Ambulatory emergency care guide

Same day emergency care: clinical definition, patient selection and metrics

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Contents

1. Introduction 2
Background 2
2. Defining new AEC/SDEC activity 4
Patient selection for AEC/SDEC 4
What data fields do we require to analyse the flows? 5
Metrics 6
3. Patient selection and streaming for AEC services 7
Patient selection 7
Effective patient streaming 8
The patient selection process 8
Decision points 10
High volume pathways 11
Assessing patient flow to AEC/SDEC 11
4. Proposed AEC/SDEC metrics 12
AEC/SDEC models 12
Useful proposed AEC/SDEC metrics 15

1. Introduction

This document has been created by the Ambulatory Emergency Care Network as part of the Ambulatory Emergency Care Steering Group in collaboration with NHS Improvement, NHS England and the Acute Frailty Network as part of a series of publications supporting secondary care providers to deliver ambulatory emergency care (AEC)/same day emergency care (SDEC).

The need for acute care service re-design has never been as crucial as it is today. Delivering high quality, sustainable healthcare with rising patient demand across urgent and emergency care services means increasing admissions impact on emergency departments (ED), bed occupancy and increasing numbers of patients outlying across the hospital with inevitable negative impact on patient outcomes, increased length of stay and experience. Trusts need support to improve quality, effectiveness and productivity across same day emergency care and acute frailty care service provision.

Background

AEC/SDEC is a relatively new care model that has many parallels with evolution of the elective day case model. It aims to minimise and remove delays in the patient pathway allowing services to process emergency patients within the same day as an alternative to hospital admission. To understand the model and relevant clinical scenarios please read this guide in conjunction with the *Directory of Ambulatory Emergency Care for Adults; 6th edition 2018*.

AEC/SDEC definition

AEC/SDEC is the provision of same day emergency care for patients being considered for emergency admission.

Much of the growth in admitted non-elective activity is for patients who spend one to two days in hospital. Many of these patients could be safely and effectively managed using an AEC/SDEC approach aiming to deliver assessment, diagnosis and treatment plan on the same day.

2. Defining new AEC/SDEC activity

AEC/SDEC activity refers to the investigation, care and treatment of patients for whom admission to hospital would have been the default option in the absence of an AEC/SDEC service.

It may also include patients who have had a brief overnight stay and are discharged through AEC/SDEC the next day as well as patients followed up in AEC/SDEC after 'early supported' discharge. This activity is not covered in the clinical definition.

Patient selection for AEC/SDEC

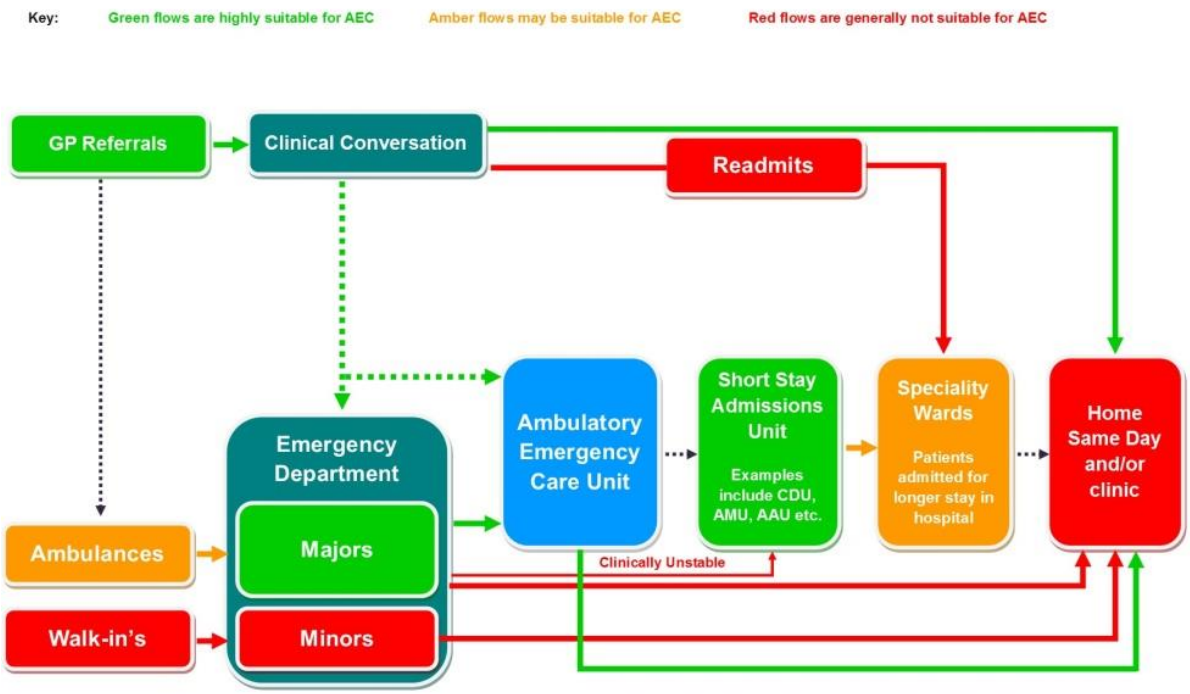
Patient selection is a key step in ensuring that those most likely to benefit are able to access AEC/SDEC services. Patient selection criteria are outlined on page 8 and explain processes where any stable patient requiring acute admission should be considered for AEC/SDEC.

