This guide is an aide for operational managers to improve the management and efficiency of AEC units. This should be read in conjunction with the following documents:

Clinical guidance developed with the Royal College of Physicians (RCP Toolkit 10). This looks at criteria for selecting patients for AEC, training, AEC resources and clinical governance, and will complement this operational guide.

The Directory of Ambulatory Emergency Care (2016) that sets out the underlying principles of AEC and details 53 clinical scenarios that are appropriate to be managed in an AEC service. This resource also provides HRG and ICD10 coding per clinical scenario that will assist organisations in analysing their current activity and potential for AEC.
Introduction

The underlying principle of Ambulatory Emergency Care (AEC) is that a significant proportion of adult patients requiring emergency care can be managed safely and appropriately on the same day, either without admission to a hospital bed at all, or by admission for only a number of hours. This is achieved by streamlining access to diagnostic services and reorganising the working patterns of emergency care clinicians to be able to provide early senior decision making and prompt treatment. There is also a need for immediate access to support services in the community to provide robust safety net systems and optimise integrated care. This is particularly important for managing frail older people on an AEC pathway.

Over recent years AEC has become an accepted and recognised treatment modality and has led to the Royal College of Physicians producing the Acute care toolkit 10: Ambulatory Emergency Care (2014) which lists the principles needed within a system to maximise AEC. NHS England recognises the need to make AEC services an integral part of emergency care. With this in mind acute hospitals were required to have AEC services in place by November 2016. Increased adoption in acute medicine has led to developments in surgery and within subspecialties leading to a mind shift in patient care and a social movement to convert as much emergency care as possible to same day care.
AEC: Operational guide

This guide is designed to assist managers and AEC teams adopt effective operational policies and procedures to maximise AEC services.

AEC, or ‘same day emergency care’ requires a whole system approach that includes both primary and secondary care. This ensures that patients who are assessed as appropriate for AEC are diagnosed and treated on the same day. The patient is then sent home with ongoing clinical follow-up as required. Ideally, AEC should sit between A&E and assessment units, providing a portal where clinically appropriate patients are assessed before decisions to admit are made. The focus of AEC is to deliver same day care to approximately one third of the non-elective hospital take, reducing the pressure on hospital beds and providing more timely care for patients.

Issues preventing systems from maximising AEC are:

- Poor and/or late identification of patients appropriate to be managed via AEC.
- Inadequate processes for streaming patients to AEC promptly and directly from the point of referral.
- Inadequate gatekeeping to ensure correct patients receive AEC management
- A lack of an ‘out of hours’ referral process to prevent default to admission when the unit is closed.
- Insufficient use of senior clinical decision makers in the delivery of care.
- Inappropriate and inefficient use of units, for example treating patients who could be cared for in primary care, the Emergency Department or outpatients.
- Clinicians’ preferences for inpatient management and risk aversion to AEC.
- Failure to recognise AEC as a priority.

Some of these issues can be tackled through improving processes, but others are more difficult and require a change in culture. Agreeing a Vision and strategy for AEC will help with culture change.
Patient selection

Selecting patients for AEC can be facilitated through a clear, shared aim and the use of simple rules. There are four main groups of AEC activity:

i. Diagnostic exclusion group
There are a number of patient presentations that require immediate specialist assessment and diagnostics in order to rule out a serious emergent pathology. Where this assessment process will necessarily take longer than can be managed in the Emergency Department, AEC should be considered as the destination for these patients as early in their journey as possible. It should be noted that some patients being managed in this way will be found to have the diagnosis being questioned or another serious pathology that requires inpatient management. Conversion to admission should not be seen as a failure and systems should be in place to manage a flow from AEC to inpatient areas.

Common examples of these presentations include:
Ruling out +/- treatment of non-massive pulmonary embolism, where appropriate risk assessment strategies are in place and the introduction of low molecular weight heparin has made AEC a safe and viable strategy for patient management. This allows admission to be avoided, especially in those patients arriving out of hours where advanced radiology is not available but clinical condition does not warrant an immediate scanning response.

