

EXECUTIVE SUMMARY

OF

DATA DICTIONARY TO ASSIST WITH THE

IMPLEMENTATION OF

‘A QUALITY FRAMEWORK & SUITE OF

QUALITY MEASURES FOR THE EMERGENCY

DEPARTMENT PHASE OF ACUTE PATIENT

CARE IN NEW ZEALAND’

This summary solely contains definitions for those clinical indicators contained in the document:

"A Quality Framework and Suite of Quality Measures for the Emergency Department Phase of Acute Patient Care in New Zealand"¹

For more information as to how these definitions were developed, please refer to the master Data Dictionary:

"Data dictionary to assist with the implementation of 'A quality framework & suite of quality measures for the emergency department phase of acute patient care in New Zealand'"²

Where a calculation exists for the stated quality measure, numbers refer to fuller definitions in the formal document:

Example: [ED LOS = \(2.12\) ED Departure Time – \(2.3\) ED Presentation Time](#)

2.12 and **2.3** pertain to definitions found in the master document.

The clickable hyperlinks should transfer to the relevant definition in the master document.

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A. Patient Journey Time Stamps:

1. ED LOS

Fieldname	<i>edlos</i>
Definition	Emergency Department Length of Stay. Interval between Presentation Time and ED Departure Time during the same hospital event. Departure from ED means admission to hospital, discharge from the ED to the community or transfer from ED to another acute hospital.
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting	Mandatory
Frequency	Continuously
Description	Length of stay for all patients presenting to the ED during time period X who are subsequently admitted to the Hospital, transferred or discharged from the Emergency Department during the same hospital event. It is mandatory for each hospital to report ED LOS as per the MOH “Shorter Stays in Emergency Departments Health Target” therefore all DHBs should be able to provide data for ED LOS. The target maintains that 95% of patients will be admitted, transferred or discharged within 6 hours.
Quality Measure	<i>(2.12) ED Departure Time – (2.3) ED Presentation Time</i>
Expressed As	Numeric (Time).
Numerator	Number of eligible patients meeting target for time of disposition
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for time of distribution %(95%CI)

2. Ambulance Offload Time

Fieldname	<i>ambofftime</i>
Definition	The time spent by the ambulance crew at the treatment facility handing over care of the patient to the receiving clinicians and making ready for the next job.
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting	Discretionary
Frequency	Regularly
Description	This is T6 / T7 of the St John Ambulance time stamps (figure 2). Other Ambulance services such as the Wellington Free Ambulance may have their own equivalent time stamps. This refers to the time it takes for the ambulance crew (after arriving at the treatment facility) to hand patient care over to the receiving clinicians. This can be a proxy measure of ambulance ramping (suggesting ED overcrowding) – a long offload time suggests delays in handing over patient care. Delays to ambulance off-load and ‘ramping’ are not considered to be a significant problem in NZ, however this needs to be monitored to ensure delays to offloading are not used to game the SSED target.
Quality Measure	<i>(2.2) Ambulance returning to station time – (2.1) Ambulance at hospital time</i>
Expressed As	Numeric (Time)
Numerator Denominator	Number of ambulance visits meeting target return time Total number of ambulance visits
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for time of distribution %(95%CI)

