



Public Health
England

Protecting and improving the nation's health

Systemic Anti-Cancer Therapy (SACT) Data Set

Technical Guidance

Version 3.0

About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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Version control

Version	Date	Amendment History
3.0 Draft	23-08-2018	Draft version for internal review and comment
3.1 Draft	01-10-2018	Draft version for DSAS assessment
3.0 Final	28-10-2018	Final version for publication
3.0 Final	06-12-2018	Final version published

Introduction

This document provides technical guidance to support providers of cancer services, e-Prescribing Managers and IT software developers in the submission of the Systemic Anti-Cancer Therapy (SACT) data set. It should be read in conjunction with:

- information standards notice: reference DCB1533 Amd 80/2018
- SACT specification v3.0
- SACT change request v3.0
- SACT user guide v3.0
- SACT data set v3.0

Users may also wish to read SACT v3.0 implementation guide which provides further support on implementation of the changes to the standard.

See the SACT website¹ and the NHS Digital website² for access to these documents and other information.

This is a change to the SACT data set standard which builds on the work that has continued over the past 4 years, since the last update. These new changes were required in order to make the data set clinically accurate and also meet the business objectives of the data set.

This process allowed the data set to be clinically reviewed, validated and updated by experts in all fields of cancer and provide a clinically sound set of data to be collected from 2019, and for the lifetime of this version of the data set.

Providers of SACT services are required to provide a monthly return on all cancer patients using this data set. Submissions are made by each provider to the English National Cancer Online Registration Environment (encore) application programming interface (API)³ portal.

¹ www.chemodataset.nhs.uk/guides_and_support/

² <http://digital.nhs.uk/isce/publication/dcb1533>

³ https://nww.api.encore.nhs.uk/users/sign_in

Change of Scope

XML will no longer be a requirement of this standard, and this has been reflected in a change to the scope of the standard. This decision was taken after review and due to the financial burden this would have cost trusts and SACT in changing reporting structures, training of staff and the reporting of data files in this format.

Purpose and Audience

The purpose of this document is to provide instruction to informatics personnel within provider organisations and IT software suppliers regarding file creation and submission of SACT data. It should be read in conjunction with the documents listed above. This document describes the standards for file submission, including the CSV construction and file naming to facilitate uploading to the SACT portal.

Help and Support

For technical queries relating to the creation of these files please contact the SACT help desk in the first instance:

- for general queries regarding the data set contact sact@phe.gov.uk
- for queries regarding the Data Dictionary contact datastandards@nhs.net

General Submission Principles

Providers must only submit data relating to patients for whom they have provided SACT treatments as follows:

- submitted files must be sent by secure file transfer methods as agreed with SACT
- files should be uploaded as early as possible within the reporting month of the ‘trigger event’ for each cancer treatment, to allow plenty of time to fix any errors and map regimens – uploading on the last day will mean that the trust may not have time to fix errors and therefore could be uncompliant for various measures
- the data set is divided into sections, each of which represents an activity or related group of activities along the treatment pathway
- individual records must contain the section ‘demographic and consultant’ including both ‘NHS Number’ and ‘Local Patient Identifier’ (where available)
- ‘Local Patient Identifier’, ‘Person Family Name’ and ‘Person Given Name’ have been added to the data set to allow for patient data to be recorded and submitted for patients who do not have an ‘NHS Number’
- providers should aim to complete all the relevant data items as soon as possible
- records in each submission should include all applicable sections where possible

Note: All data MUST be submitted to SACT in CSV format only

Data Extraction in CSV Format

Data files are required to be submitted monthly, using the 2-month schedule, for example: submissions of September 2019 activity data (1 September 2019 to 30 September 2019) to be uploaded to SACT as follows:

- 1 to 30 November 2019
 - files containing September data **MUST** be uploaded to the portal and all errors on the file **MUST** be resolved
- by 15 December 2019
 - regimen mapping **MUST** be completed
 - this process can start at any point once the file has been uploaded
- by 31 December 2019
 - all regimen queries **MUST** be resolved and the file **MUST** be submitted

Note: This upload schedule will continue to apply to all future months

Data will be extracted from electronic prescribing and other electronic systems, by system software suppliers working with local IT staff in constructing extraction routines.