It is important not to refer the 'wrong' patients to AEC/SDEC as this will block capacity and deny access to patients who would most benefit. The following groups should **not** be managed in an AEC/SDEC service;

- Type 2 and Type 3 ED attenders (minors). These patients should continue to receive their care in ED within the A&E 4-hour standard.
- Type 1 ED patients who will breach the A&E 4-hour standard but whose clinical care can be completed in the ED, or are awaiting ward admission
- clinically unstable patients,

The AEC/SDEC unit is **not** a discharge lounge, nor a 'overflow' unit for other services. Sending the wrong patients to AEC/SDEC will harm the system. With this in mind, robust gatekeeping processes are needed to ensure the right patients are streamed to the service. The green and amber sections in Figure 1 below illustrate core AEC/SDEC flow.

Figure 1: Core AEC/SDEC flow dependencies



What data fields do we require to analyse the flows?

It is essential to identify AEC/SDEC patients through a designated area code such as a ward code; this code must be separate from assessment unit codes.

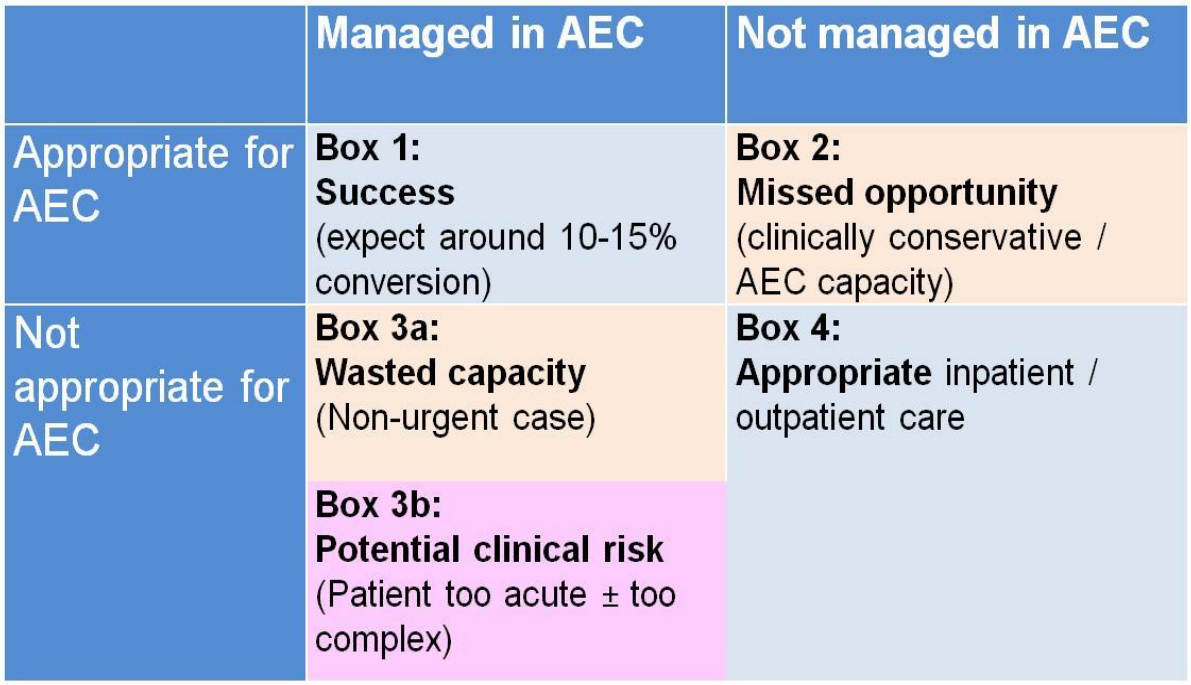
A combination of systems including the patient administration system and emergency unit information system will be needed to inform AEC/SDEC flow analysis. This should be maintained real time.