3. Triage to Clinical Decision Maker Time

Fieldname	<i>tritocdm</i>
Definition	The time taken for a patient be seen by an ED clinician following triage.
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting	Mandatory
Frequency	Continuously
Description	Time taken from initial triage to be first attended to by an Emergency Department Health Professional or Clinical Decision Maker. A clinical decision maker can include any clinician who can make clinical decisions or begin a care pathway over and above triage: ▪ Doctor ▪ Emergency Nurse Practitioner ▪ Clinical nurse specialist ▪ Nurse using clinical pathway “Traditionally the Australasian Triage Scale (ATS) benchmarking has been used to assess this, with associated triage category performance thresholds published by the ACEM. Because of the evolution of the models of care in our EDs, comparison of an ED’s performance against the performance thresholds published by ACEM for each of the triage categories has become a less accurate indicator of quality than it once was. However, it is recommended that such comparison is made, as part of internal quality improvement processes. While a gap between an ED’s performance and the ATS suggested performance might not represent a deficiency of care it should stimulate scrutiny to see if there are deficiencies and if improvements need to be made. Like all the indicators being used, it is most valuable as part of well-informed internal quality improvement processes rather than as isolated and ill-informed critique”.¹
Quality Measure	(2.5) ED Assessment Time – (2.4) ED Triage Time
Expressed As	Numeric (Time)
Numerator	Number of patients meeting triage target time for category
Denominator	Total number of patients in that triage category
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long time intervals</i> Proportion meeting target for triage category %(95%CI)

4. Other Patient Journey Time Stamps

4.1. ED Presentation to Inpatient Team Referral Time

Fieldname	<i>edpresipref</i>
Definition	The time it takes from ED arrival to referral for inpatient team assessment, for patients who need specialist input.
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting Frequency	Discretionary Regularly
Quality Measure	(2.6) ED Referral Time – (2.3) ED Presentation Time
Expressed As	Numeric (Time)
Numerator	Number of patients meeting target time for inpatient review Total number of patients referred to inpatient team
Denominator	Median Minutes (IQR) – standard measure
Summary Statistic	<i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for inpatient team review %(95%CI)

4.2. ED Referral to Inpatient Team Assessment Time

Fieldname	<i>edrefipass</i>
Definition	The time it takes from the ED referral to the actual inpatient team assessment for patients who need specialist input.
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting Frequency	Discretionary Regularly
Quality Measure	(2.7) Inpatient Team Start Time – (2.6) ED Referral Time
Expressed As	Numeric (Time)
Numerator	Number of patients meeting target time for inpatient review Total number of patients referred to inpatient team
Denominator	Median Minutes (IQR) – standard measure
Summary Statistic	<i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for inpatient team review %(95%CI)

4.3. Inpatient Team Assessment to Completion Time

Fieldname	<i>ipassipfin</i>
Definition	The time it takes for the inpatient team to completely assess patients who need specialist input.
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting Frequency	Discretionary Regularly
Quality Measure	(2.8) Inpatient Team Finish Time – (2.7) Inpatient Team Start Time
Expressed As	Numeric (Time)
Numerator	Number of patients meeting target time for inpatient disposition Total number of patients referred to inpatient team
Denominator	Median Minutes (IQR) – standard measure
Summary Statistic	<i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for inpatient team disposition %(95%CI)

4.4. Bed Request to Bed Allocation Time

Fieldname	<i>bedreqall</i>
Definition	The time interval from bed request to bed allocation
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting Frequency	Discretionary Regularly
Quality Measure	(2.10) Bed Allocation Time – (2.9) Bed Request Time
Expressed As	Numeric (Time)
Numerator	Number of patients meeting target time for bed request
Denominator	Total number of patients admitted to hospital
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for bed request %(95%CI)

4.5. Bed Allocation to ED Departure Time

Fieldname	<i>bedalleddep</i>
Definition	The time interval from inpatient bed allocation to the patient leaving the emergency department
Layout	NNNNN (Time in Minutes: up to 5 characters)
Reporting Frequency	Discretionary Regularly
Quality Measure	<i>(2.12) ED Departure Time – (2.10) Bed Allocation Time</i>
Expressed As	Numeric (Time)
Numerator	Number of patients meeting target time for bed allocation to admission
Denominator	Total number of patients admitted to hospital
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for bed allocation %(95%CI)

5. Access Block

Fieldname	<i>accblk</i>
Definition	Percentage of patients in ED requiring hospital admission spending >8 hours waiting in the ED for an Inpatient Bed.
Layout	NNNNN (Number: 5 characters)
Reporting Frequency	Discretionary Regularly
Description	The percentage of the ED to Ward admissions total whose ED LOS was greater than 8 hours over the study time period.
Quality Measure	<i>(Number of Admitted Patients with ED LOS > 8 hours / ED to Ward Admissions Total) x 100</i>
Expressed As	Numeric (Count)
Numerator	Number of patients who were admitted or planned for admission whose total ED time exceeded 8 hours
Denominator	Number of patients who were admitted or planned for admission
Summary Statistic	Proportion %(95%CI)