The database import process requires files to be in a consistent format as outlined below:

- extracted data files **MUST** be in a single Comma Separated Values (CSV) file only, with a .csv file extension
- a CSV file template will be available from the SACT team for data suppliers and software system developers
- CSV files **MUST** be of the windows type rather than UNIX, with carriage returns at the end of each line as well as linefeeds
- none of the data required is case sensitive, excluding row headers
- CSV files **MUST** be saved with a text delimiter set to the double-quote character in order to allow the use of commas in data values
- all dates **MUST** be in a consistent date format in all the SACT data files submitted for example cyy-mm-dd
- each file **MUST** have a consistent (standard) header row within all the files submitted by the Trust (see section 7 below)

Note: It will not be possible to upload a file with any errors, all errors MUST be corrected before the file can be submitted

SACT Column Header Convention in CSV Format

The first row of the CSV file should consist of the Column Headers with the column names in exactly the format shown below (that is including underscore characters). CSV files should not be compressed or packaged in any way.

CSV files should contain only, and all of, the following column headers in the following order, regardless of the data items that can be supplied. The mapping to data set items is shown by the Column Number.

Column Header	Column Number	Data Set Item Number
NHS_Number	1	1
Local_Patient_Identifier	2	44
NHS_Number_Status_Indicator_Code	3	43
Person_Family_Name	4	45
Person_Given_Name	5	46
Date_Of_Birth	6	2
Person_Stated_Gender_Code	7	47
Patient_Postcode	8	5
Consultant_GMC_Code	9	7
Consultant_Specialty_Code	10	8
Organisation_Identifier_(Code_Of_Provider)	11	9
Primary_Diagnosis	12	10
Morphology_ICD-O	13	11
Diagnosis_Code_(SNOMED_CT)	14	48
Adjunctive_Therapy	15	49
Intent_Of_Treatment	16	15
Regimen	17	16
Height_At_Start_Of_Regimen	18	17
Weight_At_Start_Of_Regimen	19	18
Performance_Status_At_Start_Of_Regimen_-_Adult	20	50
Comorbidity_Adjustment	21	20
Date_Decision_To_Treat	22	21
Start_Date_Of_Regimen	23	22
Clinical_Trial	24	23
Cycle_Number	25	26
Start_Date_Of_Cycle	26	27
Weight_At_Start_Of_Cycle	27	28

Performance Status At Start Of Cycle - Adult	28	51
Drug Name	29	31
DM+D	30	52
Actual Dose Per Administration	31	32
Administration Measurement Per Actual Dose	32	53
Other - Administration Measurement Per Actual Dose	33	54
Unit Of Measurement (SNOMED CT DM+D)	34	55
SACT Administration Route	35	33
Route Of Administration (SNOMED CT DM+D)	36	56
Administration Date	37	34
Organisation Identifier Of SACT Administration	38	35
Regimen Modification - Dose Reduction	39	38
Regimen Outcome Summary -	40	57
Regimen Outcome Summary -	41	58
Other - Regimen Outcome Summary -	42	59
Regimen Outcome Summary Non Curative	43	60
Regimen Outcome Summary Toxicity	44	61

File Submission Via the EnCORE API

When a CSV file is ready for submission to SACT, staff at the reporting organisation can connect using the National Cancer Registration and Analysis Service (NCRAS) secure file upload system which sit behind the English National Cancer Online Registration Environment (EnCORE) application programming interface (API) web portal.

This can be accessed via a whole host of browsers, including Internet Explorer, Firefox, Safari and Chrome, as well as on a Mac, PC, iPhone, iPad, tablets and even mobile phones. However access from a N3 network⁴ is required. The URL for the web portal is https://nww.api.encore.nhs.uk/users/sign_in. The portal requires each registered user to agree to the site's terms and conditions. User logins are held within the repository database along with encrypted passwords for authentication.

Once users have logged in to the portal there are several steps required to complete each upload as follows:

Step 1

Upload the .csv file to the portal:

- click 'New Upload' on the top menu bar
- you are then presented with a new screen where you are required to update 5 upload questions:
 - *provider* - enter your trust name
 - *file type* - select Systemic Anti-Cancer Therapy - SACT
 - *file* - click the 'select file for upload button' and select your file
 - *date* - type the date of activity in file
 - *notes* - type any notes applicable in the free text field
- now click 'Upload'
 - file progress is shown in the 'Actions' tab
- once a file has been uploaded, a unique password is generated for each batch, this password MUST be saved before clicking off this page

Note: This is a one-time-only password which cannot be re-generated or accessed by the helpdesk staff. This password must be used in order to access the portal reporting. The only way to access portal reporting if this password is not recorded is to delete the file and reload the file again.

