# Streaming and the use of Emergency Department Observation Units and Inpatient Assessment Units



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This paper was developed by the Ministry of Health’s Shorter Stays in Emergency Departments (ED) team to clarify the concept of streaming and provide advice on the different types of units that can be used to facilitate efficient acute patient care and flow. The contents of this paper were the subject of consultation with the Ministry’s National ED Advisory Group, the New Zealand Faculty of the Australasian College for Emergency Medicine, the College of Emergency Nurses New Zealand and the Internal Medicine Society of Australia and New Zealand.

## Streaming: the right people in the right place

Despite the range and variation in acute patients that present to hospital, there are a number of common elements in their journey such as triage, resuscitation/stabilisation, diagnostic assessment, initial treatment, ongoing care, and discharge/rehabilitation.

***Streaming*** is the concept of getting the patient to a place configured, equipped and staffed to best meet their needs at any particular point in that journey. The principles of streaming are:

* patients will have different needs at different stages in their journey
* ideally patients should go to a place configured, equipped and staffed to perform the tasks necessary to meet their needs at that time
* once these tasks are complete, the patient should move on to the next place for the next task.

Without streaming there is a mixing of tasks and patients with different needs in one place. This can compromise efficiency and patient safety and mean that none of the tasks are done as well as they might. Mixing patients under the care of different specialties also risks confusion regarding responsibility for patient care, errors or omissions in communication, delayed or inappropriate management, and inter-professional conflict.

The development of ED Observation Units and Inpatient Assessment Units is in keeping with the concept of streaming. These units are dedicated to a particular task (eg, a period of observation prior to discharge or medical inpatient team assessment), the patient goes there when they need that task and moves on (to a ward or home) when the task is complete.

The designation and use of such units and beds needs close control, including strong leadership, well defined criteria for admission, and an intended maximum length of stay. This is to limit any potential for ‘creep’ as function is reinterpreted, or becomes less clearly defined, resulting in the mixing of tasks and patients which is trying to be avoided.

## ED Observation Units

ED Observation Units are valuable for reasons of efficiency, patient comfort and patient safety. They allow prolonged ED care in a more conducive environment (on a bed rather than a stretcher, with less light and noise than the main ED), and provide an alternative to either the admission of patients to inpatient wards or the discharge of patients when it may be unsafe or inappropriate to do so (eg, elderly patients at night).

The ***key features*** of an ED Observation Unit are generally:

* to allow a short period of observation, further treatment, or further investigation by ED staff
* for patients who are perceived to be safe for discharge at the end of that period
* where there is usually no need, or an unlikely need, for input from inpatient staff/teams
* where the duration of stay is usually 6 to 8 hours, but up to a maximum of 24 hours. Certain pre-defined patient groups may remain in the ED observation unit beyond this time if they fulfil the criteria that the patient is best served by continuing to be cared for by emergency medicine specialists.

Governance of an ED Observation Unit, including resourcing, clinical management, standards, policies and procedures, should be with the ED. Other specialties and departments may contribute to clinical pathways and guidelines but do not have a governance role.

For the purposes of the Shorter Stays in ED health target, admission to an ED Observation Unit or bed stops the ED length of stay clock. To avoid any potential for confusion or manipulation of ‘observation’ status, patients and beds that can be legitimately designated as ‘observation’ and ‘stop the clock’ should have dedicated staffing, patients in beds rather than trolleys, and be located in a dedicated space. There may be some exceptions to this where the patient is receiving appropriate and ‘value-added’ care (eg, observation of an overdose patient in a monitored area). Such exceptions should be formally approved as departmental policy by the Clinical Director of the ED and should be discussed and agreed with the National Clinical Director of ED Services.

## When a patient returns to ED from an ED observation unit because of clinical deterioration, they should be recorded as starting a new episode of care in the ED.

## Inpatient Assessment Units

Inpatient Assessment Units go by a range of names: Medical Assessment and Planning Unit (MAPU), Surgical Assessment and Planning Unit (SAPU), Admission and Planning Unit (APU), Acute Medical Assessment Unit (AMAU), Acute Assessment Unit (AAU) etc. But in general they are designated hospital wards that are specifically staffed and equipped to receive acute inpatients (usually medical) for assessment, care and treatment for a designated period (usually 36-48 hours) prior to transfer to an inpatient ward or home, if appropriate.

Inpatient Assessment Units concentrate patient assessment and planning activities with the aim of streamlining care processes and length of stay. In doing so they also enhance the capacity of the ED by relieving the ED of non-critically ill patients and the assessment, admission and discharge processes associated with these patients. (Internal Medicine Society of Australia and New Zealand, *Position Statement: Standards for Medical Assessment and Planning Units in Public and Private Hospitals*, May 2006).