B. ED Overcrowding Measures:

6.0 LOS Patients in Inappropriate ED Bed Spaces	
Fieldname	<i>edlosinapp</i>
Definition	Length of time patients spend in inappropriate bed spaces in ED
Layout	NNNNN (Time in Minutes)
Reporting Frequency	Mandatory Regularly
Description	Length of stay of patients in inappropriate spaces (total patient hours). This measure is considered one that all EDs should scrutinise. While it might be difficult to do for some EDs, and therefore might be regular rather than continuous, it is a direct measure of what the Shorter Stays Target was attempting to address (ED overcrowding). However, if computer coding doesn't allow the capture of this information, then the ED Occupancy Rate (3.7) might be substituted. Time period to be scrutinised can be chosen by organisation.
Quality Measure	(2.12) ED Departure Time – (2.3) ED Presentation Time for: Subset: Proportion ED Patients in Inappropriate ED Bed Spaces (3.5) over time period X
Expressed As	Numeric (Time).
Numerator	Number of eligible patients meeting target for time of disposition Total number of eligible patients
Denominator	Median Minutes (IQR) – standard measure
Summary Statistic	<i>Mean (95%CI) – best reflects long lengths of stay</i> Proportion meeting target for time of disposition %(95%CI)

6.1. Proportion Time EDO >100%

Fieldname	<i>edo100</i>
Definition	Number of hours the hourly bed occupancy rate for the Emergency Department exceeds 100% as a proportion of the total time period chosen to be measured
Layout	NNN (Number: 3 Characters)
Reporting Frequency	Mandatory Regularly
Description	ED occupancy rate of over 100% (all patient care spaces/cubicles full). This measure gives an indication of ED occupancy which would impair patient flow and lead to placement of patients in corridors or other clinically inappropriate places. It should be relatively easy to measure using number of patients in the ED (including in the waiting room) over any time period (x) and the total number of treatment spaces. It is a measure that could be made in 'real time' or as a retrospective measure of the amount or proportion of time the department is 100% or more occupied. Time period to be scrutinised can be chosen by the organisation.
Quality Measure	<i>(3.7) Number of Hours EDO >100% / Number of Hours in chosen ED Time Period X x 100</i>
Expressed As	Numeric (Count)
Numerator	Number of hours EDO >100% (3.7)
Denominator	Number of hours in chosen ED Time period X
Summary Statistic	Proportion, %(95%CI)

C. ED Demographic Measures:

7. ED Patient Attendance / 1000 population

Fieldname	<i>edpatattpop</i>
Definition	Number of Emergency Medicine patients attending the Emergency Department per 1000 of the population served by the particular ED.
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Discretionary Regularly
Description	“This measure gives an indication of ED utilisation by the population. While there isn’t a ‘right’ utilisation, it is considered that less than 200 per 1000 is a low rate of utilisation, and over 300 is high. This measure gives a snapshot of utilisation. This measure should also capture use by ethnicity.”¹ The yearly ED patient census is the total number of Emergency Medicine presentations to an Emergency Department over a full calendar year (00:00 01/01/CCYY – 23:59 31/12/CCYY). The population of the ED catchment area is the number of people in the area served by the particular emergency department. This may equal that population served by the DHB.
Expressed As	Numeric (Count)
Numerator	ED Patient Census *Yearly* (3.4)
Denominator	Population of ED Catchment Area (DHB Boundary)/1000
Summary Statistic	Rate (number/year)/1000 DHB population base

