Version Five Updated August 2016, with 2014/15 HRG Codes

Ambulatory Emergency Care

NHS Elect

Contains seven new clinical scenarios

Directory of Ambulatory Emergency Care for Adults

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Previous version September 2014

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This is the fifth edition
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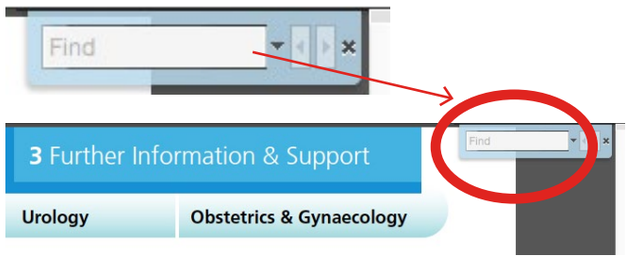

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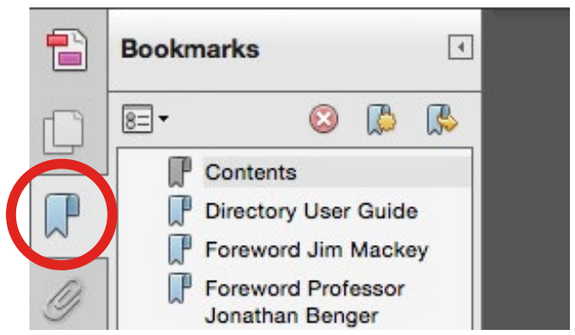

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ICD-10 codes

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Foreword

One of the key pressures in emergency services is managing increasing demand. Traditionally once a quick assessment is made emergency patients are admitted to hospital to receive diagnostics and treatment.

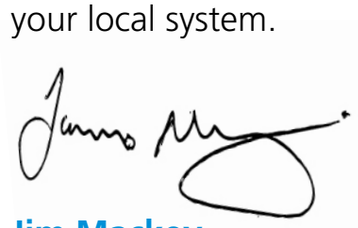
The Ambulatory Emergency Care approach explained in this guide describes a model where systems are redesigned to provide same day emergency care. This means about a third of admitted patients are seen, diagnosed, treated and discharged same day to continue their treatment at home or in a community setting, leaving admission to a hospital bed reserved only for very sick patients.

As part of the A&E Plan for 2016/17, we are mandating a number of priorities to enhance the quality of patient care; a key element of the plan is the implementation of ambulatory emergency care. A requirement of the plan is that all acute hospitals must have a consultant led AEC service operating at least 10 hours each weekday before the end of November 2016 and a seven day service should be introduced this year with a plan to fully establish during 2017/18.

Physicians and clinical teams currently providing this model of care agree that by implementing the key principles of AEC, we can start to address issues in managing emergency care pathways, whilst significantly improving patient experience. AEC is a cost effective, high-quality, patient-focused service that delivers senior review for effective care. Hence our move to make sure that these principles are rapidly operating at scale and systematically across all trusts.

We know that ambulatory emergency care is a key component of delivering safe, effective, high-quality care for patients, and as such should be an integral part of any urgent and emergency care system.

We have already seen the positive impact that similar a similar approach has had in improving elective care with the adoption of day surgery and know that AEC can do the same for emergency care. The challenge is to use the principles described in this Directory to establish an AEC service that works within your local system.



Jim Mackey
Chief Executive
NHS Improvement

Foreword

There is increasing recognition of the need to develop urgent care outside traditional hospital settings. New models of service delivery have the potential to achieve excellent and efficient care close to, or even in, the patient's home. This allows our urgent care system to be more tailored to patient needs and preferences, enhancing experience and preserving hospital beds for those with the most serious and complex problems.

This fundamental shift in the emphasis of care is described in the document "Transforming urgent and emergency care services in England. Urgent and Emergency Care Review: end of phase 1 report", published by NHS England in November 2013. The Urgent and Emergency Care Review, led by the NHS Medical Director, Professor Sir Bruce Keogh, is radically altering the way urgent care services are delivered in England, and ambulatory emergency care is a fundamental component of this change. New advances and new ways of working, coupled with developments in the NHS workforce and genuine collaboration between primary and secondary care, have the potential to move much urgent care activity out of hospital beds and into ambulatory and community settings.

This fifth edition of the Directory of Ambulatory Emergency Care for Adults builds on the success of earlier editions, and a programme of work that has effectively supported the adoption of this innovation across multiple NHS sites, improving uptake and reducing variation by fostering collaboration between disciplines and professions, and between community, primary and secondary care.

However there is still much to do, and many more patients who could receive care in more convenient and effective ways, closer to home, through the principles described in this Directory. Hospital admission should be reserved for the most severely ill and injured patients, who need the concentrations of expertise and high dependency care that hospitals can provide. For the majority, ambulatory emergency care should become routine, however this can only be achieved where it proves possible to implement whole-system integration and co-ordinated care, supported by new technologies, rapidly accessible diagnostics and a workforce that has the necessary knowledge and skills.

The Urgent and Emergency Care review aims to create the conditions that will foster a wholesale change, right across the urgent care system, combined with the guidance and tools to support local commissioners and clinicians in designing and delivering pathways that are focussed around patient need and experience, not around buildings or artificial divisions between services. Only through radical change can we achieve a sustainable provision of urgent care that ensures the highest quality of outcome and experience for all patients, delivered in a safe, timely and cost-effective way. Ambulatory emergency care is a key component of this change, and I look forward to the further development and implementation of this programme for the benefit of patients, staff and the urgent care system as a whole.

Professor Jonathan Benger
National Clinical Director for Urgent Care
NHS England

1 An Introduction to Ambulatory Emergency Care (AEC)

Introduction to AEC

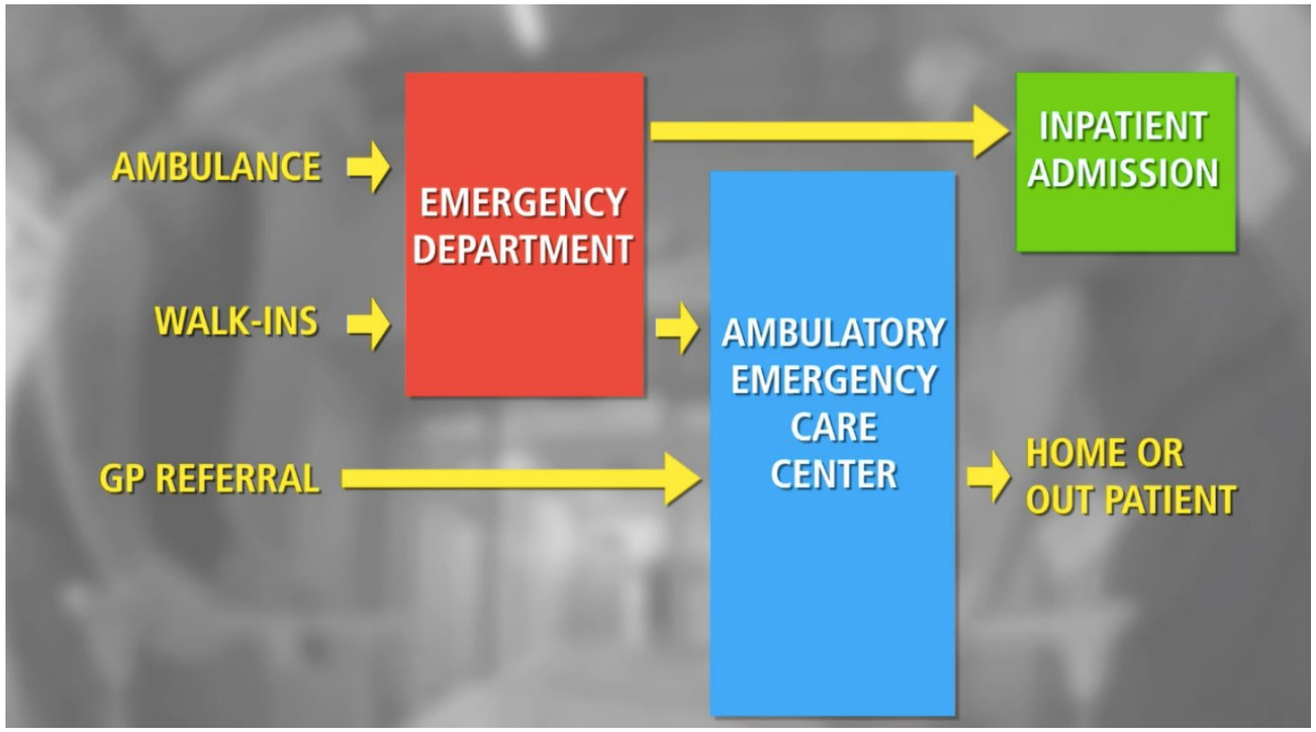
Developing AEC Services

Who is the Directory of AEC for?

This guide is for anyone involved in the design or delivery of emergency care services both in and outside of a hospital setting including ambulance and community services. You will find the guide useful if you are a clinician, manager, GP, commissioner, information analyst or healthcare student.

If you would like to find out more about AEC, visit our website at: **www.ambulatoryemergencycare.org.uk**

In this edition of the Directory we aim to update the list of conditions and ICD-10 codes as well as providing operational guidance on maximising AEC.



Context

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 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 decision making and 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 the frail elderly 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 are required to have AEC services in place by November 2016. Increased adoption

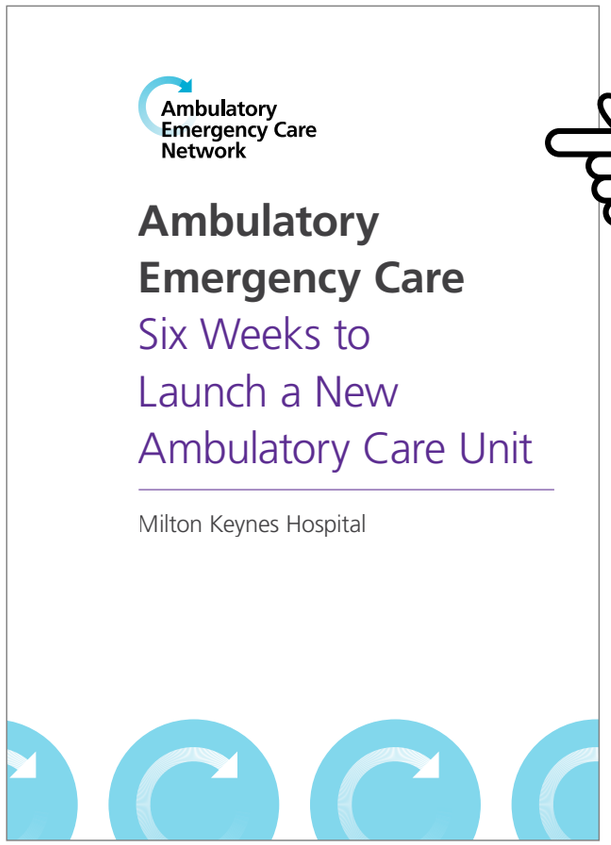
What is Ambulatory Emergency Care?

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.