⁴ N3 is a national broadband network for the Engli33sh National Health Service (NHS), connecting all NHS locations

Step 2

View errors on the portal:

- to view the errors, click on the 'Batch Report' within the actions tab
- this will show you an error summary, highlighting the severity of the error
 - *critical error* - cannot be mapped
 - *local error* - can be mapped
 - regimen mapping can only be completed by registered mapper(s)

This screen also explains:

- the field with the error
- a description of the error
- the current field value and an ability to map from here

Note: Critical errors cannot be mapped and must be fixed at source. The file must then be re-loaded to the portal.

Step 3

- for critical errors, delete a file and correct errors on local system/file and re-upload to the portal
- where applicable map incorrect values to the national standard through the portal
- review and internally approve data being submitted with the help of the reports on the portal

Step 4

- map all outstanding regimens on the file

Step 5

- correct any 'queried' mapped regimens

Step 6

- once there are no remaining errors, unmapped regimens or queries on the regimen mapping, then the file can be submitted to the data set

Note: there is a step-by-step guide available on the SACT website⁵

⁵ www.chemodataset.nhs.uk/guides_and_support/

Data Submissions and File Naming Convention

The following file naming convention is to be used for all submissions:

- UnitID-ccyymmdd-ccyymmdd.csv

Where UnitID is an agreed unique identifier for the supplying SACT provider and matches the user login's unit code and ccyymmdd is the start date of the data (date of earliest treatment) followed by the end date (date of final treatment).

Files are transferred using the secure web based Hypertext Transfer Protocol Secure (HTTPS)/Secure Socket Layer (SSL) encrypted protocol, which is used on a daily basis for online shopping, online banking, etc. No extra action is required at the data suppliers end to establish this apart from being on an N3 network connection.

What Data Items Should Be Submitted?

All applicable data items specified as either mandatory or required in the data set should be submitted as soon as available.

The mandatory, required, optional or pilot (M/R/O/P) column indicates the requirement for the inclusion of data:

- **M = mandatory:** this data item is mandatory; the record cannot be submitted if the mandatory data items are not completed – the file will be rejected if mandatory items are absent and other data items are completed
- **R = required:** this data item is required as part of NHS business rules and must be included where available or applicable, however, the section can be submitted without completing all the required items
- **O = optional:** this data item can be included at the discretion of the submitting organisation and their commissioners as required for local purposes
- **P = pilot:** this data item will not normally be included in the direct submission from cancer service provider organisations unless the provider Trust is part of the specific pilot exercise

In the case of fields Primary Diagnosis and Morphology ICD-O, the requirement will be satisfied by 1 of the 2 fields being completed.

Validation

All data will be validated by SACT (on upload, via the web portal), according to a set of rules. If the data validation rules are not met, the whole or relevant parts (data set sections or records) of the extract may be rejected as described in section 8 (step 2) above. All fields will be validated against both:

- the information standard, to ensure that mandated fields are submitted
- the NHS Data Model and Dictionary, to ensure that only valid attributes are submitted (where applicable)

An indication of the areas which require attention will be provided in the form of an error report on screen.

The provider will be expected to resolve any errors/issues or add missing data and re-extract the file for sending to the SACT web portal (critical errors only) by the end of the reporting month, for re-validation:

- the turnaround time for validation, any re-submission and subsequent re-validation is set to the end of the first reporting month
- regimen mapping must be completed within 15 days of the following month
- all regimen queries must be resolved and the file submitted by the end of that month

Note: this requirement also forms part of the Medicines Optimisation CQUIN, and will be embedded in the 2018 to 2019 standard contract.

Reporting

SACT have been working with NCRAS and have developed standardised reports which are available to all providers submitting data through either the SACT reporting site⁶ or the NCRAS conformance portal (CancerStats2)⁷. The latter is only available through the NHS N3 Network.

Providers should continue to contact the SACT helpdesk or their regional NCRAS office to request any data they require, which is not made available via standardised reporting.

⁶ www.chemodataset.nhs.uk/reports/

⁷ <https://cancerstats.ndrs.nhs.uk/>