National Audit of Breast Cancer in Older Patients (NABCOP):
Data Flow Diagram

Existing datasets	Data processing: National Cancer Registration & Analysis Service (PHE)				Data processing: Clinical Effectiveness Unit (CEU).	
	National Cancer Registration & Analysis Service (NCRAS) **Data Controller: PHE** **Data Processor: NCRAS (PHE)**	**National Cancer Registration & Analysis Service (NCRAS)** **Data Controller: PHE** **Data Processor: NCRAS (PHE)**	**Data Linkage** **Data Controller: PHE** **Data Processor: NCRAS (PHE)**	**Pseudonymisation** **& National data opt-out** **National Cancer Registration & Analysis Service (NCRAS)** **Data Controller: PHE** **Data Processor: NCRAS (PHE)** **Release** **Data Controller: PHE** **Date Processor: Office for Data Release (ODR), PHE**	**Royal College of Surgeons (RCS) CEU:** **Processing of pseudonymised data.**	**RCS CEU Outputs:** **Anonymised and Aggregated.**

Cancer Outcomes and Services Dataset (COSD) / Data to register patient/Cancer registry (CR) data
Controller(s): Trusts
(Identifiable / sensitive)

Hospital Episode Statistics (HES) Data
Controller: NHS Digital
(Identifiable / sensitive)

ONS Mortality Data
Controller: ONS
(Identifiable / sensitive)

National radiotherapy data (RTDS)
Controller: PHE
(Identifiable / sensitive)

National chemotherapy data (SACT)
Controller: PHE
(Identifiable / sensitive)

Cancer Patient Experience Survey (CPES)
Controller: NHS England
(Identifiable / sensitive)

Diagnostic Imaging Dataset (DID)
Controller: PHE

Cancer Waiting Times (CWT)
Controller: NHS England
(Identifiable / sensitive)

NHS Breast Screening Programme (NHSBSP) / Association of Breast Surgery (ABS) UK breast screening audit.
Controller: PHE
(Identifiable / sensitive)

English Prescribing Dataset (EPD)
Controller: NHS Business Services Authority
(Identifiable / sensitive)

National Welsh Cancer Registry (NWCR) datasets
Controller: Cancer Network Registration Information System Cymru (CANISC)
(Identifiable / sensitive)

Patient Episode Database for Wales (PEDW) Data
Controller: Wales Information Centre (WIC).
(Identifiable / sensitive)

NCRAS load and process COSD/CR (core, breast, pathology) data into ENCORE
(Identifiable / sensitive)

NCRAS transfer data into Cancer Analysis System (CAS) (core, breast, pathology) data into ENCORE
(Identifiable / sensitive)

CANISC data extraction: Relevant Breast Cancer data.
(Identifiable / sensitive)

NCRAS extract patients diagnosed with breast cancer who meet eligibility criteria for NABCOP from CAS (NABCOP extract)
(Identifiable / sensitive)

NCRAS link NABCOP extract to unprocessed COSD data

NCRAS link NABCOP extract to HES data

NCRAS link NABCOP extract to ONS data

NCRAS link NABCOP extract to RTDS data

NCRAS link NABCOP extract to SACT data

NCRAS link NABCOP extract to CPES data

NCRAS link NABCOP extract to DID data

NCRAS link NABCOP extract to CWT data.

NCRAS link *NABCOP extract to NHSBSP/ABS data.*

NCRAS link *NABCOP extract to EPD data (pilot extract received in 2020).*
(Identifiable / sensitive)

CANISC/WIC linkage: NWCR Breast Cancer data to PEDW.
(Identifiable / sensitive)

NCRAS pseudonymisation NABCOP extract.
* NHS number replaced with Registry Patient ID.
* DoB replaced with age at diagnosis.
* Postcode replaced with LSOA.
(Sensitive)
National data opt-out implemented

ODR release
Pseudonymised NABCOP extract.
(Sensitive: : Trust/hospital site, consultant)

CANISC/WIC pseudonymisation and release.
(Sensitive)

RCS CEU
Receive the pseudonymised NABCOP extract.
(Sensitive: Trust/hospital)

RCS CEU
produce results on process and outcome indicators

RCS CEU
Annual Report(s).
(Anonymised & aggregated)

RCS CEU
Audit benchmarking website
(Anonymised & aggregated)

NHS choices / CQC metrics
Based on results from annual reports

RCS CEU
Peer-reviewed articles, conference presentations.
(Anonymised & aggregated)

KEY:
Green = Identifiable.
Blue = Pseudonymised.
Red = Anonymised and Aggregated.
Grey = Welsh datasets.
Italics = Future data linkage.
Highlighted in yellow = CEU Remit.