


# SACT

Systemic Anti-Cancer Therapy

## Chemotherapy Dataset



Chemotherapy Intelligence Unit

**From the conference brochure:**

The SACT chemotherapy data collection system has been running for just over a year and now has data on 100,000 thousand patients and 1,000,000 individual drug records. We have already produced reports which are having a real and positive affect on patient's treatment as well as analysing other data such as cancer patients body surface area (which is used to determine drug dosage and is different from that of healthy people).

The system is considered to be a great success and is being used as a model for other similar programmes.

The reasons for this success aren't just because hospital data submission is mandatory; in this workshop we hope to share some of our 'learning outcomes' from the project including :-

The workshop abstract / invitation in the brochure says :-


we hope to share some of our 'learning outcomes' from the project including :-

- ensuring the data collected is relevant to a patient's treatment and outcomes
- use of the latest computer technology to give instant feedback of results

leading to better data quality

- close collaboration with the people who submit the data so that it doesn't impede on their day jobs
- producing relevant, clinician led analysis which engages the hospital teams and encourages them to make the system better

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**Quick Introduction**

- What is SACT ?
- How does it work ?


**What have we learnt about helping our users ?**

- Technical
- Helpdesk
- Analytical

**Implications/ Future**

- Live data – patients are (still) alive, our duty of care
- Use in other areas – diabetes, strokes

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## What is it?

Computer system which collects patient, regimen and drug level information about chemotherapy treatments direct from hospitals electronic prescribing systems.

Individual treatment data is merged across the whole country to form an up-to-date picture of each patients chemotherapy.

42 data items – each directly related to patient care.

System went live in April 2012. In first year we have:

127 out of 152 hospitals now submitting data monthly

Already have data on 100,000 patients,  
450 different cancer diagnosis (C-codes),  
across 1 million individual drug records

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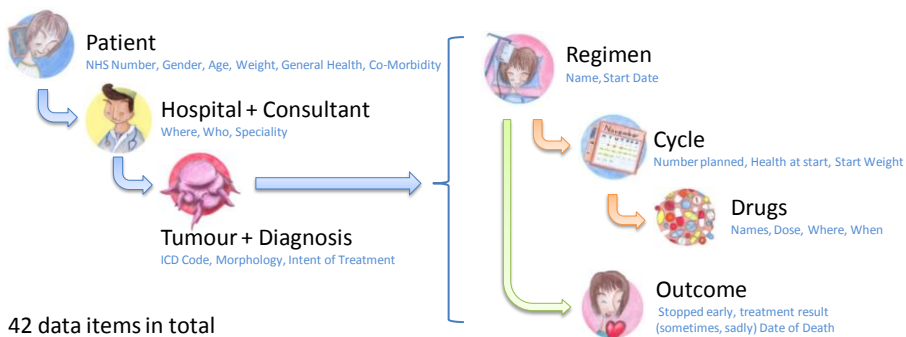
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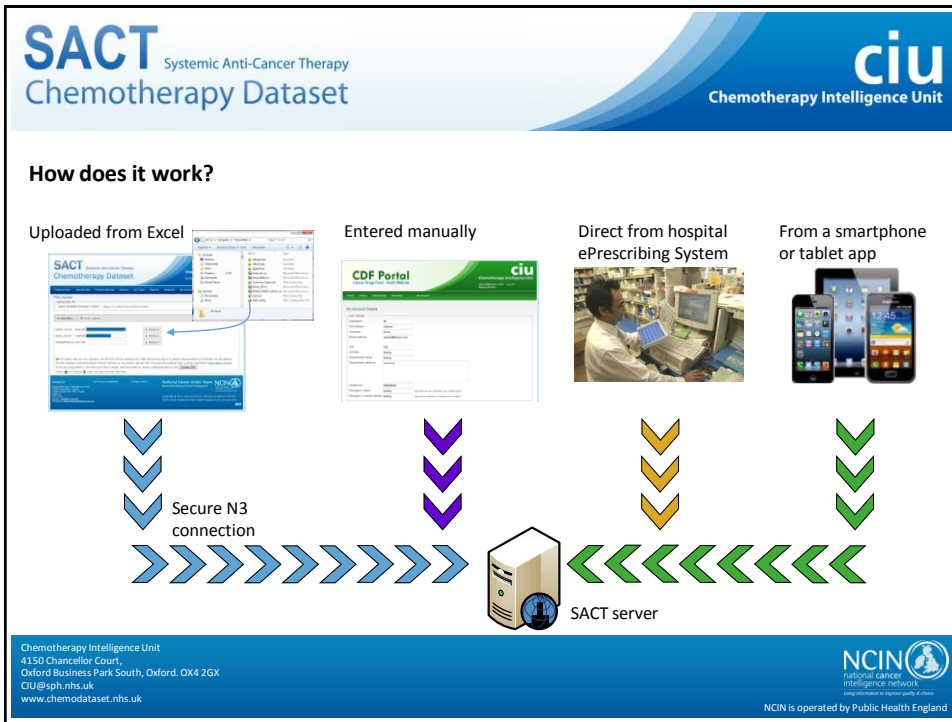
## What data do we collect?