It is essential that patients are clearly identified within the data. For example, all AEC/SDEC patients that have been managed in AEC/SDEC care, those managed and discharged from ED (with or without a future clinic appointment) and those admitted to an assessment unit/specialty ward directly.

Regular review of clinical notes is recommended to highlight where patients ultimately required admission or could have been discharged directly from ED/CDU.

The matrix in Figure 2 provides a framework for the clinical notes review to check that AEC/SDEC is optimised and patients receive the right care in the right place.

Figure 2: Optimising use of the correct pathways



Metrics

Local agreement of appropriate process and outcome metrics for AEC/SDEC is essential and professional standards should be agreed with clinical teams and monitored to examine quality of service provision, for example, initial assessment within 15 minutes and clinical assessment within one hour of arrival.

AEC/SDEC is not an extension of the emergency department and the case mix and intention to discharge most patients mean the A&E four-hour standard does not apply.

The value of AEC/SDEC is streamlining clinical processes to be delivered same day in reducing admissions and reliance on hospital beds, thereby benefiting patients and hospitals. AEC/SDEC is for patients who would otherwise be considered for emergency admission, therefore, patients being referred to be seen in a clinic (for example, a hot clinic) or for planned day attendance (for example, a transfusion) would not be classified as AEC/SDEC.

3. Patient selection and streaming for AEC services

Patient selection

Patient selection for AEC/SDEC is a key step in providing a successful service. This process works best when senior clinicians discuss the clinical presentation supported by the ready availability of a National Early Warning Score (NEWS) and background clinical history.

Patient selection is based on:

- clinical stability: this is established by recording a NEWS score to support clinical discussion
- AEC/SDEC being the best place to meet the patient's required clinical needs
- AEC/SDEC staffing and facilities being appropriate to meet patient's functional needs and maintain their privacy and dignity.

To avoid inappropriate patient types being referred to AEC/SDEC, a clear process for patient selection and robust gatekeeping system is needed.

Patients who should not be managed in an AEC/SDEC service are:

- patients needing the facilities of a discharge lounge
- type 2 ED attenders (minors) and type 3 ED attenders who should continue to receive their care in ED within the four-hour A&E standard
- clinically unstable patients, for example, NEWS >5
- patients who will breach the four-hour A&E standard but whose clinical care does not require a move to another team.
- patients overflowing from another service that does not have the capacity to manage their care.

Effective patient streaming

Senior clinical decision-makers are essential for the rapid identification and streaming of patients to AEC/SDEC. They need to be present both in the AEC/SDEC service and in referring services.

These decision-makers will need:

- excellent clinical assessment skills
- detailed knowledge of the AEC/SDEC service resources and capabilities
- system knowledge of alternative pathways to admission and access methods
- rapid decision-making using limited clinical information
- high level risk management
- excellent interpersonal skills to challenge admission and referral decisions
- authority to act on their judgement.

The patient selection process

This can be broken down under the following four key questions.

Would the patient otherwise have been admitted?

This is the key question to establish patient suitability for AEC/SDEC as this should demonstrate a conversion from admitted care, and inappropriate transfer from ED, outpatient or primary care activity. The senior decision-maker has a key role in gatekeeping the service based on the criteria and must be able to communicate this in a positive way.

Is the patient clinically stable enough to be managed in AEC/SDEC?

Patient safety is paramount in the decision-making process. However, part of ensuring patient safety is also challenging the assumption that admitted care is the safest environment for the patient.