8. ED Patient Attendance by ATS Category

Fieldname	<i>edattttricat</i>
Definition	Number of patients attending the ED grouped into triage categories
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Discretionary Regularly
Description	This gives a snapshot of the acuity of patients attending the emergency department and how many low to high acuity patients are seen. This helps to inform ED funding, design and staffing models. The total patient census over a time period X is broken down in to numbers per triage category (1-5). The time period to be scrutinised can be chosen by the organisation.
Expressed As	Numeric (Count)
Numerator	ED Patient Census (Subsets Triage Category 1-5) *in time period X* (3.4)
Denominator	ED Patient Census *in time period X* (3.4)
Summary Statistic	Proportion %(95%CI)

9. Admission Rate by ATS Category

Fieldname	<i>adratetricat</i>
Definition	Number of patients admitted to inpatient services from the ED, broken down into triage category subsets.
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Discretionary Regularly
Description	Gives a snapshot as to the acuity of patients attending the ED. It would be expected that admission rates would be highest in triage categories 1-2 and lowest in categories 4-5. Category 1 (Target 75-90%) Category 2 (Target 60-70%) Category 3 (Target 50-60%) Category 4 (Target 20-30%) Category 5 (Target 5-10%)
Expressed As	Numeric (Count)
Numerator	ED Patient Census (Subset: Triage Category 1-5) *Yearly* (3.4) ED Patient Census *Yearly* (3.4)
Denominator	Proportion %(95% CI)
Summary Statistic	

10. Admission Rate / 1000 population

Fieldname	<i>adratepop</i>
Definition	Number of Emergency Medicine patients admitted to inpatient services from the Emergency Department, per 1000 of the population served by the particular ED.
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Discretionary Regularly
Description	Excludes ED Short Stay Patients, ED Discharged Patients, DNW and DOA
Expressed As	Numeric (Count)
Numerator	ED Patient Census (Subset: Admitted) *Yearly* (3.4)
Denominator	Population of ED Catchment Area (DHB boundary)/1000
Summary Statistic	Rate (number/year)/1000 DHB population base

11. Unplanned ED Re-Attendance Rate < 48 hours

Fieldname	<i>edrateendrate</i>
Definition	Proportion of ED attendances over time period X who have an unplanned returned to the ED within 48 hours of discharge, with the same medical problem.
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Mandatory Regularly
Quality Measure	(4.6) Unplanned ED Re-attendances <48 hour *time period X* / (3.4) ED Patient Census *time period X* x 100
Expressed As	Numeric (Count)
Numerator	Unplanned ED Re-attendances <48 hours (4.6) *time period X*
Denominator	ED Patient Census *time period X* (3.4)
Summary Statistic	Proportion %(95% CI)

D. ED Quality Processes:

12. Mortality and Morbidity Review Sessions

Mandatory

Regularly

Definition and implementation to be established locally by individual departments.

“This measure is fulfilled if regular sessions occur (at least 12 monthly), relevant learnings are collated and appropriate changes are made as a consequence. In other words, it is not just the performance of these sessions, but the contribution of these sessions to quality improvement. Cases might lead to performance of a clinical quality audit (see below) or a sentinel review process, to elucidate the learnings and to define what changes need to be made.”¹

13. Sentinel Events Review Processes

Mandatory

Regularly

Definition and implementation to be established locally by individual departments.

“These reviews are a formal process for investigating significant clinical events that resulted, or might have resulted, in patient harm. While the expectation is that such reviews would take place regularly, they would be triggered by a sentinel event and wouldn’t necessarily follow a minimum 12 monthly frequency.”¹

14. Complaint Review and Response Process

Mandatory

Regularly

Definition and implementation to be established locally by individual departments.

“Like mortality and morbidity review sessions and sentinel event review processes, the expectation of this measure is that there will be a process of review and response to complaints that feeds into quality improvement by identifying and addressing any deficiencies of care. This may be integrated into a DHB process.”¹

15. Staff Experience Evaluations

Mandatory

Regularly

Definition and implementation to be established locally by individual departments.