Every item of data in the dataset has been rigorously vetted by the NCIN clinical panel and the NHS Information Standards Board to make sure it is relevant to the patient's care.



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**Loading data – instant feedback**

- As soon as a file is uploaded its data is checked (15 seconds)
- Keeps the user interested
- They haven't forgotten what they just did
- Helpdesk works with them (online and telephone) to fix problems quickly

**Uploaded File Details**

D0000-04075 DEMO-20130401-20130428.csv [csv] Ready to submit 12/04/2013 08:05:30

This file contains the details of 9 patients with Cycles started between 09/09/2010 and 20/01/2012 in 32 individual records, of which :-

0	are fully valid	0.0 %
31	are partially valid	96.8 %
1	contain errors (and will not be uploaded)	3.1 %

File uploaded by: Mr Upload Upload [Aintree University Hospitals NHS Foundation Trust] eMail: user@demo.com

This file contains errors in some patient records. If you submit the file those patient details will not be uploaded.

Submit [Submit icon] Reject [Reject icon] [Download this summary to Excel](#)

**Rows in file containing faults** [Download these result to Excel](#)

Row	Move the mouse over a field to see the failure reason
1	Warn
2	Warn
3	Warn
4	Warn
8	Warn
9	Error
10	Warn

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**Clinical Approval - sense of ownership**

Immediately after upload, the hospital clinicians are invited to check and approve their own data.

Makes sure the numbers we receive are correct and involves hospital staff in the system.

Not just a data collection exercise – relevant to their own patients

**Provider Approval**

Review uploaded data

Summary for: -- all my hospitals and trusts --

**A set of 84 files are waiting for approval.**

Summary of merged data which has been submitted between 01/04/2013 and 30/04/2013

Data for: **Apr 2013** | Apr 2013 | Mar 2013 | Feb 2013 | Jan 2013 | Dec 2012 | Nov 2012 | Oct 2012 | Sep 2012 | Aug 2012 | Jul 2012 | Jun 2012

Activity Summary		Apr 2013	Mar 2013	Feb 2013
Patients receiving drug treatments		23338	22211	21154
New regimen starts		18478	13888	13717
New cycle starts		35214	37808	35386

Diagnosis	Regimens			Cycles		
	Apr 2013	Mar 2013	Feb 2013	Apr 2013	Mar 2013	Feb 2013
Ovarian	792	828	872	2337	2447	2310
Head and Neck	174	204	209	463	482	458
Leukaemia	443	548	552	1016	1069	1018
Lower GI	1384	1340	1323	5626	6233	5841
Lung	1231	1456	1477	3249	3350	3035
Lymphoma	840	1120	1150	2620	2934	2789
Myeloma	361	528	523	1263	1428	1405

[Download these results to Excel](#)

If this represent an accurate picture of the work in your hospital you can approve the files for acceptance by the CIU team. Otherwise you can examine the individual files so that the data can be corrected.

Approval notes or comments:

No SACT/CIU data was provided this month because of an IT problem - we will upload the data next month instead.

Approve  View Files

**Guiding people through the process: Info Snapshots**

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**Info Snapshot - Approving your Data**

**Why Approve your data?**

The purpose of the approval is to ensure that the number of patients treated, the number of cycles and the number of regimen starts by diagnostic group that has been submitted by your Trust/hospital for a particular month. This will help to ensure that the numbers are representative of the actual activity.

The CIU guidance requires that the approval of chemotherapy clinical activity is done by the Chemotherapy Intelligence Unit (CIU) clinic. You should produce a checklist on your SACT data that could be inaccurate, without first checking that you are confident that the activity reported is correct.

**Who should Approve your data?**

Trusts/organisations should identify the individual(s) who can provide such a check.

In the majority of trusts/hospitals the approver role is held by the following:

- Lead Cancer clinician
- Lead Pharmacy
- Senior cancer services team member

The individual(s) responsible for the "senior check" should register on the SACT portal at <http://www.chemodataset.nhs.uk/> and check the "Provider" box when registering on the portal.

**Top 3 Questions Answered**

Question 1: Can I be an up-taker if I approve?  
Answer 1: The majority of the time the person approving data should be different from the person submitting data.

Question 2: Does my approval go to the hospital summary or approval system?  
Answer 2: Please send your data from the top sheet (1-2) digit code and use an up-taker file.

