



Long-stay patients methodology

July 2019

NHS England and NHS Improvement



Contents

Summary	4
Activity type	4
Patient age	5
Admission and LoS groups	5
Trust type	5
Trust trajectories	6
Appendix: Acute treatment functions.....	7

Summary

This document sets out the standardised definition and methodology for counting long-stay patients and bed days in SitRep, SUS+ and HES, including the reason for each applied inclusion/exclusion.

A long-stay patient can be defined as an adult patient who has occupied an acute bed for 21 days or longer.

The methodology is:

- acute activity only¹
- 18+ only²
- excludes regular day and night attenders, day cases and zero length of stay (LoS) admissions
- acute trusts only
- count long-stay days only (ie Day 21 onwards).

The measure is a snapshot taken at midnight.

We do not advise comparing this metric between providers because hospitals provide significantly different services.

Activity type

SitRep and SUS data covers most activity types including maternity and mental health.

However, the reasons for only including acute activity are:

- maternity beds are generally not available to be repurposed for other admissions, and long-stay maternity patients do not affect the flow from A&E
- service users in a mental health trust can be separately identified by trust type (see 'Trust type' below)
- mental health service users in an acute trust constitute less than 0.1% of such trusts' patients

¹ For a full list of acute treatment functions, see Appendix.

² Due to data quality issues, an upper age limit of 130 is advised.

- mental health service users' discharge needs differ from those of other long-stay patients.

Specialist rehab activity is included in the definition of long stay as there is still scope to reduce the length of stay (LoS) for those patients whose expected LoS is longer than 21 days. Even relatively minor reductions in the average LoS of these patients will make important savings.

Patient age

All adult age groups are covered by SitRep and SUS data. It is restricted to adult patients because:

- part of the interest in long-stay patients relates to their interrelationship with delayed transfers of care (DToCs)
- DToCs only apply to adults
- to maintain correspondence with DToC, children are excluded.

Admission and LoS groups

Not all types of hospital admission are relevant to long-stay patients. The definition is restricted to overnight admissions because:

- most elective admissions are day-case admissions; while these constitute a large volume of patients, they do not contribute to the bed-day counts
- the number of zero LoS non-elective admissions has continuously increased as the concept of ambulatory emergency care has taken hold; such cases are referred to as 'emergency day cases'
- regular day and night attenders – for example, for dialysis – constitute a specific category of admission; as for day cases, such attenders will never be part of the 21+ days long-stay patient cohort and will not increase the bed-day count.

Trust type

There are several trust types: acute, community, mental health and specialist. Each type will have different LoS patient profiles. For example, a service user admitted to a mental health trust is more likely to have a long LoS than a patient admitted to an

acute trust for elective care. For this reason, the long-stay metric applies to acute trusts only.

Trust trajectories

Trust trajectories are a linear reduction from the baseline period (March 2018) to the assessment period (March 2020); that is, each week a trust has to reduce its long-stay beds by a slightly greater percentage than in the previous week.

To adjust for seasonality, a long-term daily snapshot time series was created using SUS+.³ Using this time series the seasonality profile for each trust was modelled and applied to the linear reduction, creating a seasonality-adjusted daily trajectory for each trust. This daily trajectory was then aggregated to the weekly level by taking the average for the week.