To understand more about the social movement driving the adoption of AEC view our short film at:
www.ambulatoryemergencycare.org.uk

Ambulatory Emergency Care (AEC), or 'same day emergency care' is 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 and then sent home with ongoing clinical follow-up as required. This model of care is explained in a short film created for patients and clinicians alike, you can view it at:

Where AEC has been successfully implemented, it has led to a change in mindset; with AEC becoming the default position for emergency patients unless admission is clinically indicated. The change in mindset for AEC has been likened to the development of Day Surgery. The team at Milton Keynes NHS FT describe how they implemented AEC in a six week period. You can read their story here:

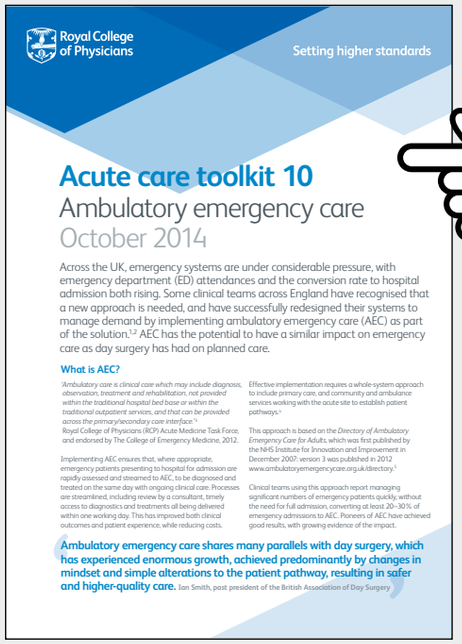


The Royal College of Physicians define AEC as:

"Ambulatory Care is clinical care which may include diagnosis, observation, treatment and rehabilitation, not provided within the traditional hospital bed base or within the traditional out-patient services that can be provided across the primary/ secondary care interface."

The Royal College of Physicians – Acute Medicine Task Force and endorsed by The Royal College of Emergency Medicine.

You can access the toolkit here:



The impact of AEC on the urgent and emergency care system has also been recognised by NHS England in the document Safer, faster, better: good practice in delivering urgent and emergency care (2015), where AEC is seen as a key component of a well-resourced system. Included in the recommendations is that *"Each acute site should consider establishing an AEC facility that is resourced to offer emergency care to patients in a non-bedded setting"* (NHS England, 2015). Evidence from this review highlights areas where AEC can impact and make the case for implementation compelling, these are:

- Preventing crowding in emergency departments improves patient outcomes and experience and reduces inpatient length of stay.
- Getting patients into the right ward first time reduces mortality, harm and length of stay.
- Patients on the urgent and emergency care pathway should be seen by a senior clinical decision maker as soon as possible, whether this is in the setting of primary or secondary care. This improves outcomes and reduces length of stay, hospitalisation rates and cost.
- Frail and vulnerable patients, including those with disabilities and mental health problems of all ages, should be managed assertively but holistically (to cover medical, psychological, social and functional domains) and their care transferred back into the community as soon as they are medically fit, to avoid them losing their ability to self-care.
- Ambulatory emergency care is clinically safe, reduces unnecessary overnight hospital stays and hospital inpatient bed days.

(NHS England, 2015)

It is recommended that you use 'Safer, faster, better' as a basis to inform the design of your system for emergency care. To learn more:

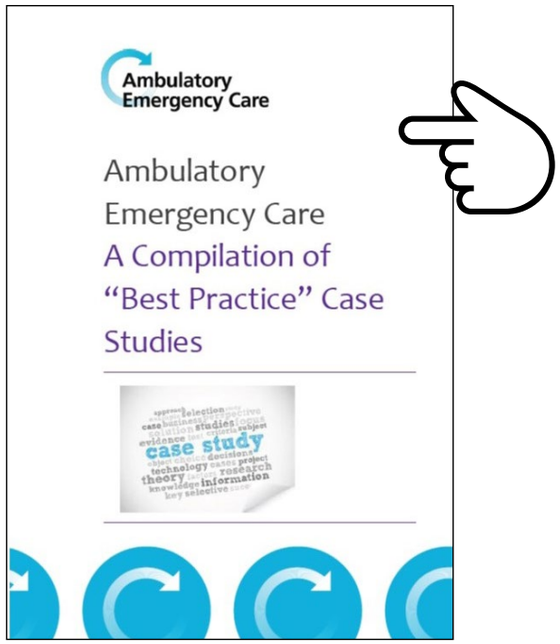
Principles of AEC

The overarching principle of AEC is that all emergency patients should be considered ambulatory until proven otherwise. Principles listed in the RCP toolkit (2014) are:

1. Senior clinical input is needed at the point of referral to redirect suitable patients to ambulatory care
2. Clear exclusion criteria based on the NHS early warning score (NEWS) should be developed to maximise patient flow to ambulatory care
3. Where possible the ambulatory emergency care service should be closely located to A&E
4. Staffing and resources should be organised to provide rapid assessment, diagnosis and treatment on the same day
5. The time standards in AEC should match the Clinical Quality Indicators for A&E i.e. time to initial assessment: 15 minutes, time to medical assessment; 60 minutes and completion within 4 hours
6. Patients should be informed early in their journey (ideally in A&E or by the GP) that they are likely to receive treatment that day and are unlikely to be admitted overnight to manage their expectations and those of their family
7. Secondary and primary care services should be geared around patient needs and work together to provide ongoing care outside of hospital to avoid a full admission
8. Staff training is needed across the local healthcare system to ensure appropriate patients are streamed to ambulatory care
9. Comprehensive records must be kept and discharge summaries sent to primary care within 24 hours
10. Providers must work with commissioners to agree how AEC activity will be recorded, reported and funded
11. Clear measures must be adopted and monitored to assess the impact, quality and efficiency of AEC

The main aim is to streamline processes enabling patients to be assessed, diagnosed and have treatment commenced same day. This means patients can be safely managed in an AEC environment without the need to stay in hospital overnight.

To understand how this might work in practice you can access a compilation of case studies here:



Advice on the design and development of your AEC service is described in the following sections.

Team Working

Clinical leadership to develop Ambulatory Emergency Care is crucial for its safe and effective design and delivery. Senior clinical personnel with expertise in illness severity, co-morbidity and functional assessment with the experience to make balanced risk decisions are required. AEC can be delivered in a range of locations and it is for each local healthcare system to decide on the appropriate configuration of facilities to develop and continue to improve services. Many AEC pioneers started from very humble beginnings, including corridors and cupboards, but, driven by the passion and determination of clinicians, as the case for service expansion became evident, they were able to progress to more appropriate facilities.

The configuration of your AEC team should be guided by the aims of the service and the identified potential activity and case mix. The underlying principle of early access to a senior decision maker is key to ensuring the capability to process patients at pace and scale. Consultations with senor clinicians result in more streamlined assessments, fewer investigations and fewer hand-offs in care. "A Senior Decision Maker" is usually a Consultant level doctor but can be experienced middle grade doctors or ANPs, provided they are empowered to complete the patient episode in a similarly efficient manner.

Having allocated medical and nurse staffing is essential to maximise an AEC service. Where clinical staff are expected to cover an area in addition to AEC it is unlikely that sufficient pace will be maintained with either workload. A further problem that can arise when AEC is mixed with other patient streams is gravitation of staff to the sickest patient, which although understandable, will take focus away from the high turnover AEC stream. Non-clinical time should also be built into job plans, especially where the AEC is undergoing active development work, to allow adequate capacity to deliver all aspects of the role and ensure consistent clinical cover.

Typical Team Composition:

- **Medical Staff** – Should be senior and experienced working in a focused assessment manner. An AEC mindset is more important than whether the staff come from ED, AMU or General Medicine and there are good examples in the Network of all of these models. Some organisations have had great success with bringing GPs in to AEC with the wealth of knowledge of community services they bring. Bringing in staff from other specialties can further expand the range of patients managed via AEC.
- **Advanced Nurse Practitioners** – ANPs can be a highly valuable resource to AEC and provide a seamless combination of medical and nursing care. Nursing roles in AEC are discussed in the section "Nursing Practice in AEC".
- **Registered Nurses** – Nurses are the component of the team that makes the service cohesive and who navigate the patient through a complex and unfamiliar system of care. Nurses who have experience of working in an assessment environment and good knowledge of the services available hospital and community wide will be invaluable as the backbone of the nursing workforce.

- **Healthcare Support Workers** – These roles free up Registered Nurses to stay on the unit and provide the clinical care required as AEC treatment can often mean moving patients through different diagnostic departments. These workers can undertake tasks such as phlebotomy, basic health assessments and point of care testing when they have undergone appropriate training, releasing RNs to deal with more complex processes. There is also the option of combining some admin functions to the role depending on local needs.

- **Therapists** – The input of therapists cannot be underestimated especially where the service is also seeing a cohort of patients with frailty. Access to therapies will allow AEC to manage patients with a much wider range of mobility and avoid admission of those who are most at risk of deconditioning during an inpatient spell. Some organisations have secured their own therapists while others have set up access agreements with MAU or ED based therapy teams. Ensure internal professional standards support and appropriate response time and cover can be provided into the evenings and at weekends.

- **Pharmacy** – Dedicated pharmacy support will help with medication reconciliation for polypharmacy patients and ensure minimal delays in obtaining discharge medications. It is also helpful to identify commonly used discharge medicines and consider having a stock of pre-packed meds to speed up discharge processes.

- **Admin Staff** – Staff to register patients and handle as many admin tasks as possible to free up clinical time are essential. IT processes for AEC in patient administration systems can often be complicated and non-intuitive so experienced admin staff or appropriate support should be available.

AEC presents a good environment for learning and development of junior staff and students with a broad case mix and high turnover of patients. This must be balanced against the need to process patients in a timely manner without creating steps in the journey that do not add value. AEC staffing should not be based on high proportions of junior staff "doing the work" as this can lead to extended assessments, unnecessary investigation and risk aversion in management plans.

Beyond the internal AEC team there are a number of other professions and departments where close working is needed to ensure operation is as smooth as possible and these relationships should be cultivated and formalised through internal professional standards. There will be some local variation but at a minimum these would include:

- Emergency Department
- Urgent Care Centre/Walk in Centre/Minor Injuries Unit
- Acute Assessment Unit
- Local GP forum
- Radiology
- Pathology
- Pharmacy
- Therapies
- Discharge Lounge
- Patient Transport
- Ambulance Service
- PALS
- Outpatients Manager
- Bed Manager

Environment and Facilities

AEC Units should be designed in such a way that the aims of the service can be met whilst maintaining privacy and dignity of patients. Consideration will need to be given to the case mix and demand. It is likely that as the service embeds demand will increase so plans will need to take into account early expansion to meet this growth.

Units have been developed by taking ward space from AMUs, using outpatient areas and collocating with ED. All options will have advantages and disadvantages. One of the main pitfalls to avoid is bedding of the AEC area as this is counter productive and will have a significant negative impact on patient experience and flow. It leads to variation in capacity and can take days to recover from; Network members have access to our guide on preventing bedding of AEC units. There are some basic principles that we know from experience can maximise success:

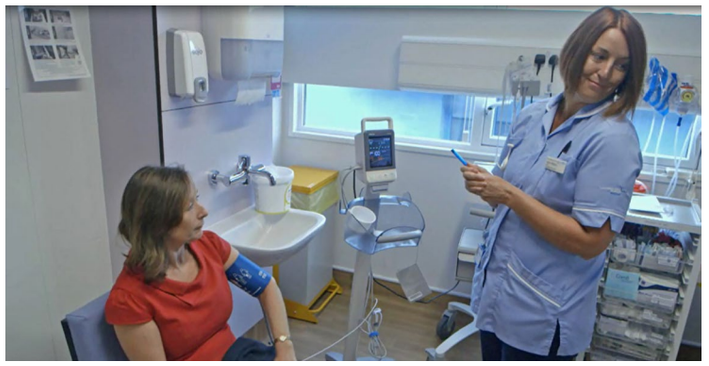
- **Using treatment chairs rather than trolleys, and trolleys rather than beds** – This reinforces a discharge mindset and avoids the temptation of bedding the AEC area. Some trolleys will be needed for patients who need to lie down.