Among established AEC/SDEC services a consensus has developed around a National Early Warning Score (NEWS) of <4 being the appropriate acuity threshold

for patients being managed in the service. A clinical conversation is important to avoid over-reliance on a single NEWS reading.

The decision may be influenced by the care environment available, location of the unit in relation to ED, access to critical care services and the staffing model.

Some common clinical risk stratification tools to support clinical decision-making are listed below. The list is not exhaustive and they should be seen as adjuncts to the clinical decision-making process:

- deep vein thrombosis (DVT) – Wells
- pulmonary embolus (PE) – Wells, Hestia, PERC
- chest pain – TIMI risk score, HEART risk score
- pneumonia – CURB65
- acute upper gastrointestinal bleed – Glasgow-Blatchford
- syncope - San Francisco risk score.

Multiple clinical assessments and diagnostics before streaming to AEC/SDEC should be avoided to reduce ED transit time and delays in care: these can take place in the AEC/SDEC unit.

It should be expected that around 10% to 15% of patients referred to AEC/SDEC will go on to have a full admission once further clinical information is available and processes for this must be built into bed management plans.

Is the patient functionally capable of being managed through AEC/SDEC?

Patients with complex social and functional needs must not be excluded from AEC/SDEC care. This group are potentially very well served by AEC/SDEC and same day care can avoid lengthy admissions and deconditioning as well as disruption to any care packages. Using AEC/SDEC rather than admission allows community-based care to continue without interruption when the patient needs a period of emergency assessment and intervention in secondary care. There are opportunities to use the flexibility of AEC/SDEC to manage frail older people in a way that is planned, personal and much less distressing for the person concerned.

Trusts should ensure that the care environment, staffing levels, disabled access and manual handling provision support the needs of people with physical, mental and learning difficulties in a way that promotes their privacy and dignity.

Is there an alternative non-admitted pathway that could more appropriately manage the patient?

Streaming to AEC/SDEC must avoid multiple assessment and duplication, for example in ED, outpatients and primary care, as this will waste capacity and is likely to increase cost in the system. This is partly about acuity and complexity thresholds but also about knowledge of non-admitted pathways available in the system. There should be a system-level directory of services available, including access methods and resources, to enhance decision making. For example, a community falls service would be a suitable alternative non-admitted pathway that provides the right service and avoids a visit to hospital.

Decision points

The decision to stream to AEC/SDEC needs to take place at the start of the patient journey to maximise AEC/SDEC and reduce duplication of assessments and handoffs. This can be achieved by:

- early active identification of potential AEC/SDEC patients at initial assessment by referral sources using the above criteria
- setting up a 'pull' mechanism where the AEC/SDEC team actively attend ED to identify potential patients using the above criteria
- designing a process for clinical conversations between senior decision-makers at the point of referral.

Good practice example

When the **Royal Free Hospital** first opened its doors to the AEC unit they found the Glasgow Admission Prediction (GAP) score a useful tool alongside assessment in ED triage to select patients who could be transferred directly to the AEC unit because of its ease of use and accuracy of prediction. Other scoring systems such as the AMB score referenced in the Royal College of Physicians *Acute care toolkit 10* are similarly applicable.

High volume pathways

There are opportunities for trusts to identify a small number of presentations with high volume AEC/SDEC flows; for example, suspected PE, low risk cardiac sounding chest pain and right iliac fossa pain. These clinical scenarios can be highlighted as a priority for management in AEC/SDEC and processes developed to support rapid early streaming.

Developing pathways can be very useful for high volume clinical scenarios. This may vary from site to site but should cover the top five to ten presentations and empower earlier decision-making by more junior clinical staff, streamlining flows and reducing waste.

There is enormous clinical variation in selection of patients for AEC/SDEC: well-designed clinical pathways, agreed between teams, can be used to minimise unwarranted clinical variation.

Assessing patient flow to AEC/SDEC

Data should be monitored closely to ensure appropriate thresholds for AEC/SDEC are maintained and opportunities for system learning maximised.