“It is expected that all emergency departments listen to the views of their staff regarding the quality of the department (job satisfaction, and patient care). Mechanisms to address this measure could include staff forums, planning days, staff appraisals, exit interviews, etc.”¹

The measures above are not formally defined in this document, as the execution of these measures will be particular to the individual emergency department.

E. Patient Experience Measures:

16. Patient Experience Evaluations

Mandatory

Regularly

Definition and implementation to be established locally by individual departments / DHBs.

“It is expected that all DHBs listen to the views of their patients regarding the care they received. Mechanisms to address this measure could include general conversations with patients, written feedback and formal surveys. To assist with this process, the Health Quality and Safety Commission New Zealand are developing a set of patient experience indicators. The Commission is working closely with the Ministry of Health on the future implementation of the tool across the sector. DHBs will be able to add questions relevant to them and able to undertake more frequent local surveys.

www.hqsc.govt.nz/our-programmes/health-quality-evaluation/news-and-events/news/1085”¹

17. Patient / Consumer participation in Quality Improvement processes

Discretionary

Regularly

Definition and implementation to be established locally by individual departments / DHBs.

“Consumer involvement might be in addition to patient satisfaction surveys. This might include ‘health literacy’ contribution to the development of patient information.”¹

18. Left before seeing decision making ED Clinician (Rate)

Fieldname	<i>lwbsrate</i>
Definition	Proportion of all attendances in time period X, where a patient registered at triage, but left without being seen by an ED Health Professional.
Layout	NNNNNN (number: 6 Characters)
Reporting Frequency	Mandatory Regularly
Reported For	Includes: All Registered ED Presentations
Description	“Patients who are triaged but then do not wait for the doctor, or other decision making clinician to see them, might do so for a variety of reasons. However, among those reasons are long waits to see a doctor or other decision making clinician. The proportion of patients who do not wait should be measured for two reasons. First, a large number (more than a few percent) might represent a problem accessing care which the DHB should address. Secondly, this group are excluded from counting towards the SSED health target.” ¹
Quality Measure	(6.3) Left before seeing decision making ED Clinician *time period X* / (3.4) ED patient census *time period X* x 100
Expressed As	Numeric (Count)
Numerator	Left before seeing decision making ED Clinician *time period X* (6.3)
Denominator	ED Patient census *time period X* (3.4)
Summary Statistic	Proportion %(95%CI)

19. Left before ED care completed (Rate)

Fieldname	<i>leftedrate</i>
Definition	Proportion of all attendances in time period X, where a patient registered at triage and subsequently seen by a treating ED Health Professional but left before their care was formally completed.
Layout	NNNNNN (number: 6 Characters)
Reporting Frequency	Discretionary Regularly
Reported For	Includes: All Registered ED Presentations
Quality Measure	<i>(6.5) Left before ED care completed *time period X* / (3.4) ED patient census *time period X* x 100</i>
Expressed As	Numeric (Count)
Numerator	Left before ED care completed *time period X* (6.5)
Denominator	ED patient census *time period X* (3.4)
Summary Statistic	Proportion %(95%CI)

F. Clinical Quality Audits:

20. Mortality rates for specific conditions benchmarked against expected rates.

Mandatory

Regularly

“These are likely to be done in conjunction with other departments and might be occurring continuously as part of a registry or trauma system. For example:

- fractured neck of femur
- STEMI
- major trauma.”¹

Implementation is to be established locally by individual departments / DHBs

21. Clinical Audits: Time to Reperfusion in STEMI / ACS

21.1. Time to Thrombolysis

Fieldname	<i>timetothromb</i>
Definition	Time from arrival to thrombolytic therapy delivery
Layout	MMMM (Minutes)
Reporting	Mandatory
Frequency	Regularly
Reported For	Includes: All Patients with STEMI who receive Thrombolysis Excludes: Patients who do not have STEMI who receive thrombolysis and patients who have STEMI who receive other reperfusion therapy (or none).
Quality Measure	(7.3.7) First Reperfusion Time – (2.3) ED Presentation Time (when first reperfusion = thrombolysis)
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to thrombolysis
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time for thrombolysis %(95%CI)