- **Avoid making the area look like an inpatient ward** – If AEC looks like a ward it will be treated like a ward and bedding is highly likely.

- **Avoid making the area look like an outpatient clinic** – In this situation a misunderstanding can be created that AEC simply provides urgent outpatient management. This can attract activity that is low acuity, low complexity and often elective meaning that impact on emergency inpatient flow will be reduced.

- **An appropriate waiting area** – "hot-seating" patients so that they are only in a treatment chair/trolley while receiving a clinical contact reinforces the discharge mindset and allows greater numbers to be managed in the unit. The waiting area also allows management of peaks and troughs of arrival. The waiting area will need to be designed in such a way that patients are comfortable, have some form of entertainment and can have access to refreshments.

- **A treatment room or dedicated area for performing invasive procedures** – This will allow a greater range of patients to be processed and reduces unnecessary handoffs of care to other departments.



- **Dedicated initial assessment area** – AEC should maintain time standards similar to Emergency Departments in terms of time to assessments to ensure safety and efficiency.

Patient Selection

- **Use methods to enable remote management where appropriate** – Many patients may be able to leave the unit during wait times and return when the next stage of treatment is ready. Calling a patient on their mobile phone or giving them a pager may facilitate this. There may also be opportunities to manage patients by phone especially when discussing results that are not available on the day of test to remove the need to return to hospital.

- **Proximity to the Emergency Department and Acute Assessment Units** – There will be a flow of patients between ED, AEC and Acute Assessment Units, this will be more efficient where the physical distance is reduced. Co-location can also foster an environment of shared learning.

- **Good access to diagnostic departments** – AEC management often involves multiple diagnostic services. An easy route to these departments can enable patients to make their own way when appropriate, and where an escort is required will minimise staff time off the unit.

For a virtual tour of an AEC Unit click **here**.

Selecting the right patients for AEC is essential to maintain safety and maximise the impact on emergency flows. Remember the underlying principle of AEC is to convert traditional inpatient care into same day emergency care.

A process based model is recommended to maximise AEC. This means the system is designed for all patients to be streamed through AEC unless clinically unstable. With this approach you might expect to convert around 10% of AEC patients to inpatient admission. It is important that this is not seen as failure provided that: at the point of selection, there was a reasonable expectation of safe discharge and the patient has received maximal management. Taking this level of clinical challenge generally produces the most positive impacts on emergency flows. Bed management teams should take into account this potential stream of patients.

Diagram 1 below should be used to monitor the case mix of patients treated in an AEC environment to help understand how effective your patient selection is. Where patients are not being managed via the intended pathways, it is important to understand the root cause and manage this. The patient selection matrix below illustrates how analysis of patient selection might be undertaken.

A key component of the AEC pathway is the clinical conversation at the point of patient referral. This is an ideal opportunity to identify the best environment for the patient to be managed in, and offers real alternatives to transfer to secondary care and to initiate processes to prepare for patient arrival. This applies to internal and external referrals. We advocate these calls being handled by a dedicated senior decision maker to ensure the quality of response and facilitate a degree of clinical challenge with the referral. Out of hours, robust processes should be in place to allow

Diagram 1

	Suitable for AEC	Unsuitable for AEC
Seen in AEC	**Success** (expect about 10% conversion rate)	**Risk** (patient too sick/complex at time of selection)
		Waste (patient could be managed in other outpatient service)
Not seen in AEC	**Missed opportunity**	**Success** (appropriate inpatient care)

patients to be booked to attend AEC at the next available opportunity with holding management initiated by the referrer where appropriate.

We have developed four key questions (see opposite) for determining patient suitability for AEC and these can be used to structure the clinical conversation at referral, as a checklist and as an audit tool. These questions require a good understanding of the local system and AEC aims/capabilities.

These questions reflect the needs of the patients but also the capabilities of the AEC service. It is important to reflect on whether the design of your service is limiting the type of patient that can be managed and in turn limiting the impact of AEC on the system.

It is important you work closely with ED staff to maximise the flow of patients to AEC. The following processes can be effective:

- redirecting appropriate patients following triage
- undertaking regular board rounds with ED staff to identify patients
- displaying a list of common AEC conditions to help identify patients
- giving the AEC team access to the ED board to spot patients
- allowing automatic referral from ED for appropriate patients

Key Questions

Is the patient sufficiently stable to be managed in AEC (usually NEWS <=4?)

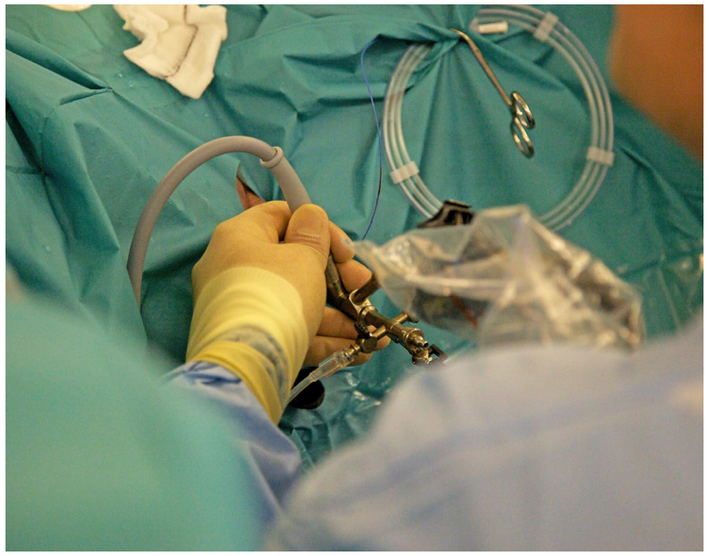
Is the patient functionally capable of being managed in AEC whilst maintaining their safety, privacy and dignity?

Is there an existing outpatient or community service that could more appropriately meet the patients needs?

Would the patient have been admitted if AEC was not available?

Surgical Specialties

A number of units are developing Surgical AEC systems and this has recently become an area of great interest. Teams have approached this in a number of ways, some units have integrated surgery and medicine in AEC whilst others have developed an AEC stream as part of an existing Surgical Assessment Unit. As medical AEC originated with the development of pathways for DVT, surgical AEC has evolved from abscess pathways. Abscess pathways are well established in many organisations where patients are assessed for suitability and if appropriate discharged home and listed for surgery the next day.



Excellence in short stay surgery

The British Association of Day Surgery has recently produced a handbook on Ambulatory Emergency Care (BADS, 2016), you can order the handbook **here**. Ambulatory Emergency Care is a natural evolution for Day Surgery and employs many of the same principles to provide effective care.

"Many emergency surgical procedures are minor and non-life threatening and traditionally have been considered low priority for surgical intervention. Consequently, it is not unknown for these patients to occupy an acute surgical bed for several days as subsequent admissions are prioritised to restricted emergency theatre slots. Indeed, when eventually scheduled for theatre, patients such as these are often discharged within a few hours of their operation, raising the possibility of an ***emergency day surgery pathway.****"*

(BADS, 2016)

Some sites have developed a systematic approach where surgical referrals are assessed for AEC management. This is usually best supported by immediate availability of an Emergency Surgeon and supported by diagnostics to aid clinical decision-making. A small number of sites use specific theatre lists to support the surgical AEC pathway so that patients may be seen by a consultant, have a diagnostic test and surgery within the working day to be discharged home that evening.

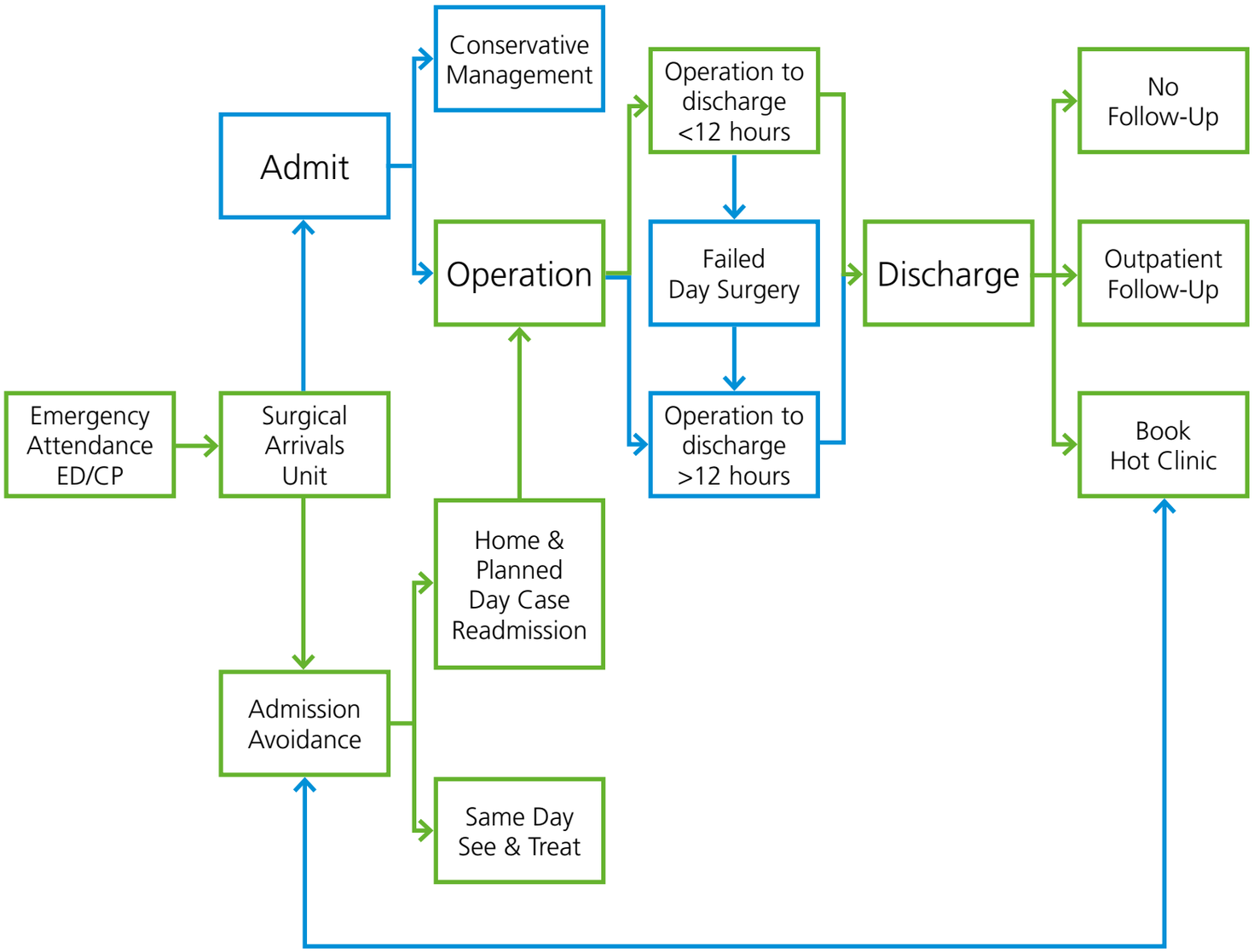
For Surgical conditions requiring invasive intervention managed via AEC, three broad groups can be described:

- Preoperative delay, but surgery and discharge on day case basis.
- Emergency day surgery with entire pathway completed on same day.
- Planned preoperative discharge with return within the next few days for surgery with same day discharge.

(BADS, 2016)

A high-level system view containing these options is shown in Diagram 2 with the **AEC pathway highlighted in green**.