Using the clinical questions described above, we recommend systems test processes, using a plan/develop/study/act (PDSA) approach. When undertaking any test of change it is important to fully understand the impact on patient flow achieved by maximising AEC/SDEC. The matrix in Figure 2 can help when retrospectively examining a sample of AEC/SDEC and non-elective admitted activity. Analysis of ICD10 data against clinical scenarios listed in the *Ambulatory Emergency Care Directory for Adults* is a very useful exercise for understanding the potential for a shift of admitted activity >1 night to AEC/SDEC management.

4. Proposed AEC/SDEC metrics

The Institute for Health Improvement model for improvement is a simple powerful tool for accelerating improvement. It is widely used across the NHS and demonstrates that in the context of improvement, measurement focused on understanding whether a change is helping to achieve a specific aim. This in turn, implies that there is no 'one-size fits all' metric or even set of metrics for every site in every situation.

That said, a systems view suggests that we could, at a high level, have a mix of process/activity measures, outcome/impact measures and balancing measures that might be suitable for most AEC/SDEC units. The measures outlined below have already been widely used to good effect across the AEC Network. The top three suggested measures are:

- **process/activity measure:** the number of new non-elective presentations seen and treated in AEC/SDEC
- **impact measure**: the number of new non-elective presentations of patients who convert to an admission of at least one night
- **balancing measure:** the number of unplanned re-presentations of patients who had been managed by the AEC/SDEC unit within the previous 7 days.

We strongly recommend AEC/SDEC present these data items as daily run charts (or, better, statistical process control charts) with appropriate explanation for special cause events and annotate the implementation of any changes where there is an improvement in the data.

AEC/SDEC models

To be useful, any proposed AEC/SDEC metrics need to give insight into the way that AEC/SDEC units operate and how patients flow through the system. They should take into account and reflect that there are broadly two flow models into an AEC/SDEC unit: one where GP patients go to ED first and one where they are referred straight to AEC/SDEC. The referral straight to AEC/SDEC is much

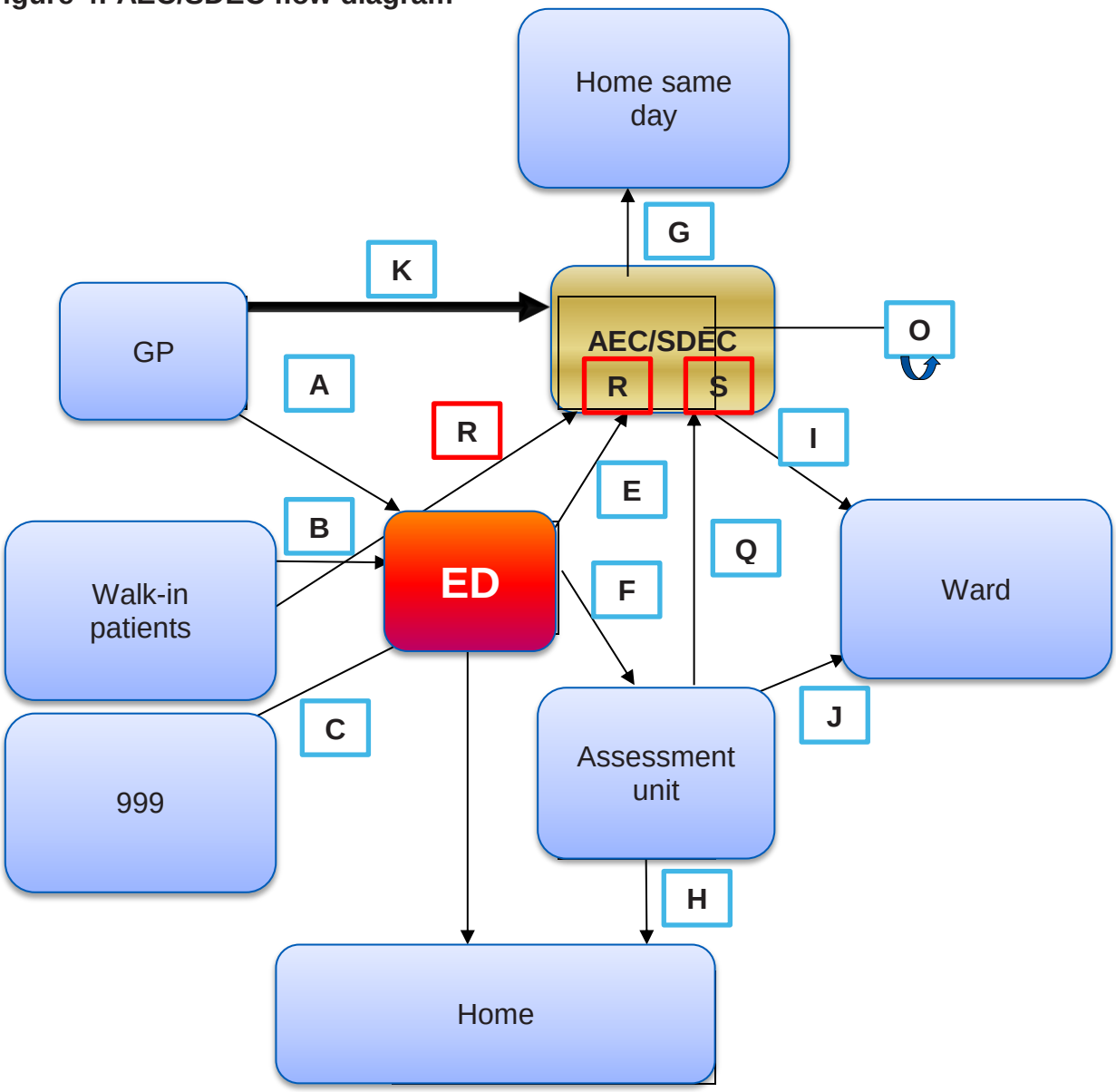
preferred, because it reduces the number of steps in the patient journey and the time from referral to treatment with consequent improvement in patient experience