The ***key features*** of an Inpatient Assessment Unit are generally:

* they provide initial management (assessment, diagnostic workup, ‘clerking’ and initial treatment) of patients referred to specialty inpatient teams by a General Practitioner (GP), ED staff, or other clinicians
* they are usually ‘specialty’ specific – most often Acute General Medicine – but may be used by more than one specialty
* patients gain entry either via the ED or by direct referral from primary care, usually following consultation with the receiving clinician
* patients referred directly to an Inpatient Assessment Unit (eg, by a GP) will usually (but not always) be triaged in the ED to confirm the appropriateness of the transfer and ensure that they are well enough (not requiring resuscitation or stabilisation in the ED)
* the maximum duration of stay is usually intended to be between 24 and 48 hours, with patients either going home in that time, or transferring to a ward for ongoing care
* some units may have additional criteria for admission, such as low complexity patients, or patients likely to go home within 48 hours (‘short stay’).

Governance of an Inpatient Assessment Unit is usually similar to the governance of an inpatient ward of an inpatient specialty. Medical staff may be dedicated to the unit or they may be from the acute team of the day. While ED will contribute to defining process and quality control, particularly in relation to transfer of patients from the ED to the Inpatient Assessment Unit, the ED does not have a governance role.

Inpatient Assessment Units can offer opportunities for further innovations aimed at reducing hospital admissions, including acute/follow-up clinics, chest pain assessment, formal linkages between hospital and community care, etc.

For the purposes of the Shorter Stays in ED health target, GP referrals that are assessed at the ED triage desk and then directed to an Inpatient Assessment Unit without further ED intervention are excluded from the target altogether. For all other patients transferred from the ED, admission to an Inpatient Assessment Unit stops the ED length of stay clock. ‘ED intervention’ in this instance can encompass more detailed nursing assessment (over and above triage) and minor procedures such as analgesia or administration of intravenous fluids.

## Other Units

Short Stay is a broad term used to describe a number of different units, including short stay surgical units, inpatient units for acute patients who are expected to need a maximum of 24-48 hours in hospital, Assessment Units and Observation Units. The term ‘Short Stay’ does not describe a value adding function however, and often units with this name have a mixture of intended functions and do not perform well for the reasons previously described.

Clinical Decision Units (CDUs) are similar to ED Observation Units, but patients are usually admitted to the unit according to a well-defined, problem specific pathway.

Chest Pain Units are a CDU specifically for the diagnostic workup of patients with chest pain who are considered to be low risk for Acute Coronary Syndrome. These may be in, or associated with, the ED and under the ED’s governance, or may be associated with an inpatient specialist unit and under their governance.

Holding or Decant Wards, as the name implies, can be used to hold patients while waiting to access the area they should be in. While not preferable, on occasion this ‘holding’ function can be useful if it allows transfer of patients out of the ED to a more comfortable environment, pending capacity becoming available on the definitive ward as discharges occur later in the day.

## Smaller Hospitals

Ideally, an acute hospital will have an ED Observation Unit, an Inpatient Assessment Unit for Acute General Medicine, and possibly acute assessment facilities for General Surgery and other specialties. However, for smaller hospitals this may not be practical.

In cases where these beds are combined in a single space, it is important that they are separated, as much as possible, in practice. Suggested guidelines for doing so include:

* ring fence particular beds for observation, medical assessment, flex etc.
* define patient clinical and demographic criteria for admission to each type of bed
* have ED observation patients admitted under the ED team with a doctor on the floor clearly identified as responsible for the patient. Similarly, have medical assessment patients admitted under the Medical Team with a doctor clearly identified as responsible for the patient, with a means of contact defined
* define criteria for who responds to patient deterioration
* define criteria for situations of ED overload, when the unit needs to be cleared and patients admitted to the ward
* define performance expectations for all types of beds, including maximum length of stay thresholds, and expected discharge rates
* have a management structure which allows appropriate governance and quality control.

## Quality Control

## The intention of ED Observation and Inpatient Assessment Units is to improve the quality of care for patients by enhancing patient comfort, efficiency of care and patient safety. In March 2014, a Quality Framework and Suite of Quality Measures for the Emergency Department phase of acute patient care was introduced into New Zealand. Three Quality Measures were drafted specifically as performance measures for Emergency Department Observation Units:

* **Length of stay of the observation/short stay unit** (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 expected).

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.

* **Admission from unit to inpatient team percent** (less than 20% expected).

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.

* **Utilisation of unit as a percentage of total ED presentations** (expected to be less than 20%).

A high proportion (over 20%) of total ED patients using the observation unit suggests the unit might be being used inappropriately.

Although only one of the Quality Measures, ‘Admission from unit to inpatient team percent’ is mandatory, DHBs are encouraged to monitor the performance of all three measures continuously to ensure their ED Observation Units are functioning appropriately.

## DHBs should also apply appropriate performance measures to their Inpatient Assessment Units to ensure that improved quality of care is the driver of their use. Such measures could include:

* the percentage of patients who stay within the defined length of stay for the unit
* examination of reasons for patient stays beyond the defined length of stay
* discharge home rates (the percentage going home from an Inpatient Assessment Unit will vary depending on the admission criteria; if it is all acute medical patients, for example, then approximately 25-30% of patients will go home. However, if the admission criteria include only intended ‘short stay’ patients, then the expected discharge rate should be higher).

## Questions?

For questions or further advice on the contents of this paper, contact the Ministry of Health’s Shorter Stays in ED team: dawn.livesey@health.govt.nz