Diagram 2 Emergency Surgery Flow



Just as with Medical AEC patient selection is key to effective management. In addition to the general considerations of patient stability and level of function there are additional factors relating to the surgical procedure:

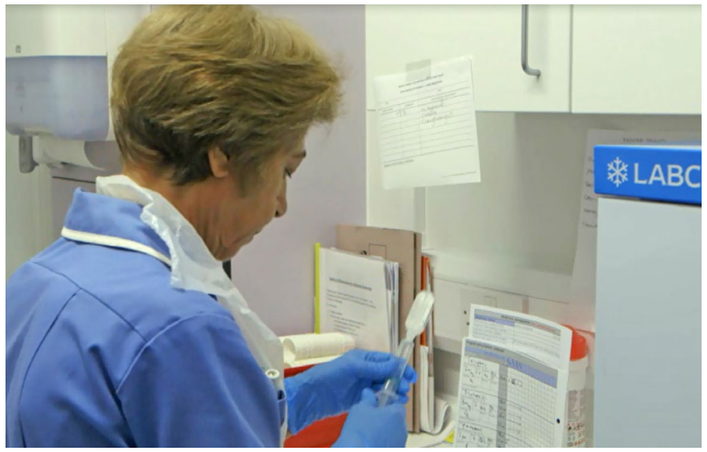
- The proposed surgery is suitable for day case management
- Potential for systemic sepsis is excluded before temporary discharge prior to operation.
- Usual criteria for management as a day case are met.
- Any pain can be managed with appropriate analgesia at home.
- Patients with diabetes have stable blood sugars.

(BADS, 2016)

The Surgical scope of AEC is going through a period of rapid development and as such the clinical scenarios and coding listed in this Directory will be updated as evidence becomes available.

Nursing Practice in AEC

The nursing workforce is key to developing and delivering an efficient, high quality AEC service. In particular, the nurses more functional assessment of patient needs and familiarity with services available in both Primary and Secondary care can provide a highly comprehensive and holistic management plan. Nurses tend to provide a more stable and consistent workforce than doctors in training posts and so represent a huge resource in terms of organisation knowledge and continuity of service development plans.



AEC represents a perfect opportunity for nurses to develop their skills and advance their scope of practice and there are many examples from UK sites of nursing staff rising to the challenge and pushing boundaries. This applies equally to unregistered nursing staff where we have seen the development of a number of interesting roles.

The development of clinical nursing roles in AEC can be broadly organised into the following levels with management responsibilities running in parallel:

Non-Registered Nurse Roles

- **Healthcare Assistant (HCA)** – comparable role to ward based staff attending to personal care needs, escorting patients to diagnostics, vital signs monitoring etc under the direction of a Registered Nurse.

- **Combined Admin and HCA roles** – able to work flexibly as required between a ward clerk/receptionist function and patient care duties. This can offer advantages in managing variations in activity levels and rostering.

- **Advanced HCA** – having established competency in the basics, the HCA role has now taken on additional skills that are traditionally considered to belong to RNs e.g. Phlebotomy, canulation, medication administration and basic health assessments. It is important to remember that these tasks are delegated appropriately by a RN who remains accountable for the care. More information can be found using the links below.

  RCN (HCA and AP roles and competencies)

  Health Education England (developing educational programmes)

Registered Nurse Clinical Roles

- **Registered Nurse** – practicing competently at the levels expected commonly throughout the health economy.

- **Registered Nurse initiating additional skills** – certain process steps are initiated by appropriately trained nurses in accordance with a clear policy e.g. defined basic radiology requests, predefined pathology request panels, and analgesia given under Patient Group Direction (PGD).

- **Registered Nurse operating a care pathway** – an appropriately trained nurse completes a defined series of actions representing a patient journey in accordance with a policy; in some cases this may include discharge against set criteria. Patients have been differentiated prior to entering the pathway. Freedom to act is constrained by the pathway and a Dr or ANP handles any co-morbidity or deviation from expected pathway. Medication is usually handled by Patient Group Directive rather than non-medical prescribing. This can be seen in some examples of DVT and cellulitis services.

- **Clinical Nurse Specialist** – significant clinical experience and further training has been undertaken, often at Masters level, to manage a group of patients within a defined clinical field. There is freedom to act outside of a formalised pathway including investigation, diagnosis and treatment, but only in relation to the specialist area of practice. Patients have usually been differentiated prior to CNS management. Medication is usually handled by non-medical prescribing. The CNS will act as a learning and development resource to other nurses and healthcare professionals and contribute to practice and service development. Some DVT services use this model and many subspecialty services use CNSs who may offer in-reach into AEC.

- **Advance Nurse Practitioner** – significant clinical experience and extensive further training has been undertaken at Masters level in a specified programme to enable generalist, whole management of an undifferentiated patient's episode. This will usually include the authority to request appropriate advanced radiology, make a final diagnosis, prescribe medications, undertake technical clinical procedures, refer to specialists for further management, and discharge the patient. In some organisations ANPs clerk patients and present to a senior doctor for direction on management; while this may be useful while newly qualified, long-term it fails to realise the potential of an expensive and highly skilled resource. ANPs will act as a learning and development resource to other nurses and healthcare professionals and contribute to practice and service development.

  RCN (ANP Competencies)

  NMC prescribers standards

  Health Education **England** (developing educational programmes)

Some examples of job descriptions can be seen **here**.

All registered nurses are bound by their code of conduct to practice within their own scope of professional practice recognising their limitations and development needs.

In developing your service be clear about your aim and how team roles can contribute to effective delivery of the service.

The Society of Acute Medicine has produced guidance on workforce planning for Acute Medical Units and the underlying principles can be easily translated to AEC which can be found **here**.

NICE have also produced general Nurse staffing guidance that contains useful prompts on which to base your planning discussions which can be found **here**.

In this Directory clinical scenarios that are felt to be particularly amenable to nurse management have been highlighted in blue, this list is not exhaustive or intended to be taken as a limitation. The highlighted examples could be appropriate for nurses at levels able to initiate significant process steps, operate a clinical pathway or practice as CNS. ANPs practice as generalists and providing the appropriate competency has been demonstrated could potentially expect to practice across all scenarios described in the Directory.

Pitfalls

Operational teams often report difficulties when AEC services are used in escalation, this means patients are bedded in the area preventing treatment of AEC patients. Escalation plans should be designed to avoid this, when the system is under pressure AEC is a key component of the response. Action should be taken to enhance AEC i.e. provide resources to process more patients same day or lengthen the hours of operation to increase capacity for more patients. If AEC is unable to operate this will have a negative effect downstream prolonging escalation.

Design tips to reduce the risk of AEC units being used for temporary bedded accommodation can be seen **here**.

Commissioning for AEC

In December 2014 NHS England published planning guidance for CCGs and healthcare staff identifying models of care that will apply in 2018 and the steps needed to achieve the vision. Many of the steps described apply to AEC such as:

'Reducing the amount of time people spend avoidably in hospital through better and more integrated care in the community, outside of hospital'.

'Increasing the number of people with mental and physical health conditions having a positive experience of hospital care'.

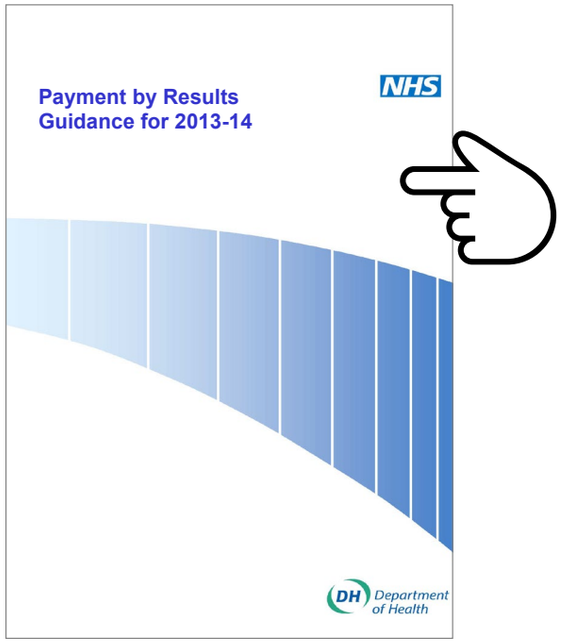
The report shares examples of patient feedback and states:

'Our patients have consistently told us how important it is that they don't have to wait for treatment. They tell us that waiting can be the most distressing part of their illness. And we know that waiting can make clinical outcomes worse and can even make services unsafe. We also know that our services can only improve outcomes for patients if they are available to them and they receive those services quickly, when they need them, and in a way which is convenient for them and fits with their daily lives'.

We know through participating sites who measure patient experience, that patients have a very positive experience whilst in AEC and that this model of care has many of the elements needed to meet the ambitions set out in the NHS planning guidance.

Best practice tariffs have been designed for AEC as a lever to promote the management of some high volume conditions on a same-day basis using an ambulatory emergency care model.

Guidance that explains the pricing methodology for the Same Day Emergency Care or AEC Best Practice Tariff can be found **here**.



Best Practice Clinical Scenarios (BPT)

There are a number of conditions where BPT is applied in Emergency Care. These are:

- Abdominal Pain
- Acute Headache
- Anaemia
- Appendicular Fracture
- Asthma
- Bladder Outflow Obstruction
- Cellulitis
- Chest Pain
- Community Acquired Pneumonia
- Deliberate Self Harm
- DVT
- Epileptic Seizure
- Fall, including Syncope/Collapse
- Low Risk Pubic Rami fracture
- LRTI without COPD
- Minor Head Injury
- PE
- Renal/Ureteric Stones
- SVT including AF

Case Management Plans

It will be the responsibility of the senior clinical team members to ensure that well documented, case management plans with transparent lines of clinical responsibility are developed. Managing these could include monitoring the patients' condition by either telephone consultation, electronic communication, at home by the community healthcare team, attendance at primary care, a day treatment unit or an outpatient clinic, depending on the clinical situation and local service configuration. An example of an AEC medical clerking sheet can be seen **here**.

Specific pathway documents for high volume clinical presentations, for example DVT, can be helpful with a more generic document to accommodate the others. Ideally a document should be developed that supports the patient's care throughout the pathway and can be initiated wherever the patient presents and wherever they receive their ongoing care. An example of a DVT and PE pathway can be seen **here**.

The case management plan should be communicated with all parties involved in managing the patient's care and of course the patient. The case management plan should include:

- Diagnosis
- Relevant diagnostic results
- Treatment plan
- Referrals made
- Actions required from other clinicians
- Contact in the event of clinical deterioration or non-response to treatment
- Contact details for enquiries

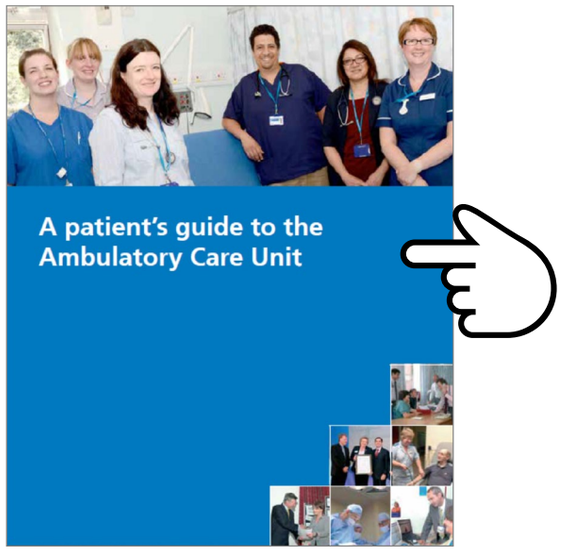
Patient Information and Experience

Undertaking patient experience studies with teams across the network has highlighted the importance of providing information to patients in the pre-arrival stage of the AEC pathway. Patients have explained that they are not used to the term 'ambulatory' and because of this they describe feelings of worry and anxiety before attending the service. Having negative feelings before attending AEC can colour the whole experience for patients and it is important that information is provided at the first contact, either with the GP or referrer.

