around in the
NHS should be safe,
accountable and **frictionless**

The tools we use should
automatically generate
useful data

“eICD is the fastest, slickest, easiest to use software at the hospital by far”

“It makes me resent the times when I’ve had previous jobs and we’ve had to do this and it’s been a nightmare.”

–NHS Doctors, 2016

The future **matters**
and is **hard** to predict

Open Source allows
you to **own your future**

High switching costs
create **inertia**

Without **flexible** tools and processes the NHS will not be able to **adapt** quickly enough

Test, learn, adapt
works

Health is **not special**

The Open Source Pyramid

(JP Rangaswami)

- For **common** problems: **Open Source**
- For **rare** problems: **Buy**
- For **unique** problems: **Build***

* Build on top of Open Source

Free as in **puppy**:

Only marginally better than closed

Code in the open
≠
Open Source

Code in the Open Checklist

☒ Can download source **code**

☒ Open **licence**

Open Source Checklist

- ☒ Can download source **code**
- ☒ Open **licence**
- ☒ Public **issue** tracker
- ☒ Public **roadmap**
- ☒ Accepts **contributions**
- ☒ Documentation good enough to **re-use** and **adapt**

For problems **unique** to us we
code in the open

For **common** problems we
build Open Source **tools**

OPAL Is A Full Stack Web Framework For Building Health Care Applications.

OPAL encourages rapid development, and elegant, pragmatic design. Focussed on health care, it builds on years of research and design to help you in building your app. It's free and open source.

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(<http://opal.openhealthcare.org.uk>)

Making things open
makes things **better**
when you have **friends**



NHS HACKDAY

GEEKS WHO LOVE THE NHS



DAC	NAME	AGE	NHS NUMBER									MORE
	Jane Fonda	19	4222344433									

Anaesthetic Technique

Thiopentone 500mg Fentanyl
100mcg Atracurium 40mg
Ondansetron 4mg
Sevoflurane to approx 1 isoMAC
for age FiO2 0.45 FiN2O 0.55
Continuous nerve stimulation
monitoring

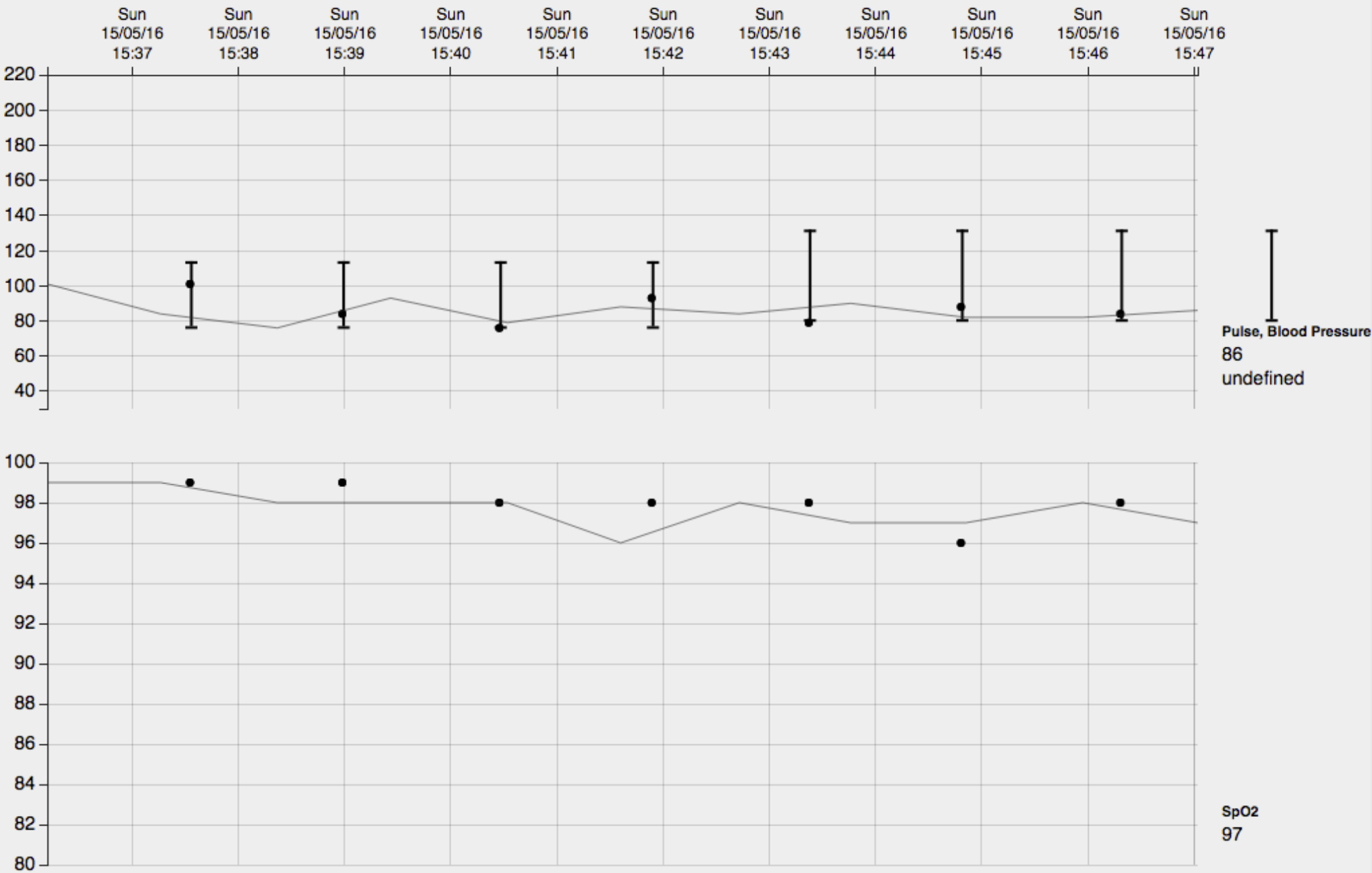
GivenDrug

Drug name co-amoxiclav
Drug type antibiotics
Dose 1.2g

Drug name fentanyl
Drug type analgesics
Dose 50mcg

Drug name fentanyl
Drug type analgesics
Dose 50mcg

Drug name thiopentone
Drug type induction_agents
started 01/01/1970 0:20



NAME: James Jones

AGE:

Name: James Jones

Gender:

Village:

SYMPTOMS

Abdominal Pain, Abnormal Investigation

TREATMENT

09/05- Caspofungin

OBSERVATIONS

Observations

Date	BP	Pulse	RR	SpO2	Temp
15/05 13:28	78/897	987	97		987
15/05 13:27	21/897	987	897		879



We make things open
You can **help us**
make them better

github.com/openhealthcare



openhealthcare.org.uk
github.com/openhealthcare