NHS
Ambulatory Emergency Care Network

Measurement Factsheets

#1 – Measuring the Impact of AEC

Background and context to this fact sheet

A common question amongst people starting out on their AEC journey is 'what should we measure so that we can demonstrate the impact we are having?' This factsheet gives some guidance on what are the most common areas of measurement activity your organisation ought to develop to be able to demonstrate the impact which your AEC unit is having. Each area of activity is supported with some suggested measurements.

The impact of AEC is diverse and therefore needs to be demonstrated using a wide range of measures. Guidance has already been provided in the ***AEC – Guide to Measurement for Improvement*** and this is essential reading for anyone developing useful measures for their AEC Unit.

Through the AEC Network, we have learnt that demonstrating the impact of AEC is not straightforward and how AEC activity is categorised and coded varies hugely. This makes it difficult to give straightforward advise on 'what and how to measure' because each site will need to carefully consider its own local situation and approach to data collection rather than simply adopt a conveniently pre-packaged national standard approach to measurement around AEC.

Issues to consider

Focus on the benefits you expect to see

The best way to ensure that you are able to demonstrate the impact of AEC is to collect data which will enable you to demonstrate improvements. The most commonly cited examples across the AEC Network are:

- Reduction in emergency bed days used
- Reduction in patients admitted to hospital for >1 night
- Improved experience for patients
- Improved staff experience
- Improved quality of care
- Improved safety
- Improvement in patient flow
- Improved ambulance turnaround
- Reduction in readmissions
- Reduction in incidents in emergency care

Case studies are available on the AEC Network website giving examples of sites which have experienced these benefits from AEC.

Don't forget the operational data you will also need

In addition to demonstrating impact and benefits, you will need operational measures to understand whether the unit runs smoothly and be able to understand and manage processes and activities. Further guidance on this aspect is given in ***Factsheet #4 – Operational Measurements for AEC Units.***

Don't reinvent the wheel

Measurement is not a new concept for the NHS. As a reminder, you need a mix of outcome, process and balancing measures to reflect the impact on the patient and show the end result of your improvement work. Choose an outcome measure that most closely relates to your aim. If you want to reduce bed days then a focus on this rather than admissions would be sensible. Beware that in making changes, you might cause other parts of the unscheduled care system to change too. Once example might be that A&E now discharges fewer patients directly, they send them to the AEC Unit instead. What might you measure to guard against such eventualities?

Remember that you need data before and after

In order to demonstrate the impact of any change, you will need data and measurement from before the change takes place and after the change. You need data to understand where you are **now**, so that you can plan your changes. And in the future, you will need data which shows where you **were**, so that you can see what the impact of those changes has been and hopefully demonstrate the benefit. Your baseline is not always static – your historic performance might have been on an upward trend. Flattening previous long term trend growth is a success just as much as reducing from a flat baseline.

Recommendation

We strongly recommend that in order to be able to demonstrate the impact and benefits of your AEC activity, you choose at least one measurement from each of the six listed below:

Anticipated benefit: Reduction in emergency bed days used

Total emergency bed day usage in your organisation should decrease as a result of AEC. You will need data from before and after the opening of you AEC unit to be able to clearly understand and demonstrate the difference. It would be advisable to be able to break bed day usage down so that you understand the position for your selected patient groups and/or conditions.

Anticipated Benefit: Reduction in patients admitted to hospital for >1 night

This is linked to the previous benefit and associated measures. If the number of patients admitted to hospital decreases, the number of emergency bed days used will also reduce. Possible related measures include:

- Number of unplanned (non-elective) admissions
- Number of people with condition x and the percentage of them now treated as ambulatory compared with before AEC when they would have been admitted
- Number of patients seen in a fixed number of bed days (also known as turnover)
- Average length of stay
- Standard bed utilisation statistics
- Number of admissions of 1-2 days
- Percentage of all non-elective patients treated as 0-day LOS
- Percentage of patients who receive same day emergency care where the intention was to provide them with same day emergency care
- Number of medical outliers

In the case of number of admissions of 1-2 days, it might be helpful to break this down so that you understand the position for your selected patient groups and/or conditions.

Anticipated benefit: Improved quality for patients

This message is a key element of the patient informational video available on the AEC Network website – a faster, better service so patients get better, faster. Possible measures include:

- NHS Friends and Family test score or equivalent patient indicator
- Number of complaints
- Number of thank you letters
- Number of patients discharged the same day as a percentage of total patients
- Waiting times in the Emergency Department
- Percentage of patients seen within 4 hours in the Emergency Department
- Time from arrival in hospital to seeing a specialist/consultant
- Qualitative measures derived from any Experience Based Design work

Anticipated Benefit: Improved staff experience

Adoption of AEC has been linked to an improvement in staff experience too. Possible measures include:

- Staff experience survey
- Vacancy rates
- Staff availability/sickness rate
- Mandatory training levels

Anticipated Benefit: Improved safety

The key elements of safety can be combined with the quality benefits of AEC, for example a reduction in readmissions and in incidents in emergency care, both of which straddle the safety and quality domains. Possible measures include:

- Numbers of readmissions within 7 or 30 days
- Number of safety related incidents in emergency care
- Standard infection control measures
- Number of adverse incidents
- Number of falls within ED/AEC
- Number of pressure ulcers
- VTE assessments
- Standard measures of mortality e.g. mortality within 30 days
- Time from last incidence of complication/harm within AEC
- Existing clinical quality reports within your organisation

Anticipated Benefit: Improvement in patient flow

Possible measures include:

- Ambulance turnaround times
- Time related measures of your processes, e.g. time from admission to first appropriate diagnostic
- Time in the system/length of stay in the unit
- 'Flowerview' diagrams
- Conversation rate from ED attendance to emergency admission
- Numbers of people who leave before being seen
- Diagnostic request times