



METHODS



Technical Guidance for
Procedures Explorer Tool (PET)

V1.0



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1. Introduction

The Procedures Explorer Tool (PET) has been created by Methods Insight Analytics working in partnership with the Royal College of Surgeons England and NHS England. PET is an online tool, which users can interrogate data for specific surgical pathways, views are provided for both commissioners and providers in England. The data is for patients who have received treatment for interventions that have been agreed in consultation with the relevant clinical reference groups and is analysed on various indicators benchmarking against the national mean.

Each intervention is defined by a combination of ICD-10 diagnosis codes and OPCS 4.6 procedure codes. One or many of each of these can be used to determine patients who have been treated for each intervention.

Spell Identification

Methods have employed a methodology of counting unique SPELL_Identifier fields to pull back records from any episode where a patient has had an intervention. This ensures that we do not count multiple occurrences of an operation where it is coded in multiple episodes.



2. Dashboard Guidance

2.1. Directly Standardised Mortality Rates

Disease and mortality rates may vary widely by age. Such variation complicates any comparisons made between two populations that have different age structures. For example, consider two areas A and B with equal-sized populations and identical crude all-age death rates. At first glance they appear to have a similar mortality experience.

Suppose, however, that area A has a younger age structure than area B. Given that mortality rates increase with age, one would expect the older population in area B to experience more deaths. The fact that the two have identical rates means that the younger population in area A must have a relatively worse mortality experience.

The most comprehensive way of comparing the disease experience of two populations is to present and compare their age-specific rates. However, when the number of populations being compared increases, the volume of data that needs to be considered quickly becomes unmanageable. What is needed is a single, easily interpreted, summary figure for each population that is adjusted to take into account its age structure. Such summary figures are calculated using age standardisation methods. It may also be desirable to standardise for other variables, such as sex or level of deprivation that may also potentially confound any comparisons.

For directly standardised rates the age-specific rates of the subject population are applied to the age structure of the standard population. This gives the overall rate that would have occurred in the subject population if it had the standard age-profile.



3. The Indicators

3.1. Directly Standardised Activity Rate per 100000 population

Numerator:	Standard age/sex population x Rate of elective activity per 100000 population for same age/sex group
Denominator:	Standard age/sex population
Methodology:	Rate per 100000 population
Data Source:	HES (Hospital Episode Statistics) ONS: GP practice population age/sex 5 year age bands
Frequency:	Quarterly
Note:	DISCH_DATE IS NOT NULL ADMIMETH IN ('11','12','13') Gender_Code IN ('1','2') [Episode Number] = '1'

3.2. Activity Volume

	Count of activity
Data Source:	HES (Hospital Episode Statistics)
Frequency:	Quarterly
Note:	DISCH_DATE IS NOT NULL ADMIMETH IN ('11','12','13') [Episode Number] = '1'



3.3. Average Length of Stay (Days)

Numerator:	Number of elective bed days (excluding daycase)
Denominator:	Number of elective spells (excluding daycase)
Methodology:	Average
Data Source:	HES (Hospital Episode Statistics)
Frequency:	Quarterly
Note:	DISCH_DATE IS NOT NULL ADMIMETH IN ('11','12','13') CLASSPAT <> '2' [Episode Number] = '1'

3.4. Short Stay Rates (%)

Numerator:	Number of patients admitted and discharged within 48hrs
Denominator:	Total number of patients discharged
Methodology:	Percentage
Data Source:	HES (Hospital Episode Statistics)
Frequency:	Quarterly
Note:	DISCH_DATE IS NOT NULL ADMIMETH IN ('11','12','13') [Episode Number] = '1'



3.5. Day case Rates (%)

Numerator:	Number of elective procedures carried out as a daycase
Denominator:	Total number of elective procedures carried out
Methodology:	Percentage
Data Source:	HES (Hospital Episode Statistics)
Frequency:	Quarterly
Note:	DISCH_DATE IS NOT NULL ADMIMETH IN ('11','12','13') [Episode Number] = '1'

3.6. 7/30 day Re-admission Rate (%)

Numerator:	Total number of emergency re-admissions within 7/30 days of discharge
Denominator:	Total number of discharges following an elective admission
Methodology:	Percentage
Data Source:	HES (Hospital Episode Statistics)
Frequency:	Quarterly
Note:	Discharge Episodes: DISCH_DATE IS NOT NULL [Last Episode in Spell Indicator] = '1' CLASSPAT = '1' DISMETH <> '4' DISCH_DATE IS NOT NULL ADMIMETH IN ('11','12','13') Admission Episodes: [Episode Number] = '1' CLASSPAT = '1' ADMIMETH IN ('21','22','23','24','28')



3.7. Re-operations within 30 days (%)

Numerator: Total number of re-operations within 30 days of discharge

Denominator: Total number of discharges following an elective admission

Methodology: Percentage

Data Source: HES (Hospital Episode Statistics)

Frequency: Quarterly

Note: Discharge Episodes:

DISCH_DATE IS NOT NULL
[Last Episode in Spell Indicator] = '1'

CLASSPAT = '1'

DISMETH <> '4'

DISCH_DATE IS NOT NULL

ADMIMETH IN ('11','12','13')

Admission Episodes:

[Episode Number] = '1'

CLASSPAT = '1'