21.2. Time to PCI

Fieldname	<i>timetopci</i>
Definition	Time from arrival to percutaneous coronary intervention device deployment, obtaining coronary artery flow again
Layout	MMMM (Minutes)
Reporting	Mandatory
Frequency	Regularly
Reported For	Includes: All Patients with STEMI who receive PCI Excludes: Elective PCI and patients with STEMI that receive either no reperfusion therapy or reperfusion therapy other than PCI
Quality Measure	(7.3.7) First Reperfusion Time – (2.3) ED Presentation Time (when first reperfusion = PCI)
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to PCI
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time to PCI %(95%CI)

22. Clinical Audits: Time to Adequate Analgesia

22.1. Time to First Pain Score ED

Fieldname	<i>timetofirstps</i>
Definition	Time from presentation in ED to the triage assessment of the pain score
Layout	MMMM (Minutes)
Reporting Frequency	Mandatory Regularly
Reported For	Includes: All ED patients presenting with pain Excludes: ED patients presenting without pain
Quality Measure	(7.4.3) Time First Pain Score ED – (2.3) ED Presentation Time
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to triage pain score
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time to triage pain score %(95%CI)

22.2. Time to First ED Analgesia

Fieldname	<i>timetoedanalg</i>
Definition	Time from arrival to first analgesia given in the emergency department
Layout	MMMM (Minutes)
Reporting Frequency	Mandatory Regularly
Reported For	Includes: All ED patients presenting with pain who were given analgesic agents in the ED Excludes: ED patients presenting without pain and patients who did not receive analgesia in the ED
Quality Measure	(7.4.8) First ED Analgesia Time – (2.3) ED Presentation Time
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to analgesia
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time for analgesia %(95%CI)

22.3. Time to Pain Score Reassessment: First Post-Analgesia

Fieldname	<i>timetoressessps</i>
Definition	Time from first analgesia given in the emergency department to reassessment of the pain score
Layout	MMMM (Minutes)
Reporting Frequency	Mandatory Regularly
Reported For	Includes: All ED patients presenting with pain Excludes: ED patients presenting without pain
Quality Measure	<i>(7.4.14) Time pain score reassessed: first post-analgesia - (7.4.8) First ED Analgesia Time</i>
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to pain score reassessment: first post analgesia
Denominator	Total number of eligible patients Median Minutes (IQR) – standard measure
Summary Statistic	<i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time for pain score reassessment (95%CI)

23. Clinical Audit: Time to Antibiotics in Sepsis

23.1. Time to ED First Antibiotic

Fieldname	<i>timetofirstabx</i>
Definition	Time from presentation to the emergency department to the first antibiotic given
Layout	MMMM (Minutes)
Reporting Frequency	Mandatory Regularly
Reported For	Includes: All ED Presentations
Quality Measure	(7.5.6) ED First Antibiotic Time - (2.3) ED Presentation Time
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to antibiotics
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time for antibiotics %(95%CI)

23.2. Time to First Appropriate Antibiotic

Fieldname	<i>timetofirstappabx</i>
Definition	Time from presentation to the emergency department to the first appropriate antibiotic given
Layout	MMMM (Minutes)
Reporting Frequency	Mandatory Regularly
Reported For	Includes: All ED Presentations
Quality Measure	(7.5.12) FirstAppABXTime - (2.3) ED Presentation Time
Expressed As	Numeric (Time)
Numerator	Number of eligible patients meeting target time to antibiotics
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure <i>Mean (95%CI) – best reflects long times</i> Proportion meeting target time for antibiotics %(95%CI)

24. Procedural and Other Audits

Mandatory

Regularly

Definitions and implementation to be established locally by individual departments.

For example, audits into the numbers, appropriateness, success and complications of:

- Procedural sedation
- Endotracheal intubation
- Central lines
- Audit of appropriateness of imaging
- Audit of appropriateness of pathology testing.