Low risk cardiac chest pain - where an ECG does not demonstrate an acute event, the use of serial cardiac enzyme testing can rule out acute coronary syndrome. The time intervals used for assays have now reduced to a point where management without overnight stay is achievable for the majority of patients. Many of these assays are also available as point of care tests.

ii. Low risk stratification group
A group of patients exist where the diagnosis is evident at presentation but the level of response required can be decided by a period of further assessment. Again, this is likely to produce an inpatient flow for some high-risk patients and this should be expected. This approach should expedite further appropriate care from specialist services but must not be used to circumvent existing urgent referral pathways.

A common example of this approach is:
Low Blatchford/Rockall score gastrointestinal bleeding. These patients may require further examination/diagnostics and a degree of optimisation prior to endoscopy via a semi elective route.

iii. Specific procedural group
This group consists of patients who require an immediate invasive procedure for diagnosis or symptom management that can be undertaken in the AEC environment. This group requires careful scrutiny so as not to attract patients with a chronic condition that have an ongoing and predictable need for a given procedure, as these should continue to be managed via an elective route. It is also important to differentiate those patients who have become an emergency because of poor chronic management plans/system capability versus clinical need for a new/acute exacerbation that could not be prevented. AEC must not be used to make up for deficiencies of provision in the wider system.

Examples include:
Drainage of pleural effusion.
Drainage of abdominal ascites.

iv. Infrastructural group
Finally, there is a cohort of patients that have baseline complex care needs for whom management within the Emergency Department is likely to be distressing and protracted and likely to result in an unnecessary admission. Equally, the emergent nature of their new/exacerbated issue makes management via standard outpatient services difficult to organise and compounded by accessibility problems. There is a huge opportunity in future AEC models for these patients to be managed in community and home based solutions.

Examples include:
Nursing home patients.
Patients with significant learning difficulties.
The most effective approach to patient selection is to plan for all potential patients for admission to be managed via AEC unless clinically unstable or unconscious. This approach has been highly successful in the development of day surgery and has transformed the care of that cohort of patients. In applying this approach to AEC, it is vital that the focus remains on the cohort of patients that were traditionally being admitted. AEC should not generate new activity and should be able to demonstrate a clear shift from one to three-day length of stay to zero day length of stay.

There are four simple questions that can be applied to patient selection for AEC:

1. **Is the patient clinically stable enough to be managed in the AEC environment?**
   This will be decided by considering the NEWS of the patient and any condition specific risk assessments that may be relevant. The resources available in AEC will affect the NEWS threshold that can be managed and so organisations should seek to optimise these for handling acuity up to a NEWS of <=4/5.

2. **Is the patient functionally capable of being managed in the AEC environment while maintaining privacy and dignity?**
   The physical construction of the unit, available manual handling equipment and staffing levels may all impact on the complexity of patient that can be accommodated. The frail and those with physical or cognitive impairments should not be excluded from accessing AEC services. In fact, they represent sub-groups that are likely to gain additional benefit from avoiding hospital admission and the resulting disruption to their existing community-based care and personal routine.

3. **Would this patient have been admitted to hospital if AEC did not exist?**
   This is the key question to ensure there is no new activity generated by implementing AEC. Establishing this baseline can be challenging for some organisations especially where AEC has evolved from other similar services such as Medical Day Units or GP Assessment areas. It is important to be able to distinguish those patients that would have been admitted because of deficiencies in the system versus those with a clinical need. Where other parts of the system need support or investment to improve performance it should be provided there rather than AEC absorbing overspill.

4. **Can the patient’s needs be better met by another outpatient or community based service?**
   In order to answer this question the decision maker undertaking patient selection must have a detailed knowledge of the local system/directory of service and be empowered to access these alternatives without obstruction. There are strands of AEC care that are now commonly provided in community settings e.g. cellulitis and DVT management and this is to be encouraged in order for secondary care based AEC to focus on more complex and acute patients.