We know that it makes all the difference to patients by providing them with clear, concise, easy to read information explaining:

1. What Ambulatory Care is
2. Their condition
3. The case management plan
4. What to look out for suggesting any deterioration
5. The monitoring process
6. A specific contact point if there are any concerns

An example of a patient information leaflet can be seen here:



Emotional Map

% of patients were happy, comfortable, safe, supported or good

Prior to Arrival	On Arrival	Initial Assessment	During Investigations	During Treatment	During Next Steps
72%	87%	95%	92%	95%	94%
21%	13%	5%	8%	5%	3%

% of patients were worried, sad or lonely

% of patients were worried

Undertaking a study of patient experience should be an essential part of your project, as understanding how patients experience our services is critical if organisations are to be able to design services that meet patient's needs. Through the network staff receive training about patient experience, and project teams are supported to work with patients to agree improvements to local services. This approach ensures that there are no gaps between staff and patients on the perceived actions/resources needed to improve patient experience.

When patients are involved in improving services their needs are often very simple and not costly e.g. provision of refreshments, clear signs directing patients to the services etc.

Following attendance at AEC patients should be provided with a copy of their plan and treatment; this should also be sent to their GP e.g. e-discharge. Information should include 'contact numbers' and guidance on who to contact if they are worried. Having a contact point is important to ensure that patients feel confident that they are being managed safely. Local implementation teams will need to consider how best to set up this important process 24 hours a day, 7 days a week.

Depending on service delivery this could be the A&E or AMU; other options to consider might be integration of this contact point with the Out of Hours Services, NHS 111, or with the Ambulance Services. Shared decision making, involving patients fully in their own care, with decisions made in partnerships with clinicians should be the norm in AEC.

Measurement and AEC

In order to demonstrate the impact of AEC it is essential to ensure that you have a clear aim and an understanding of your baseline position.

For example, your aim may be to avoid admissions, reduce emergency bed days, improve performance of the 4 hour standard, improve clinical outcomes or improve patient experience. Your outcome measures should reflect this aim: for example, emergency bed day usage of patients who meet the clinical scenarios in this Directory.

Being clear about current emergency and urgent care patient flows at baseline and measuring those that are important to demonstrate impact or monitor potential unintended consequences (balancing measures) is a useful starting point.

The number of new patients who receive the service is a process measure and not an outcome measure. Additional process measures that demonstrate the AEC service is operating well should include the right patients, receiving the right care in AEC services, at the right time. Combining outcome and process measures will help you to answer the question: has developing AEC services enabled an improvement (see figure 1).

Figure 1 Has developing AEC services enabled an improvement?

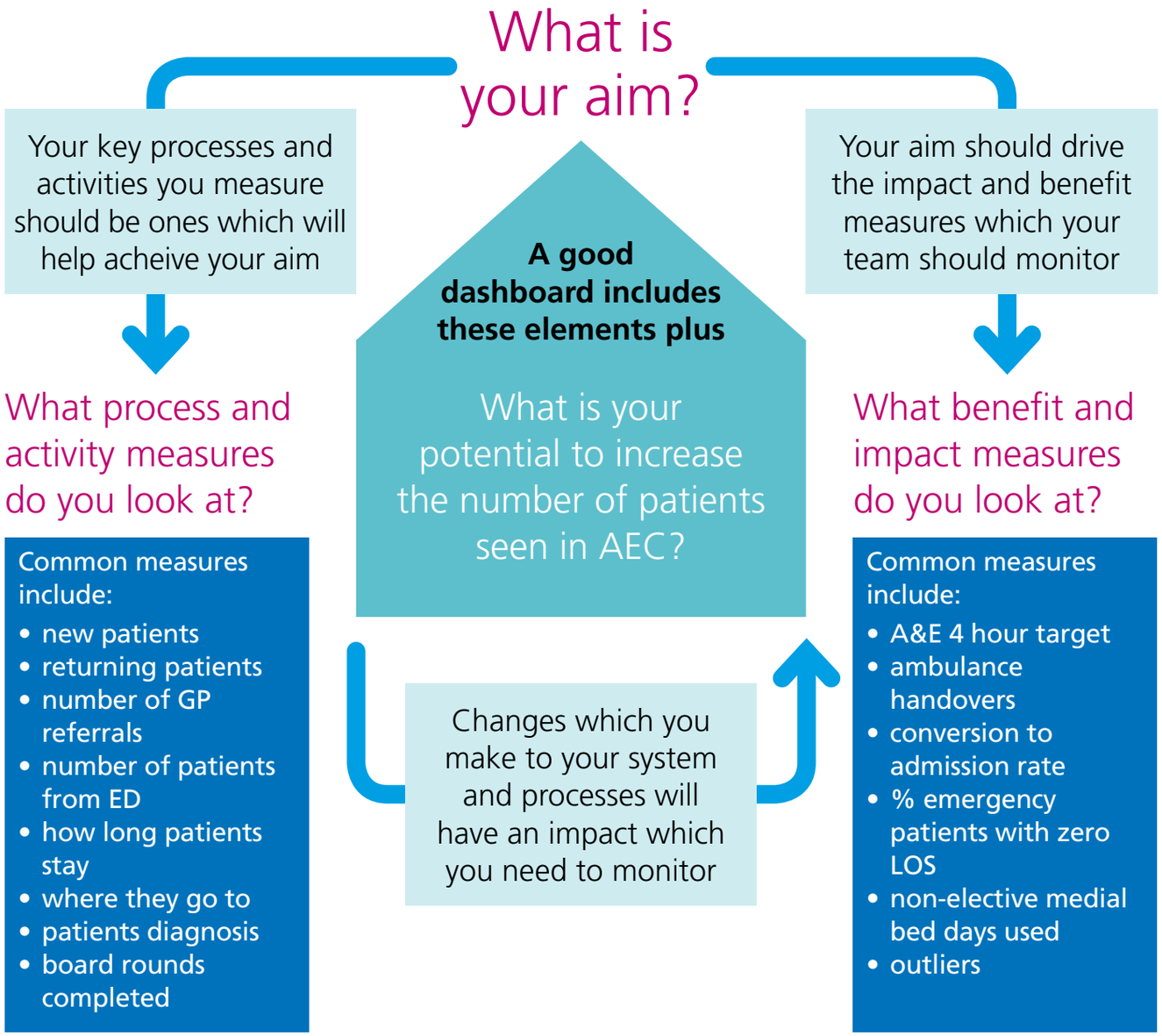


Figure 2 highlights this for new AEC patients. It shows that there are two groups of patients who may not be appropriate for AEC services – patients who should have been admitted directly to a specialty base ward for example as they are clinically unstable and those that could have been managed in another setting (e.g. outpatients/ED).

Having clear thresholds for the service that are shared and agreed by the clinical team will help define the measures. A regular casefile review will support the assessment of this aspect of clinical decision-making and ensure patients are receiving care in the most appropriate setting.

Figure 2 2x2 matrix illustrating "right patient, right place" is it effective?

	Managed in AEC	Not managed in AEC
	conversion	
Appropriate in AEC	**Box 1: Success** % conversion from AEC service to admission Clinical outcomes/experience	**Box 2: Missed opportunity** % HRG/ICD-10 clinical scenarios Casefile review
Not appropriate in AEC	**Box 3a: Wasted capacity** Some HRGs may indicate Low conversion rates Casefile review	**Box 4: Appropriate** Emergency inpatient/outpatient care
	Box 3b: Potential clinical risk Patients NEWs score High conversion rates Casefile review	

Other measures may indicate the need for a casefile and/or clinical review:

- **Wasted capacity:** A relatively high proportion of some Healthcare Resource Groups (HRGs) or unexpected changes in proportion may indicate a need to review thresholds and check if patients could have been managed in a less urgent setting, and/or highlight a need to improve clinical information for coding. It is a marker for a quality review for improvement and should not be used for performance, especially in process models as some HRGs may be appropriate. Some examples include: high proportions of patients receiving blood transfusions, generic "catch all codes" such as those HRGs that include the term "other" and/or codes reflecting elective follow-up appointments. All of these codes may reflect patients that receive care in the right place at the right time.

- **Potential clinical risk:** A high conversion rate to admission and/or patients with an aggregate NEWs score above 4 may indicate patients who are too acute or too complex to be managed in AEC.

Reviews of HRGs and ICD-10 codes are indicative not definitive. They can act as a trigger to ask further questions but in themselves cannot answer the question if a patient is in the right place at the right time when they receive AEC services. It is essential that reviews include clinical input as the clinical presentation and decision making may differ from the final HRG/ICD-10 code, and that there is clarity on the aim of the service.

A one-off review can identify patients that are admitted but could have been seen in AEC i.e. those that are in the **"missed opportunity" box**:

- First by reviewing the casemix of patients being admitted (particularly those with a 0,1 or 2 day length of stay) compared with those receiving AEC using this Directory.
- A second approach is a clinical assessment of patients admitted to short stay wards/Acute Medical Unit the previous day to understand which patients could be managed through AEC and why this did not occur.

These two approaches can complement each other – the first may identify clinical areas to target and the second provides insights to changes required in clinical processes and resource for the AEC service to effect change.

Activity

You also need to decide how to capture your AEC activity. As AEC patients can legitimately span inpatient, outpatient (new and follow-up) and ward attendance it is important to agree your approach with commissioners and understand any implications to national measures. For more information see Factsheet 2 here:


AEC Network Measurement Team Fact Sheets
2 - Recording AEC Activity

Ambulatory Emergency Care

What is the purpose of this factsheet?
A common question amongst people starting out on their AEC Journey is 'how should we record AEC activity?'

Background and context to this fact sheet
AEC does not fit neatly into the current guidance on how to record patient activity. The current NHS data model sees patients treated in secondary care only in one of three ways: as an inpatient, as an outpatient or as an A&E attender. None of these descriptions completely covers what AEC units are providing. However we are left with a choice of these three existing datasets until the Data Standards that govern practice provides us with a way of identifying ambulatory emergency care patients.

Option 1: A&E Attender
To qualify as an A&E attender, the treatment has to take place within the department (ref: http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/a/accident_and_emergency_attendance_de.asp?query=Accident%20and%20Emergency%20attendance&rank=100&shownav=1). We cannot therefore recommend recording AEC activity as an A&E attender because commonly the activity does not take place within the A&E department.

Option 2: Inpatient
To be correctly classified as an inpatient, patients must require and make use of a bed as a result of their condition. Historically guidance has been given to enable a distinction between elective day cases and outpatient attendances (ref: http://systems.hscic.gov.uk/data/nhsdmds/faqs/cde/admitpat/daycase). This makes it clear that if a patient is using a hospital bed because of the active intervention rather than because of the patient's condition this activity is not counted as an admission but as an outpatient attendance—consultant. There is also similar guidance within the PbR material (ref: http://systems.hscic.gov.uk/data/nhsdmds/faqs/obr/guidance-for-obr). AEC patients are therefore not officially inpatients and if the decision is made to record them in this way to ensure that clinical coding takes place, they should be removed from reports of inpatient activity so as not to mislead.

Option 3: Outpatient
AEC patients are not a traditional outpatient either because they are not planned in advance. The definition of what constitutes an outpatient appointment is not absolutely specific on this point but the inference is clear (ref: http://www.datadictionary.nhs.uk/data_dictionary/classes/a/appointment_de.asp?shownav=1). However this is an alternative option where doctors are involved in the care of the AEC patient. If the AEC unit is run by nurses alone, the guidance on how to record the activity is less clear. The reference above refers to an appointment with a care professional and the list of approved professionals includes nurses. However the PbR guidance referenced under option 2 when referring to attendances on a ward states that those patients seen by a nurse should be recorded as ward attenders. However the same guidance does also support the use of the outpatient route for emergency cases.