25. Other Clinical Audits

Mandatory

Regularly

Definitions and implementation to be established locally by individual departments.

“The expectation is that a clinical audit will be performed at least every 12 months, rotating randomly or according to a local focus – possibly identified in a mortality and morbidity review or sentinel event review process. Some examples are listed below, (including countries where they are recommended), however, the choice of topic to audit should be dictated by local need”¹:

- Paediatric fever (0 to 28 days) with septic workup percent (Canada 2010)
- Paediatric fever (0 to 28 days) who get antibiotics percent (Canada 2010)
- Paediatric croup (3 months to 3 years) who get steroids percent (Canada 2010)
- Time to treatment for asthma
- Asthma patients (moderate and severe) who are discharged from the ED who get a discharge prescription for steroids percent (Canada 2010)
- Time to antibiotics in meningitis percent (Canada 2010)
- Cellulitis that ends in admission percent (NHS England 2012)
- DVT that ends in admission percent (NHS England 2012)
- Audit of high risk or high volume conditions (ACEM 2012)
- Audit of clinical guidelines compliance (ACEM 2012) \
- Audit of medication errors (ACEM 2012)
- Patient falls
- Missed fractures on X-rays percent

- Screening for non-accidental injury and neglect in children
- Screening for domestic violence and partner abuse
- Public health/preventative audits, such as alcohol or substance misuse
- Appropriate discharge of vulnerable people from the ED (to include discharge of older people at night).

G. Documentation and Communication Audits

Mandatory

Regularly.

The definitions for the quality of communication with GP's audit are provided below as an example. For other audits under this category definitions and implementation are to be established locally by individual departments.

These should be done regularly and might consist of all or an alternating selection of the following:

26.1. Quality of Notes Audit

Documentation standards. Such audits will examine documentation standards under locally selected criteria but would normally include attention to recording of doctors' and nurses' names, times of clinical encounters, good clinical information, appropriate details of discharge condition of the patient and discharge instructions.

26.2. Quality of Discharge Instructions Audit

This measure is considered of particular importance. It might be achieved by specific attention to this issue in a notes audit or a focus on the proportion of patients who get written discharge advice or those with specific conditions (for example, sutures or a minor head injury), who get appropriate written discharge instructions.

26.3. Quality of Internal Communication within the Hospital

Related to handover of care between the ED and other services

26.4. Quality of Communication with GP for Discharged Patients Audit

Handover of care to the patient's GP, (and provision of appropriate follow up arrangements), is important. This might be a focused part of a general notes audit, or it might be a count and quality appraisal of written or electronic notes to the patients' GPs.

26.4.1. Overall Adequacy Discharge Information	
Fieldname	<i>dcoverallad</i>
Definition	The overall adequacy of discharge information
Layout	N (Number: 1 Characters)
Codeset (If Applicable)	1 = Adequate 2 = Inadequate 3 = Unacceptable 4 = Not Available
Reporting	Mandatory
Description	Regularly • Discharge Diagnosis • Treatment Information • Treatment Complications Information • Procedure Information • Procedure Complications Information • Investigation Results Information • GP-Specific Ongoing Care Information • Patient Information Adequacy - Overall • Discharge Medication Information • Review (General Follow-Up) Information Adequate = Discharge Diagnosis must be adequate. To be overall adequate the discharge summary must have scored adequate in all 10 of the components. (If patient specific info on d/c summary is inadequate, but clinical notes adequate can have overall adequate for patient info and vice versa). Inadequate = less than 10 out of 10 above points Unacceptable = any point rated as unacceptable – this is something that may have the potential to cause harm to the patient, or no discharge summary completed for event. Not Available = notes for event not available.
Expressed As	Numeric (Percentage)
Numerator	The number of discharge summaries that are adequate, inadequate or unacceptable respectively
Denominator	Total number of patients in audit, discharged from the ED
Summary Statistic	Proportion %(95% CI)