There are opportunities throughout the patient journey for all levels of clinician to begin discussion of AEC as a treatment option. The key point of patient selection should be based on a clinical conversation with a senior AEC clinician. This person should have the seniority, knowledge and skills to stream the right patients into AEC and knowledge of alternatives to admission as needed. This gate keeping is essential to both manage risk and ensure that the threshold for AEC is set at a level that captures patients that would otherwise have been admitted whilst adding value to their care. Wherever possible this senior decision maker should be the single point of access for all internal and external referrals for admission/ AEC in order to maximise appropriate streaming.

Patients should be reassured that in the unlikely event that they are not ready to go home on the day or deteriorate after discharge, there is a clear safety net plan in place and that if reassessment is required their clinical record will be available.
AEC activity

This section will help trusts look at their AEC activity and ensure that the ‘right patients’ are seen in their AEC units.

AEC rates

Experience from the AEC Network suggests that 30% of the non-elective take can be converted to AEC. There is increasing interest and implementation of surgical AEC models and early experience suggests similar or higher rates of AEC conversion are possible. The Directory of AEC provides suggested achievable rates for specific clinical scenarios which trusts and commissioners may find helpful in discussions. It is important to recognise that these are guidance figures only and not targets.

Accommodation

Appropriate accommodation and facilities should be made available for AEC. Accommodation needs with an AEC unit are common to all.

The ideal is a self-contained AEC unit, which is closely located to A&E and the medical/surgical assessment units, with easy access to Radiology and allows direct entry of ambulance transported patients.

Another possibility is that the AEC unit is co-located to the medical and surgical assessment units. The risks inherent in these models are that the pressure on inpatient beds will usually make AEC the poor relation in any sharing agreement, and may result in bedding of the AEC area leading to a block in the system. Staff in shared models will tend to gravitate towards the sicker more complex patients in the admitted area leaving AEC understaffed and unable to provide the seniority and pace required for successful AEC operation. Even where staffing is rostered separately, there is a tendency to use AEC staff to backfill gaps in the admitted rota as they arise again denuding AEC provision.

Finally, such shared models can reinforce an admit to assess mind-set simply because admission beds are present. To ensure this arrangement works well, ring-fenced staffing rota’s are needed and clear escalation policies that prevent the AEC area being used for bedded patients.

The development of secondary community-based AEC services is desirable and represents opportunities to manage less acute/complex patients closer to home and free up capacity in secondary care for more complex patients. Consideration needs to be given in such units for access to timely diagnostics, as this is a key dependency to AEC delivery, without producing delays or additional steps for the patient. A robust method of streaming to community versus acute-based services must be in place to avoid predictable transfers and wasted capacity.
Facilities

Facilities will vary according to the needs of different hospitals but the following principle components should be considered.

**Car parking/ambulance access**

AEC patients need access to car parking, or at least a short-stay drop off and pick up point immediately adjacent to the unit or ward. Likewise, provision for easy ambulance access direct to AEC, should be in place to avoid unnecessary transit through other clinical areas.

**Reception**

Patients and relatives need adequate seating while waiting for assessment, admission and discharge. Receptionists need facilities to admit and discharge patients. The waiting area is key to efficient AEC operation as it allows for ongoing flow of patients ensuring that they are only in a clinical space while an intervention or assessment is undertaken. The patient then returns/remains in the waiting area until the next stage of their care. For some patients there may be extended periods of waiting that are unavoidable, and the waiting area should provide a suitable level of comfort with access to entertainment and refreshment. Consideration should be given to allowing appropriate stable patients to leave the unit until the next stage of their care is due and this can be facilitated by the use of mobile phones or patient pagers.

**Initial assessment**

An allocated space should be available for the initial assessment of arriving patients. Patients attending AEC may have already had a clinical assessment in another unit or community facility. With this in mind the arrival assessment should be rapid and involve a brief confirmation of the patients suitability for AEC. Initial diagnostic procedures are essential to the patient’s care, and to guidance for patients on the likely duration and format of their stay. Equipment for vital signs, ECG, phlebotomy and point of care testing will be required.