On balance therefore this option is acceptable. The issues here are twofold: (a) is clinical coding willing to code what is being recorded an outpatient activity and (b) BPT assumes inpatient activity. It is important therefore to have discussions with your commissioners about reimbursing AEC activity.

Recording follow up activity
The recording of patients who come back to the AEC unit for a second or further visit also needs some consideration. Should they be a follow-up outpatient attendance, a ward attender or a re-admission? The guidance given above applies equally to subsequent attendances as it does to the first. Thus there is a case for any of these options.

If you have chosen to record first attendances as an inpatient, you have a choice that is determined by why you chose the inpatient recording route. If your AEC patients don't meet the inpatient criteria (the most common situation) but it is convenient for you to record them as such, then the follow-up patients are not inpatients either. These should be recorded as either a follow-up outpatient attendance or ward attender. The majority of sites capture their data like this.
However, if your AEC patients **do** meet the inpatient criteria and if the re-attendance also qualifies as an inpatient, they should be a re-admission. If the re-attendance does not require a bed then they should be recorded as a follow-up outpatient attendance or a ward attender.

These solutions work best where there is a clear agreement on the definition of AEC activity between commissioners and providers.

The following steps will help:

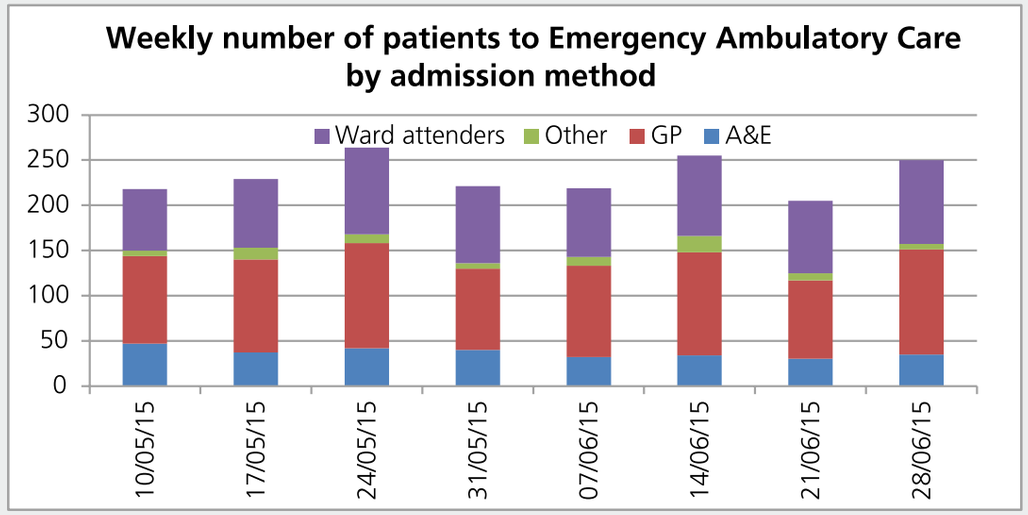
- Ensure AEC activity can be separately identified from other emergency care activity e.g. by specifying a particular location code
- Ensure it is possible to differentiate between new and follow-up activity, how the patient accessed the service and the outcome (e.g. discharge, follow-up, admission)
- Decide which hospital information system will be used to capture AEC activity: e.g. systems used in ED, inpatient or outpatient
- Decide how the activity will be returned to national datasets with commissioners
- Clinically code all AEC activity so that major diagnostic groups can be identified and comparisons made with the pre-AEC developments position
- Capture telephone activity and outcomes

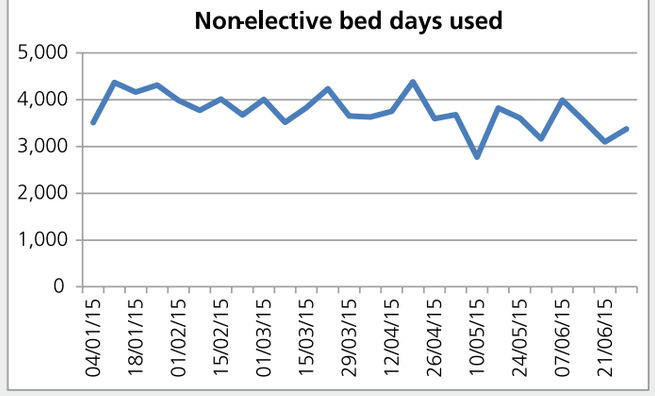
Experience from the AEC network has shown that it is crucial to work out how to effectively capture the right data early on in planning for AEC services and developments.

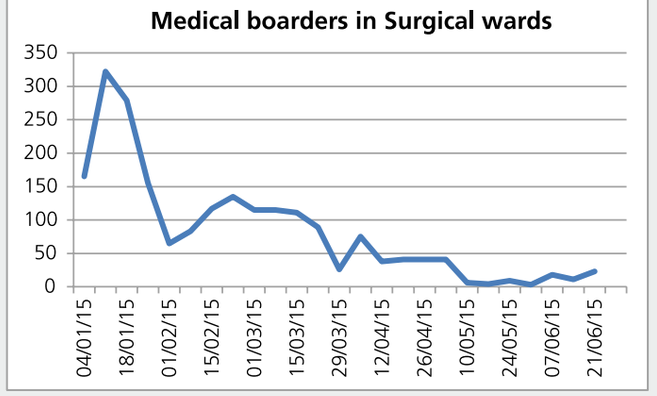
AEC Dashboards

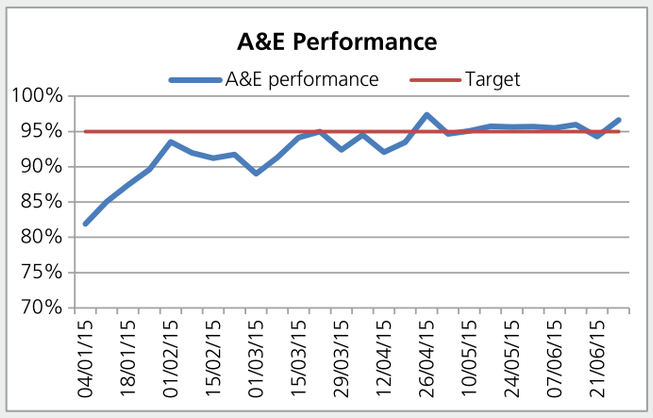
A useful approach to measurement in AEC is to produce a dashboard of measures based on the aim of your service as this will provide rapid and visible feedback that can shape further development. This dashboard should include outcome measures, process measures and some balancing measures i.e. have there been any unintended consequences from implementing the service. An illustration of measures used in an AEC dashboard is provided in chart 1 opposite.

Chart 1









Tariff and AEC

Across the AEC Network commissioners and providers have adopted different approaches to agreeing an appropriate tariff for ambulatory patients. Some health economies employ a mixed approach while others opt for one of the following:

- Payment by Results national inpatient tariffs
- Payment by Results national outpatient tariffs
- Local tariffs agreed between provider and commissioner
- Block contracts

Payment by Results (PbR) national inpatient tariff have scenarios identified for Best Practice Tariffs (BPT) that have been designed for AEC as a lever to promote the management of some high volume applicable conditions on a same-day basis using an ambulatory emergency care model.

Guidance that explains the pricing methodology for the Same Day Emergency Care or AEC BPT can be found **here**.

BPT Clinical Scenarios

There are a number of conditions where BPT is applied in Emergency Care. These are:

- Abdominal Pain
- Acute Headache
- Anaemia
- Appendicular Fracture
- Asthma
- Bladder Outflow Obstruction
- Cellulitis
- Chest Pain
- Community Acquired Pneumonia
- Deliberate Self Harm
- DVT
- Epileptic Seizure
- Fall, including Syncope/Collapse
- Low Risk Pubic Rami fracture
- LRTI without COPD
- Minor Head Injury
- PE
- Renal/Ureteric Stones
- SVT including AF

Successful local approaches to setting local tariffs include:

- shared understanding of the aim of the service between commissioners and providers
- shared understanding of the cost of providing the services and expected levels of activity
- ability to share any anticipated financial risk with a shared ambition that there are "no winners or losers"
- agreed measurement and checks to ensure there is no double counting and no financial winners or losers
- understanding of the cost of providing the services compared to traditional inpatient care and application of relevant national reference cost to inform local tariff developments
- agreement around any incentives required to support the developments

Using the HRGs and ICD-10 Codes in the Directory

You can use the codes in this Directory to identify potential areas to develop AEC services, and to summarise casemix. As we are using data designed for a different purpose, it is useful to understand HRGs and ICD-10 codes.

Clinical decision-making that results in a patient being seen in AEC rather than other settings is based on available information at the time that the patient presents at the hospital setting. Whereas clinical coding and the development of ICD-10 and OPCS-4 codes combined with other relevant information, define HRGs and are based on all the available information after a patient is discharged.

It is possible for example, that a patient who is appropriately seen in AEC for DVT, is not diagnosed with DVT and is allocated another HRG code through the grouper for example "Soft Tissue Disorder".

Another consideration is that HRGs are developed to ensure that providers are paid appropriately for patient care. This is useful as unlike a single ICD-10 they can reflect the complexity of the patient (with complications/ without complications) – if we apply a principle that more complex patients need more resources. Some HRGs are quite general, whilst others apply to more than one clinical scenario.

This Directory intends to highlight clinical scenarios that are either high volume and/ or where a large proportion of patients can be seen as same day emergency care. This combined with the limitations of HRGs and ICD-10 codes means that the Directory can only indicate casemix and not define patients that could be seen in AEC. In particular, we expect a diverse range of HRGs and ICD-10 codes for process-based models of care.

Therefore, it is strongly recommended that HRGs and ICD-10 reviews are not used to judge AEC services but can be used to inform developments.

Example

In the clinical scenario "known oesophageal stenosis" two HRGs have been identified. The % of patients that could be managed by AEC may or may not reflect the % in the HRGs as this % reflects the prospective clinical presentation.

Clinical scenario **Known oesophageal stenosis (either stented or unstented)**	
HRG Codes and Detail	
FZ31E	Disorders of the Oesophagus, with length of stay 2 days or more, without Major CC
FZ31F	Disorders of the Oesophagus, with length of stay 1 day or less
% potential ambulatory care (primary ICD-10 coded admissions)	

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

SHOW ICD-10 | HIDE ICD-10

C150, C151, C152, C153, C154, C155, C158, C159, K220, K222, K224, K225, K227, K228, K229, K238, R12X, R13X, T181

The HRGs includes 2+ length of stay so it is possible to develop a sensible percentage of patients seen in AEC. The HRGs excluded FZ31D – Disorders of the Oesophagus, with length of stay 2 days or more, with Major CC = as this reflects patients that have significant co-morbidities and are unlikely to be able to receive care in AEC. However, we may not be surprised if a couple of patients could be appropriately and safely managed in AEC.

This Directory is provided to AEC Network members in an excel spreadsheet, updated annually. In this version we differentiate between "indicator HRGs" to support the analysis to identify potential clinical areas to develop services and HRGs help to summarise the casemix of patients being seen.

In the following sections you will find a selection of clinical scenarios that are particularly amenable to the AEC process with their respective ICD-10 and HRG coding. This list is not exhaustive but represents a firm foundation for establishing the required mindset and process changes. We recognise that there are many and evolving opportunities for further change and where these represent significant flows, the list will be updated.

As in the example opposite, potential codes have been included to help you search for these conditions within your datasets so that you can understand how these patients are being managed with your system. Further guidance has been given as to the expected proportions that could be managed via AEC along with a selection of clinical evidence to support this.