It is important when interpreting any AEC/SDEC metrics to understand broadly which flow model is in place because some metrics may well be influenced by this. For example, the proportion of new patients seen in AEC/SDEC who convert to an overnight admission may be different

We know there is widespread variation in the means used to record activity in AEC/SDEC units, with some coding a new presentation as ‘inpatient’ and others ‘outpatient’. This requires a careful consideration when requesting AEC/SDEC data activity which may be best thought of as ‘number of new AEC/SDEC patients’ or ‘number of new AEC/SDEC presentations’ rather than number of admissions to AEC/SDEC.

Figure 4 illustrates the preferred flow for AEC/SDEC.

Figure 4: AEC/SDEC flow diagram



This model is a schematic representation of emergency patient flow. Organisations may wish to collect data/monitor to ensure an optimal emergency care model is delivered.

Useful proposed AEC/SDEC metrics

The following metrics may be useful for anyone seeking to greater insight into the operation of existing AEC/SDEC units.

Any metrics used should be presented as a return of daily data from each site.

A. The number of new walk-in patients who presented at ED

B. The number of new GP referrals that presented at ED

C. The number of new ambulance arrivals that presented at ED

D. The number of new ED presentations discharged same day

E. The number of new ED presentations referred to AEC/SDEC

F. The number of new ED presentations referred to assessment units

G. The number of new presentations to AEC/SDEC sent home that day

H. The number of new presentations to assessment units sent home that day

I. The number of new presentations to AEC/SDEC admitted to a ward for an overnight stay of at least one night

J. The number of new presentations to assessment units admitted to a ward for an overnight stay of at least one night

K. The number of new presentations to AEC/SDEC from GP referrals

L. An indication of whether the site generally takes GP referrals direct to AEC/SDEC or not - this is the only data item which is not a daily 'count'

M. The number of new non-elective presentations seen and treated in AEC/SDEC

N. The number of new non-elective presentations of patients who convert to an admission of at least one night

O. The number of unplanned re-presentations of patients who had been managed by the AEC/SDEC unit within the previous seven days

P. The number of new AEC/SDEC patients with a length of stay of less than two hours (maybe an indicator of potentially wasted capacity), eg inappropriate moves from ED (and see the matrix following - possibly indicative of box 3a in the matrix)

Q. The number of new assessment unit presentations referred to AEC/SDEC

R. The number of new presentations to AEC/SDEC from 999

S. Number of patients referred to AEC/SDEC from ED more than two hours after their arrival at ED (may need audit rather than regular reporting).

For more information about AEC/SDEC go to:
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