**Clinician workstations**

Routine administrative tasks should be carried out as close to the care environment as possible. Adequate IT will be needed to allow hot desking for clinicians. Systems should allow access to patient records, pathology and radiology reporting. Where space is constrained, trusts should consider mobile IT solutions.

**Consultation rooms**

A private space is required to preserve privacy and dignity during examinations and health histories, as well as discussing diagnoses. This area should be viewed as a space to complete this task and then move the patient out. It is not intended as a holding area for ongoing treatment or waiting.

**Procedure rooms**

A designated clean procedure room should be available and equipped for interventions such as lumbar puncture, drain insertion, joint aspirations and incision and drainage of minor abscesses. Again, this space should be utilised for the procedure with the patient allowed to recover in the seated or trolley area as appropriate. Where space is constrained, procedure and consultation rooms may be interchangeable but consideration should be given to infection control needs for the procedures undertaken.

**Trolley accommodation**

In order to accommodate more acute and complex patients there must be the provision for patients to lay down as needed. The use of beds for this purpose or designs that allow for beds should be avoided as this increases the risk of AEC being used as an escalation area. The need for the patient to lay down should be part of an ongoing dynamic assessment, and mobilisation should be encouraged as soon as appropriate. This is important in order to reinforce the goal of same day discharge as well as maximise flow. Trolley accommodation will allow patients whose baseline mobility is bedbound to benefit from AEC services.

**Seated area**

Reclining chairs provide a treatment space for patients who do not need trolleys but are undergoing treatments such as infusion, or who need continual direct observation. They also provide step-down facilities for trolley patients prior to discharge and those whose baseline mobility is unsuitable for the waiting area. Where patients are not undergoing active treatment and do not require continual direct observation they should be encouraged to use the waiting area or where appropriate leave the unit and return when the next stage of care is due.
Hours of operation

NHS England states that AEC services should be available 12 hours a day, seven days a week. Trusts should aim to match their AEC capacity with local non-elective demand and GP referral patterns. In general, shifting the 12-hour period to a later start and finish e.g. 10:00-22:00 rather than a more traditional 08:00-20:00 allows for greater numbers of patients to be managed via AEC as this provides better cover for the afternoon peak in demand that is seen nationally. Consideration should be given to the dependencies on Pathology and Radiology that AEC presents and these support services, as well as others such as therapies and patient transport, will need to be configured to support the full hours of AEC provision.

Management

Every trust should appoint a dedicated clinical lead for AEC. The clinical lead should have paid sessional time to provide leadership for the development of AEC services, ensuring that consistent policies and guidelines are adopted across all specialties. The clinical lead will drive innovation and development of AEC practice, as well as clinical governance, with particular emphasis on clinical risk management and clinical audit.

A Senior Manager should oversee the development of AEC services and a service manager/senior nurse for AEC should be part of the operational team. Where the manager is not a nurse then the trust should appoint a senior nurse to support the clinical director in developing clinical protocols/guidelines, leading nursing practice and development. The AEC manager/senior nurse will be responsible for the day-to-day management of the unit and will contribute to the strategic development of services.

An administrator will be required to support the clinical director and manager/senior nurse, and will be responsible for efficient management of admissions and lists for returning patients.

An operational group should oversee ongoing development of the service to ensure AEC is being maximised as much as possible and to provide support when issues arise. This may be made up of representatives from medicine, ED, surgery, nursing, community services, GPs, hospital management, finance, audit, diagnostics, and other parties that are involved in patient care either prior to, during, or after time spent on the AEC unit. AEC should report through the trust board to the local A&E delivery board.
AEC policies and processes

Clear policies and protocols are needed to ensure the smooth running of the unit. These should include policies to ensure:

- selection of patients is optimal and consistent;
- inappropriate referrals are reviewed and reported back to the referrer to facilitate learning and improvement;
- early access to a senior decision maker and senior delivered care is an inherent part of the patient journey;
- concordance with agreed local and national KPIs for the service. A similar time standard to ED should be used for initial assessment, time to senior decision maker, time to diagnostics and time to definitive management plan;
- efficient processing of patient throughout their AEC stay and identification of rate limiting steps;
- efficient disposition of patients to the appropriate admission/follow on service at the earliest opportunity. Consideration should be given to the management of a potential admission stream from AEC alongside ED; and
- clarity of expected start and finish times for staff and processes in place so that patients and staff are able to manage within this.

The Royal College of Physicians has produced Acute care toolkit 10 for implementing AEC which provides a useful set of principles that trusts should benchmark themselves against.

Monitoring of AEC performance should be agreed and carried out through defined local systems and results available preferably on a weekly basis for the team to discuss and take action as needed.

Inpatient admissions

When complications occur or clinical assessment demonstrates the need for inpatient care, procedures need to be in place to deal with an unplanned admission stream of AEC patients. Unplanned admissions must be recorded and audited to differentiate between clinical and logistical issues, as well as to understand the appropriateness of the initial referral. Community-based AEC units that may not be on an acute hospital site must have agreed arrangements to transfer unplanned stay-in patients to inpatient care. AEC units should not be expected to support any inpatient care.
Workforce

A wide range of staff is involved in AEC and it is recognised that they may need to be supported in changing some of their working practices to allow AEC rates to increase.

Teams usually include:

- Consultant Medics/Acute Care Physicians and Surgeons.
- Consultant anaesthetists where a surgical list is part of the AEC service.
- Trainee grade doctors – AEC is an excellent learning environment for this level of doctor but the emphasis should be on senior delivered care.
- Advanced Nurse Practitioners/Advanced Care Practitioners.
- Nursing staff for assessment, care delivery, and discharge home.
- Therapies support – this may be required full time where frail patients are included in the AEC model, or via formalised shared access where there is less demand.
- Administrative, housekeeping and other members of the team.

The clinical team should be developed to provide a multi-skilled workforce who can perform most tasks within the AEC unit. Providing a well-trained, flexible, highly efficient and effective workforce. The benefits of multi-skilling are:

- Staff appreciate and understand each other’s roles and responsibilities, which leads to a more cohesive and motivated team.
- Investment in training and development enables staff to develop their competencies and make a fuller contribution to the service. This leads to increased job satisfaction and retention. Staff will stay longer in post if the job is interesting and variable, and offers opportunities for role expansion.
- Staff are better able to inform and educate patients and carers if they are familiar with the entire patient experience.

Trusts should assist all teams to use to AEC as default. They should provide (where required) specific training for the Consultant Medic/Acute Care Physician on AEC protocols and risk assessments and where surgery is included as part of the model the surgeon and anaesthetist should have specific training in day surgery techniques and the advantages to the patients.
Opportunities to see and experience different models of AEC on a first-hand basis.

Change job planning and scheduling to promote AEC, for example moving operating times later in the day and maximising functional AEC usage during times of surge and bed pressure rather than using AEC as inpatient bed escalation.

Structuring on-call lists so that AEC activity is visible across the organisation.

Lead clinicians and Medical Directors and the Executive team will need to influence change where resistance occurs, especially in key areas such as diagnostics support, access to specialist opinion and bed management.

Nursing staff and Allied Health Professionals

Nursing staff and support workers play an essential role in the AEC unit. Staff should receive appropriate induction on appointment to the AEC unit and continuing professional development through competency-based education and training. Competencies will need to enable staff to gain generic competencies in all areas of care, as well as core specialist competencies. This will provide a multi-skilled, flexible workforce to support the AEC teams.

AEC attracts and retains highly motivated nursing staff. The role is complex and demands the use of a potentially wider variety of skills than are required in other medical or surgical nursing specialties. The importance and use of clinical skill mix promotes efficiency within the unit and provides staff with significant variety within their role. The Society of Acute Medicine has published a guide to skill mix in Acute Medical Units and these principles can also be applied to AEC. The British Association of Day Surgery has produced similar guidance for day surgery units that will also help trusts in their work planning.