New Clinical Scenarios for the AEC Directory 2016

This section describes the approach that was used to identify seven new clinical scenarios for the Directory, the new scenarios are:

- Biliary colic
- Inflammatory bowel disease
- Electrolyte disturbance
- Other respiratory conditions
- Low risk acute kidney injury
- Painful hernia
- Haemorrhoids

Initially five clinical areas were highlighted for consideration by national clinical leads, these were:

Low risk acute kidney injury – stage 2

Haemorrhoids

Electrolyte disturbance

Biliary colic

Painful hernia

These scenarios were reviewed in turn to identify relevant ICD-10 codes and HRG4 codes with an additional analysis to understand current unplanned activity using the HRG4+ activity data.

The national reference costs data associated with HRG4+ provides useful but not specific unplanned activity data supplied by hospitals across the English NHS. The complication is that HRG4+ differs from HRG4 which is part of the national "payment by results" and the coding we supply in the AEC Directory. If the first four codes of an HRG are the same between HRG4+ and HRG4 it has been assumed that these HRGs are similar enough with some assumptions based around the impact of the construction of "with and without cc" or co-morbidities.

The national data we looked at provides us with unplanned activity split by:
- 0-2 day LOS
- 3 day LOS+

for all HRG4+ codes.

There were 2,756 HRG4+ codes in total. This included HRGs for children and trauma; some HRGs reflect planned inpatient activity and as a result will have 0 activity for unplanned care.

Using these data we are able to:

- identify potential HRGs and review associated ICD-10 codes for new clinical areas identified by national clinical leads
- highlight new clinical areas for consideration by national clinical leads

In order to support this decision making process we carried out the following analysis of HRG4+ activity. This analysis comprised of two assessments:

1. **specificity** which assessed if the proportion of 0-2 LOS of stay unplanned activity is high enough for the HRG to be an indicator of potential for AEC care. The cut-off point was 45%.
2. **substantial** which assessed if the volume of 0-2 LOS of stay activity was high enough to be considered.

There are two groups of HRGs – those associated with ICD-10 codes and those associated with OPCS codes. We considered those with ICD-10 codes only. Furthermore we did not consider those HRG4+s that did not match readily to current HRG payment system. Additional two clinical areas were identified through this process:

Other respiratory conditions

Inflammatory bowel disease

2 Directory of Clinical Conditions

Specialties

General Medicine

General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Deep vein thrombosis

HRG Codes and Detail

QZ20Z	Deep Vein Thrombosis

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	**Very High: >90%**

Specific Safety Issues (not Exhaustive)

Thrombophilia or possible malignancy.

Evidence

NICE: Venous thromboembolism:
http://bit.ly/1Uz4AhK

SHOW ICD-10 | HIDE ICD-10

Pulmonary embolism

HRG Codes and Detail

DZ09B	Pulmonary Embolus with Intermediate CC
DZ09C	Pulmonary Embolus without CC
DZ28Z	Pleurisy

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Massive vs non-massive pulmonary embolism.
Thrombophilia or possible malignancy.

Evidence

NICE: Venous thromboembolism:
http://bit.ly/1Uz4AhK

SHOW ICD-10 | HIDE ICD-10

General Medicine

Pneumothorax

HRG Codes and Detail	
DZ26A	Pneumothorax or Intrathoracic Injuries, with CC
DZ26B	Pneumothorax or Intrathoracic Injuries, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Primary pneumothorax only.
Clarity of success of aspiration.

Evidence

BTS: Pleural Disease Guideline:
http://bit.ly/1G0WFUh

SHOW ICD-10 | HIDE ICD-10

Pleural effusions

HRG Codes and Detail	
DZ16B	Pleural Effusion with Intermediate CC
DZ16C	Pleural Effusion without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Transudate vs exudate.
Para-pneumonic effusions.

Evidence

BTS: Pleural Disease Guideline:
http://bit.ly/1G0WFUh

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Asthma

HRG Codes and Detail	
DZ15E	Asthma without Intubation, with Intermediate CC
DZ15F	Asthma without Intubation, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Assessment of illness severity using BTS asthma guidelines and response to initial treatment.

Evidence

NICE: Asthma:
http://bit.ly/1WNxWiu

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Chronic obstructive pulmonary disease (COPD)

HRG Codes and Detail	
DZ21A	Chronic Obstructive Pulmonary Disease or Bronchitis, with length of stay 1 day or less, discharged home
DZ21J	Chronic Obstructive Pulmonary Disease or Bronchitis, without NIV, without Intubation, with Intermediate CC
DZ21K	Chronic Obstructive Pulmonary Disease or Bronchitis, without NIV, without Intubation, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

See Table 8 NICE COPD Guideline.

Evidence

NICE: Managing exacerbations of COPD:
http://bit.ly/1UuDTPm

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Community-acquired pneumonia

HRG Codes and Detail	
DZ11B	Lobar, Atypical or Viral Pneumonia, with Intermediate CC
DZ11C	Lobar, Atypical or Viral Pneumonia, without CC
DZ23B	Bronchopneumonia with Intermediate CC
DZ23C	Bronchopneumonia without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Clinical assessment and CURB-65 score – CURB-65 score of 0 or 1 suggests suitable for home treatment. BTS guidance suggests that a CURB-65 score of 2 be managed through short stay acute care or hospital supervised outpatient care. This decision is a matter for clinical judgement.

Evidence

NICE: Pneumonia:
http://bit.ly/1S5jgTY

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Lower respiratory tract infections without COPD

HRG Codes and Detail	
DZ22B	Unspecified Acute Lower Respiratory Infection with Intermediate CC
DZ22C	Unspecified Acute Lower Respiratory Infection without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

See Table 8 NICE COPD Guideline.

Evidence

NICE: Pneumonia: **http://bit.ly/1S5jgTY**

BTS: Cough in adults: **http://bit.ly/1OoRXJE**

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General Medicine

Congestive cardiac failure

HRG Codes and Detail	
EB03H	Heart Failure or Shock, with CC
EB03I	Heart Failure or Shock, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Reason for ecompensation.
Weight, renal and electrolyte monitoring.

Evidence

NICE: Acute heart failure: **http://bit.ly/1OoSeMN**

ESC: Acute and Chronic Heart Failure: **http://bit.ly/1OoSeMN**

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Supraventricular tachycardias & other unspecified tachycardias

HRG Codes and Detail	
EB07H	Arrhythmia or Conduction Disorders, with CC
EB07I	Arrhythmia or Conduction Disorders, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Cardiac and non-cardiac aetiology. Electrolyte and thyroid function. Underlying LV function. Pre-arrest criteria. Rate and/or rhythm control achieved before discharge.

Evidence

NICE: Atrial fibrillation: **http://bit.ly/1ZQPrwv**

ACC/AHA/ESC: Guidelines for the Management of Patients with Supraventricular Arrhythmias: **http://bit.ly/239VMVI**

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Low risk chest pain

HRG Codes and Detail	
EB01Z	Non-Interventional Acquired Cardiac Conditions
EB10Z	Actual or Suspected Myocardial Infarction
DZ28Z	Pleurisy

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Early risk stratification and streaming.

Evidence

NICE: Acute coronary syndromes:
http://bit.ly/1UP4eWY

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Transient ischaemic attack

HRG Codes and Detail	
AA29A	Transient Ischaemic Attack with CC
AA29B	Transient Ischaemic Attack without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

ABCD score 'Crescendo TIAs', ie more than one TIA in a week. Aetiology.
2° prophylaxis. Timeliness of accessto Carotid Doppler and neurovascular service.

Evidence

NICE: Stroke: **http://bit.ly/1XWWO8v**

Recommendation is for all suspected stroke to go to HASU.

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

First seizure	
HRG Codes and Detail	
AA26A	Muscular, Balance, Cranial or Peripheral Nerve Disorders, Epilepsy or Head Injury, with CC
AA26B	Muscular, Balance, Cranial or Peripheral Nerve Disorders, Epilepsy or Head Injury, without CC

% potential ambulatory care (primary ICD-10 coded admissions)			
Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)
Full recovery and no atypical features. Screening tests (glucose, sodium, calcium) stable. Neuro-imaging for focal seizure Appropriate specialty follow up. Driving advice.

Evidence
NICE: Epilepsy: **http://bit.ly/1QwpeOP**

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Seizure in known epileptic	
HRG Codes and Detail	
AA26A	Muscular, Balance, Cranial or Peripheral Nerve Disorders, Epilepsy or Head Injury, with CC
AA26B	Muscular, Balance, Cranial or Peripheral Nerve Disorders, Epilepsy or Head Injury, without CC

% potential ambulatory care (primary ICD-10 coded admissions)			
Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)
Seizure pattern. Trigger factors. Drug review.

Evidence
NICE: Epilepsy: **http://bit.ly/1QwpeOP**

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Acute headache

HRG Codes and Detail	
AA31A	Headache, Migraine or Cerebrospinal Fluid Leak, with CC
AA31B	Headache, Migraine or Cerebrospinal Fluid Leak, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Glasgow Coma Scale and focal signs. If sub-arachnoid haemorrhage suspected CT (OPCS 4.3 U05.1) +/- lumbar puncture (OPCS 4.3 A55.9).

Evidence

NICE: Headaches:
http://bit.ly/1XWXXwX

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Upper gastro-intestinal haemorrhage

HRG Codes and Detail	
FZ38E	Gastrointestinal Bleed, with length of stay 2 days or more, without Major CC
FZ38F	Gastrointestinal Bleed, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Haemodynamic assessment.Transfusion criteria.
Risk assessment using the postendoscopy Rockall Score or Blatchford Score.

Evidence

NICE: Acute upper gastrointestinal bleeding:
http://bit.ly/1XWXUB8

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Lower gastro-intestinal haemorrhage

HRG Codes and Detail	
FZ38E	Gastrointestinal Bleed, with length of stay 2 days or more, without Major CC
FZ38F	Gastrointestinal Bleed, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Haemodynamic assessment. Transfusion criteria. Access to flexible sigmoidoscopy/ colonoscopy (OPCS 4.3 H28.1 H28.8 H28.9 H25.1 H25.8 H25.9 H22.1 H22.8 H22.9).

Evidence

NICE: Suspected cancer recognition and referral: **http://bit.ly/1sGjufT**

SIGN: Management of acute upper and lower gastrointestinal bleeding: **http://bit.ly/1NRxU4H**

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Gastroenteritis

HRG Codes and Detail	
FZ36D	Intestinal Infectious Disorders, with length of stay 2 days or more, with Major CC
FZ36E	Intestinal Infectious Disorders, with length of stay 2 days or more, without Major CC
FZ36F	Intestinal Infectious Disorders, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Haemodynamic, renal and electrolyte assessment. Consider the possibility of inflammatory bowel disease and pseudomembranous colitis. Consider use of ambulatory IV hydration. Immediate triage and transfer to isolation cubicle, assessed by a Senior Doctor and admission avoided where clinically appropriate.

Evidence

CKS NICE: Gastroenteritis: **http://bit.ly/1S5pF1D**

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General Medicine

Painless obstructive jaundice

HRG Codes and Detail	
GC12A	Malignant Liver or Pancreatic Disorders, with length of stay 2 days or more
GC12B	Malignant Liver or Pancreatic Disorders, with length of stay 1 day or less
GC15C	Non-Malignant Liver Disorders with Major CCs
GC15D	Non-Malignant Liver Disorders without Major CCs
GC16C	Non-Malignant Pancreatic or Biliary Disorders, with Major CCs
GC16D	Non-Malignant Pancreatic or Biliary Disorders, without Major CCs

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Consider risk of ascending cholangitis. Coagulation status. Access to ultrasound/ CT scanning.