³ SUS+ was used as the daily SitRep time series was not long enough

Appendix: Acute treatment functions

100 General surgery	223 Paediatric Epilepsy
101 Urology	241 Paediatric Pain Management
102 Transplantation surgery	242 Paediatric Intensive Care
103 Breast surgery	251 Paediatric Gastroenterology
104 Colorectal surgery	252 Paediatric Endocrinology
105 Hepatobiliary and pancreatic surgery	253 Paediatric Clinical Haematology
106 Upper gastrointestinal surgery	254 Paediatric Audiological Medicine
107 Vascular Surgery	255 Paediatric Clinical Immunology and Allergy Service
108 Spinal Surgery Service	256 Paediatric Infectious Diseases
110 Trauma & Orthopaedics	257 Paediatric Dermatology
120 ENT	258 Paediatric Respiratory Medicine
130 Ophthalmology	259 Paediatric Nephrology
140 Oral Surgery	260 Paediatric Medical Oncology
141 Restorative Dentistry	261 Paediatric Metabolic Disease
142 Paediatric Dentistry	262 Paediatric Rheumatology
143 Orthodontics	263 Paediatric Diabetic Medicine
144 Maxillo-Facial Surgery	264 Paediatric Cystic Fibrosis
150 Neurosurgery	280 Paediatric Interventional Radiology
160 Plastic Surgery	290 Community Paediatrics
161 Burns Care	291 Paediatric Neuro-Disability
170 Cardiothoracic Surgery	300 General Medicine
171 Paediatric Surgery	301 Gastroenterology
172 Cardiac Surgery	302 Endocrinology
173 Thoracic Surgery	303 Clinical Haematology
174 Cardiothoracic Transplantation	304 Clinical Physiology
180 Accident & Emergency	305 Clinical Pharmacology
190 Anaesthetics	306 Hepatology
191 Pain Management	307 Diabetic Medicine
192 Critical Care Medicine	308 Blood and Marrow Transplantation
211 Paediatric Urology	309 Haemophilia Service
212 Paediatric Transplantation Surgery	310 Audiological Medicine
213 Paediatric Gastrointestinal Surgery	311 Clinical Genetics
214 Paediatric Trauma and Orthopaedics	313 Clinical Immunology and Allergy Service
215 Paediatric Ear Nose and Throat	314 Rehabilitation Service
216 Paediatric Ophthalmology	315 Palliative Medicine
217 Paediatric Maxillo-Facial Surgery	316 Clinical Immunology
218 Paediatric Neurosurgery	317 Allergy Service
219 Paediatric Plastic Surgery	318 Intermediate Care
220 Paediatric Burns Care	319 Respite Care
221 Paediatric Cardiac Surgery	
222 Paediatric Thoracic Surgery	

320 Cardiology	421 Paediatric Neurology
321 Paediatric Cardiology	422 Neonatology
322 Clinical Microbiology	430 Geriatric Medicine
323 Spinal Injuries	450 Dental Medicine Specialties
324 Anticoagulant Service	460 Medical Ophthalmology
325 Sport and Exercise Medicine	502 Gynaecology
327 Cardiac Rehabilitation	503 Gynaecological Oncology
328 Stroke Medicine	650 Physiotherapy
329 Transient Ischaemic Attack	651 Occupational Therapy
330 Dermatology	652 Speech and Language Therapy
331 Congenital Heart Disease Service	653 Podiatry
340 Respiratory Medicine	654 Dietetics
341 Respiratory Physiology	655 Orthotics
342 Programmed Pulmonary Rehabilitation	656 Clinical Psychology
343 Adult Cystic Fibrosis Service	657 Prosthetics
344 Complex Specialised Rehabilitation Service	658 Orthotics
345 Specialist Rehabilitation Service	659 Drama Therapy
346 Local Specialist Rehabilitation Service	660 Art Therapy
350 Infectious Diseases	661 Music Therapy
352 Tropical Medicine	662 Optometry
360 Genitourinary Medicine	663 Podiatric Surgery
361 Nephrology	800 Clinical Oncology (Previously Radiotherapy)
370 Medical Oncology	810 Radiology
371 Nuclear Medicine	811 Interventional Radiology
400 Neurology	812 Diagnostic Imaging
401 Clinical Neurophysiology	822 Chemical Pathology
410 Rheumatology	834 Medical Virology
420 Paediatrics	840 Audiology
	920 Diabetic Education Service

This information can be made available in alternative formats, such as easy read or large print, and may be available in alternative languages, on request. Please contact the project team at: nhsi.longstaysdashboard@nhs.net.

0300 123 2257 enquiries@improvement.nhs.uk improvement.nhs.uk

Publication code: IT 10/19