The AEC environment is an opportunity to explore options for workforce redesign and role expansion and extension for nurses and support workers. The role of Nursing Associates has been developed within a number AEC teams, and there are many benefits to including Advanced Practice roles for nurses, therapists and paramedics. There is also increasing implementation of Consultant nurse roles.

Clinical Nurse Specialists often follow the patient through AEC or will visit patients whilst in the unit. Specialist nurses are an experienced and knowledgeable resource and should share their clinical knowledge and expertise with the wider clinical team.

Pharmacists play an important role in AEC units as pharmacy advisor and educator for patients and staff. Their expertise should be sought regarding the development of protocols for discharge medication and pain relieving regimes to ensure that patients are discharged with effective and adequate medication supplies.

Physiotherapists and occupational therapists may come to see patients in the AEC unit. They should advise AEC staff, patients and their carers about mobilisation techniques e.g. stairs practice, use of crutches as well as setting up community support.

Healthcare assistants or support workers are essential members of the team and investment in their development will result in a well-supported clinical team and better experiences for patients. Support workers will include health care assistants, housekeepers, porters, and administrative and clerical staff. Many units have developed combined admin and nurse assistant roles that provide a flexible workforce and variety to their work.

The role of primary and social care

Good quality AEC provides an interface service between community and acute based care. There are opportunities for joint working on patient pathways that will deliver quality and value for the patient and the system. In order to achieve this, systems should work together to ensure information sharing supports cross-boundary dynamic care and that interagency professional standards are in place. The use of single point of access arrangements and unified care documents for transfers between acute and community services will reduce complexity for clinical teams.

Generally post treatment support and follow-up of patients occurs by telephone and can be provided by AEC nurses. Patients are given emergency contact numbers for expert nursing advice on discharge from the AEC unit.
Commissioning

This section should be read in conjunction with the Commissioning Guide to AEC (2017).

Clinical commissioning groups (CCGs) have an important role to play in increasing the level of AEC within systems. The increase in AEC will aid the achievement of key targets for quality and CCGs can influence the use of AEC by:

- Commissioning a clear service specification.
- Improving community provision.

Commissioners should develop contracts that drive the expansion of AEC. AEC has been found to be safe and effective as well as producing better outcomes in many scenarios, therefore AEC should be the rational choice as far as commissioners are concerned. AEC offers a cost-effective option, without compromising patient care.

Systems will need to work together to ensure that the case mix and threshold for AEC is appropriate and does not attract new activity as an unintended consequence. Where AEC is a new development in the system, operating under a block contract can provide an effective method of financial risk sharing whilst operational processes and systems are developed.

Experience has shown that AEC does not significantly increase the workload of the GP. Patients may return to see their GP in the same way as inpatients would to ensure that the treatment is progressing as planned, and the trust should have policies in place to support the patient, following their episode of AEC treatment (where appropriate).
Conclusion

Clinicians, managers and commissioners should use this guide to help them review AEC services and ensure operational processes and facilities for patients are in place to maximise AEC as an alternative to admission. The main aim is to create a philosophy where all non-elective presentations previously admitted but not requiring critical care are considered for AEC.

AEC provides safe, patient-centred care and is an integral part of the front door system. The ambition is to create AEC as a portal where AEC is excluded before a decision to admit is made.

Appropriate facilities and equipment must be provided, and when they are in place AEC can manage a wider range of patients. Processes are needed to ensure the right patients are managed in AEC and that unsuitable presentations are efficiently streamed to be treated as inpatients or referred to the appropriate alternative service.

The AEC team needs a broad set of skills and knowledge and a programme of education, training and development is needed to support this.

This guide must be read in conjunction with the Directory of Ambulatory Emergency Care for Adults; version 5 (2016).
References