H. Performance of Observation / Short Stay Units

27. LOS ED Observation Unit/SSU

Fieldname	<i>ssulos</i>
Definition	Length of stay of the ED observation / short stay unit – proportion (%) under expected LOS to be reported
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Discretionary Regularly
Description	The time from physical admission to the unit until physical departure (discharge or transfer to a ward) – percent under expected LOS. More than 80 percent of those admitted to an ED SSU or observation unit are anticipated to be under the expected LOS. “The expected length of stay of these units should be defined and monitored. Generally the expected length of stay would be 8 to 12 hours, although some might accept up to 24 hours. Whatever the model adopted it should be policed to ensure the majority (80% or more) are discharged within this time. This, and the next two measures, help ensure that the unit is used for appropriate observation patients, and not as a ‘work around’ for barriers to accessing inpatient care.”¹
Includes	All patients under the care of an Emergency Medicine specialist who are admitted to an ED Short Stay ward
Excludes	Patients under the care of an Emergency Medicine specialist who are not admitted to an ED Short Stay ward, and patients under the care of inpatient teams.
Quality Measure	(2.12) ED Departure Time - (2.11) ED SSU Admit / Assign Time
Expressed As	Numeric (Time).
Numerator	Number of eligible patients meeting target for time of disposition
Denominator	Total number of eligible patients
Summary Statistic	Median Minutes (IQR) – standard measure Mean (95%CI) – best reflects long lengths of stay Proportion meeting target for time of disposition (95%CI)

28. Admission from ED Observation Unit/SSU

Fieldname	<i>ssuadmit</i>
Definition	Number of patients who are admitted from ED observation / short stay units to any inpatient team
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Mandatory Continuously
Description	This number is anticipated to be less than 20% of patients admitted to an ED SSU or observation unit. ED observations units are for patients who should be able to be cared for by the ED, without inpatient team input. Inevitably some patients will need referral to inpatient teams, but a proportion over 20% needing this suggests the observation unit is accommodating patients who should have been admitted to an inpatient unit instead of the observation unit.
Includes	All patients under the care of an Emergency Medicine specialist who are admitted to an ED Short Stay ward who are subsequently admitted under an inpatient team.
Excludes	Patients under the care of an Emergency Medicine specialist in an ED Short Stay ward who are discharged directly from the ED Short Stay ward.
Expressed As	Numeric (Count)
Numerator	Number of ED Short Stay patients admitted to an inpatient ward (including inpatient short stay wards such as APU/ADU/AMU/ASU etc.)
Denominator	Number of ED Short Stay patients
Summary Statistic	Proportion of ED Short Stay patients who are then admitted to an inpatient ward %(95%CI)

29. Utilisation ED Observation Unit/SSU

Fieldname	<i>ssuutil</i>
Definition	Utilisation of the ED observation / short stay unit as a proportion of total ED presentations
Layout	NNNN (Number: 4 Characters)
Reporting Frequency	Discretionary Continuously
Description	Less than 20% is expected A high proportion (over 20%) of total ED patients using the observation unit suggests the unit might be being used inappropriately.
Expressed As	Numeric (Count)
Numerator	Number of ED patients admitted to an inpatient ward (including inpatient short stay wards such as APU/ADU/AMU/ASU etc.)
Denominator	Number of ED Short Stay patients
Summary Statistic	Proportion of ED patients who are admitted to an ED Short Stay ward %(95%CI)

1. Group NEDA. A Quality Framework and Suite of Quality Measures for the Emergency Department Phase of Acute Patient Care in New Zealand 2014 07/05/2014. Available from: <http://www.health.govt.nz/system/files/documents/publications/quality-framework-suite-of-quality-measures-for-ed.pdf>.
2. Harper, Jones, Ardagh, Drew. DATA DICTIONARY TO ASSIST WITH IMPLEMENTATION OF 'A QUALITY FRAMEWORK & SUITE OF QUALITY MEASURES FOR THE EMERGENCY DEPARTMENT PHASE OF ACUTE PATIENT CARE IN NEW ZEALAND'. Ministry of Health, 2015.