Question 3: Why are we Spaces for my Trust/Region?  
Answer 3: We are in Spaces when they indicate missing data in the up-taker file.

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**Provider Approval**

- Click on Provider approval on the left
- Ensure correct organisation is selected
- Select required data range
- Add notes/comments
- Click Approve to complete process

**Note:** These are diagnoses that CIU do not put into ascending categories for analysis.

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## Encouraging trusts to help each other

The helpdesk takes the time to listen and understand the issues facing trusts with the collection and the extraction of their SACT dataset.

We put trusts in contact with each other to share their knowledge and skill sets, we have helped many trust increase submission counts this way.




## The results speak for themselves

~~Post-assessment submission~~

This file contains the details of 342 patients with Cycles started between **02/04/2012** and **31/10/2012** in

7839 individual records, of which :-	7839
7839 are valid	100.0 %


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## Continuous and Rapid Improvement

We continuously examine the uploaded data to spot problems.


We noticed date sequence problems so we used our 'agile development process' to implement a data checker fix for future uploads.

Contacted the affected hospitals to get data fixed.

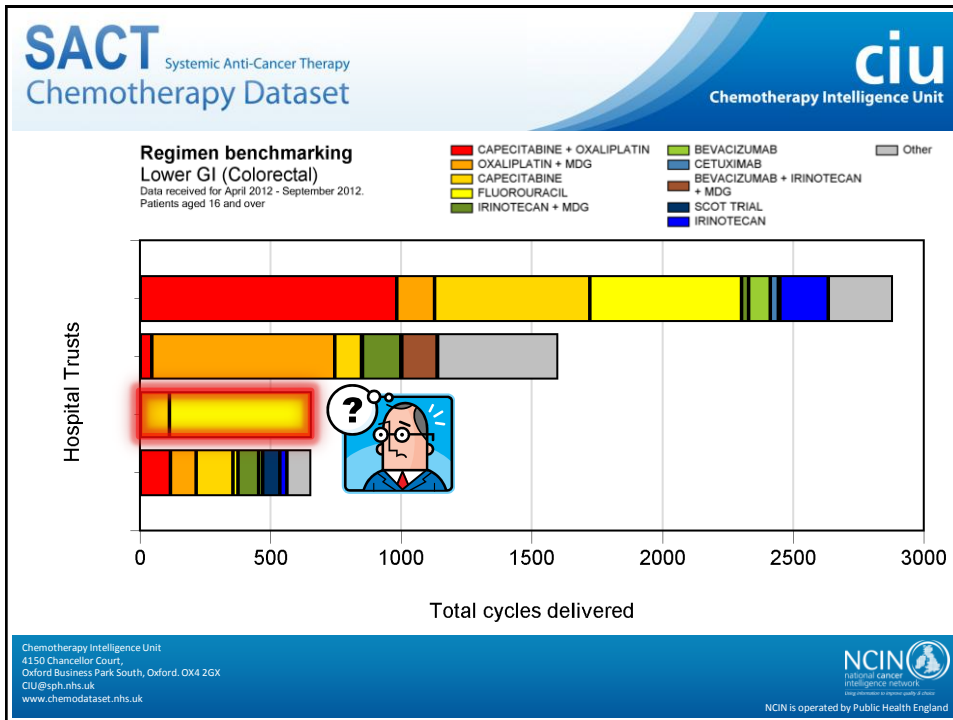
  

Patient	Date of Birth	Regimen Name	Start Date of Regimen	Start Date of Cycle	Drug Administration Date
1	01/04/1984	FEC	15/04/2012	15/04/2012	01/04/2012
2	31/09/2012	PACLITAXEL	04/09/2012	04/09/2012	04/09/2012

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**Future:**

Timeliness changes the way we deal with the data and it can have a real clinical impact. This is real data for real people who are still alive **today** – its not just numbers any more!

But can't just release the raw data; have learnt it needs expert clinical checks otherwise it is easy to jump to wrong conclusions – 'polish & prevaricate' vs 'publish and improve'.

Mike has done body surface area analysis - might mean we can give more targeted doses

**What do we do if we spot something bad?**

Concerns about whether some treatments are beneficial to all patient categories; we may well be able to answer those concerns.

**How do we resource all this 'what if' analysis?**

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## Other uses:

System is generic, core code doesn't know about chemotherapy or cancer

Already used for Cancer Drugs Fund



Fast system, with up-to-date data:  
Could use for screening –

Who was seen today?  
Link positive test result to hospital appointment  
Follow up those who missed their appointment

Under PHE there are new opportunities – new Intelligence Networks  
Diabetes has many long term associated conditions (eyesight, foot care)  
SACT can link separate systems together  
Collect together hospital, clinic and GP records to spot patterns

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