Evidence

CKS NICE: Jaundice in adults: **http://bit.ly/1UjAPEz**
BSG: Pancreatitis: **http://bit.ly/1UjAzFx**
BSG: Pancreatic cancer: **http://bit.ly/1S5pVgZ**
NICE: Suspected cancer recognition and referral: **http://bit.ly/1sGjufT**

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Abnormal liver function

HRG Codes and Detail	
GC12A	Malignant Liver or Pancreatic Disorders, with length of stay 2 days or more
GC12B	Malignant Liver or Pancreatic Disorders, with length of stay 1 day or less
GC15C	Non-Malignant Liver Disorders with Major CCs
GC15D	Non-Malignant Liver Disorders without Major CCs
GC16C	Non-Malignant Pancreatic or Biliary Disorders, with Major CCs
GC16D	Non-Malignant Pancreatic or Biliary Disorders, without Major CCs
GC01B	Liver Failure Disorders without Interventions

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Consider risk of ascending cholangitis. Coagulation status. Access to ultrasound/ CT scanning.

Evidence

CKS NICE: Hepatitis A: **http://bit.ly/25XE1ye**
NICE: Liver conditions: **http://bit.ly/1PtOcxA**

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Anaemia

HRG Codes and Detail	
SA01D	Aplastic Anaemia with CC
SA01F	Aplastic Anaemia without CC
SA03D	Haemolytic Anaemia with CC
SA03F	Haemolytic Anaemia without CC
SA04D	Iron Deficiency Anaemia with CC
SA04F	Iron Deficiency Anaemia without CC
SA05D	Megaloblastic Anaemia with CC
SA05F	Megaloblastic Anaemia without CC
SA06F	Myelodysplastic Syndrome without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Aetiology. Transfusion need is based on haemodynamic impact not on haemoglobin level.

Evidence

CKS NICE: Anaemia – iron deficiency: **http://bit.ly/1XprY7w**

CKS NICE: Anaemia – B12 and folate deficiency: **http://bit.ly/24QMuxa**

JPAC: Transfusion Handbook: **http://bit.ly/1sGph55**

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Hypoglycaemia

HRG Codes and Detail	
KB01A	Diabetes with Hypoglycaemic Disorders, 70 years and over
KB01B	Diabetes with Hypoglycaemic Disorders, 69 years and under

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Applies only in patients with diabetes receiving hypoglycaemic agents. Review of cause and education of patient required. More caution with sulphonylurea associated/long-acting insulin induced hypoglycaemia.

Evidence

NICE: Diabetes: **http://bit.ly/1ZR8HtG**

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Diabetes

HRG Codes and Detail	
KB01A	Diabetes with Hypoglycaemic Disorders, 70 years and over
KB01B	Diabetes with Hypoglycaemic Disorders, 69 years and under
KB02B	Diabetes with Hyperglycaemic Disorders, 70 years and over with Intermediate CC
KB02C	Diabetes with Hyperglycaemic Disorders, 70 years and over without CC
KB02E	Diabetes with Hyperglycaemic Disorders, 69 years and under with Intermediate CC
KB02F	Diabetes with Hyperglycaemic Disorders, 69 years and under without CC
KB03B	Diabetes with Lower Limb Complications, without Major CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Symptom severity assessment. Haemodynamic, renal and electrolyte status.

Evidence

NICE: Diabetes:
http://bit.ly/1ZR8HtG

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Cellulitis of limb

HRG Codes and Detail	
JD03B	Intermediate Skin Disorders Category 2, with Intermediate CC
JD03C	Intermediate Skin Disorders Category 2, without CC
JD04B	Intermediate Skin Disorders Category 1, with Intermediate CC
JD04C	Intermediate Skin Disorders Category 1, without CC
JD05B	Minor Skin Disorders Category 2, with Intermediate CC
JD05C	Minor Skin Disorders Category 2, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Exclude necrotising fasciitis. Class III and IV require admission. Ambulatory IV antibiotic policy with review of IV access site (OPCS 4.3 X28.1).

Evidence

CKS NICE: Cellulitis – acute: **http://bit.ly/1ye0qAx**

NICE: Antimicrobial stewardship: **http://bit.ly/1Q4J4FK**

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Known oesophageal stenosis (either stented or unstented)

HRG Codes and Detail	
FZ31E	Disorders of the Oesophagus, with length of stay 2 days or more, without Major CC
FZ31F	Disorders of the Oesophagus, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Aspiration pneumonia.
Oesophageal rupture/perforation

Evidence

NICE: Gastrointestinal cancers:
http://bit.ly/23afwZt

ASGE: The role of endoscopy in the evaluation and management of dysphagia:
http://bit.ly/1VZnCDb

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Enteral feeding tube complications

HRG Codes and Detail	
FZ33E	Small Intestinal Disorders, excluding Inflammatory Bowel Disease, with length of stay 1 day or less
FZ43B	Non-Malignant Stomach or Duodenum Disorders, with length of stay 2 days or more, without Major CC
FZ43C	Non-Malignant Stomach or Duodenum Disorders, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	**Very High: >90%**

Specific Safety Issues (not Exhaustive)

Local PEG re-insertion policy.
Maintenance of tract.

Evidence

NICE Guidelines (CG32): Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition:
http://bit.ly/1QlnzA1

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Acute admissions from care homes/non-acute NHS beds

HRG Codes and Detail

No HRG codes	Use admission codes and/or postcode of residence for large care homes. The latter is available from the CQC: **www.cqc.org.uk/content/how-get-and-re-use-cqc-information-and-data#directory**

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Scenario planning (eg advanced care directives including resuscitation) and review.
Rapid access to specialist multidisciplinary assessment. These include intermediate care beds, mental health beds and other community hospital beds.
In these situations, the principle should be to take the 'care to the patient and not the patient to the care' unless absolutely necessary.

Evidence

BGS: Medical care for older people: **http://bit.ly/1UcHvaA**
BGS: Acute medicine for older people: **http://bit.ly/1XpvQFI**
BGS: Silver Book: **http://bit.ly/1Hu4t3H**
NICE: Transition between inpatient hospital settings and community or care home settings for adults with social care needs overview: **http://bit.ly/1UPe1wd**

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Self-harm and accidental overdose

HRG Codes and Detail

WA11X	Poisoning, Toxic, Environmental and Unspecified Effects, with Intermediate CC
WA11Y	Poisoning, Toxic, Environmental and Unspecified Effects, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Suicide risk assessment. Rapid access mental health response (not just assessment) if physical risk from DSH does not require admission to an acute bed and significant suicide risk.

Evidence

NICE: Self-harm: **http://bit.ly/1UdbajR**
NICE: Depression: **http://bit.ly/1UjJ43e**

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General Medicine

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

End of life care

HRG Codes and Detail	
No HRG codes	The General Medical Council (GMC) defines patients 'approaching the end of life' when they are likely to die within the next 12 months. There are no specific HRG/ICD-10 codes. Review against local Palliative Care Cordinating Systems, GP registers and/or hospital records for patient preferences for place of care in the event of deterioration in their health including symtom management.

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Prior planning of potential scenarios including patient, family and multidisciplinary team (ie advance care directives). Rapid access to specialist ambulatory multi-disciplinary care.

Evidence

NICE Quality Standards: End of life care for adults: **http://bit.ly/1Md6sbP**

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Falls including syncope or collapse

HRG Codes and Detail	
EB08H	Syncope or Collapse, with CC
EB08I	Syncope or Collapse, without CC
WA22X	Other Specified Admissions or Counselling, with Intermediate CC
WA22Y	Other Specified Admissions or Counselling, without CC
WA23X	Falls without Specific Cause, with Intermediate CC
WA23Y	Falls without Specific Cause, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Exclusion of significant cardiovascular risk – eg high-grade AV block or high risk dysrhythmia. Osteoporosis assessment. Access to specialist falls assessment. If new onset of falls, consider acute illness as precipitant.

Evidence

NICE: Falls in older people: **http://bit.ly/1UPgmY7**

NICE: Osteoporosis: **http://bit.ly/1OpfLgF**

NICE: Transient loss of consciousness ('blackouts'): **http://bit.ly/1Uv7dVV**

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General Medicine

Urinary tract infections

HRG Codes and Detail	
LA04E	Kidney or Urinary Tract Infections, with length of stay 2 days or more, with Intermediate CC
LA04F	Kidney or Urinary Tract Infections, with length of stay 2 days or more, without CC
LA04G	Kidney or Urinary Tract Infections, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Impaired renal function – renal imaging. Bladder outflow obstruction. Foreign body. Increasing prevalence of multiresistant organisms especially with indwelling urinary catheters. Consider use of ambulatory IV hydration if dehydrated (OPCS4.3 X28.1). Pregnancy related UTI.

Evidence

CKS NICE: Urinary tract infection (lower) – men: **http://bit.ly/1Yrwy4A**

CKS NICE: Urinary tract infection (lower) – women: **http://bit.ly/1Q4TDIP**

NICE: Antimicrobial stewardship: **http://bit.ly/1Q4J4FK**

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Low risk acute kidney injury

HRG Codes and Detail	
LA07C	Acute Kidney Injury without CC
LA07G	Acute Kidney Injury without Interventions, with Intermediate CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Safety issues – monitor for signs of worsening AKI.

Evidence

NICE Guidelines (CG169): Acute kidney injury: prevention, detection and management: **http://bit.ly/2aCZFiE**

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General Medicine

Electrolyte disturbance

HRG Codes and Detail	
KC05B	Fluid and Electrolyte Disorders, 70 years and over with Intermediate CC
KC05C	Fluid and Electrolyte Disorders, 70 years and over without CC
KC05E	Fluid and Electrolyte Disorders, 69 years and under with Intermediate CC
KC05F	Fluid and Electrolyte Disorders, 69 years and under without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Patients with severe electrolyte abnormalities will require cardiac monitoring.

Evidence

NICE Guidance: Intravenous fluid therapy in adults in hospital: **http://bit.ly/2aevei3**

Patient.info: Hypokalaemia: **http://bit.ly/1UAopte**

The Renal Association: Treatment of acute hyperkalaemia in adults: **http://bit.ly/261zlav**

The Renal Association: CKD-Mineral and bone disorders (CKD-MBD): **http://bit.ly/1UAqyVE**

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Other respiratory conditions

HRG Codes and Detail	
DZ19B	Other Respiratory Diagnoses with Intermediate CC
DZ19C	Other Respiratory Diagnoses without CC
DZ25A	Fibrosis or Pneumoconiosis, with CC
DZ25B	Fibrosis or Pneumoconiosis, without CC
DZ27E	Respiratory Failure without Intubation, with Intermediate CC
DZ27F	Respiratory Failure without Intubation, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Assess for respiratory failure.

Evidence

BTS: Guidelines and Quality Standards: **http://bit.ly/2agyClm**

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General Medicine

Inflammatory bowel disease			
HRG Codes and Detail			
FZ37F	Inflammatory Bowel Disease, with length of stay 1 day or less		
FZ37H	Inflammatory Bowel Disease, with length of stay 2 days or more, without Interventions, with Major CC		
FZ37J	Inflammatory Bowel Disease, with length of stay 2 days or more, without Interventions, without Major CC		
% potential ambulatory care (primary ICD-10 coded admissions)			
Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%
Specific Safety Issues (not Exhaustive)			
Patients with abdominal pain, vomiting, fever and more severe symptoms will require in-patient care.			
Evidence			
NICE Quality Standard (QS81): Inflammatory Bowel Disease: **http://bit.ly/2aCXFa3**			

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Trauma and Orthopaedics

Trauma and Orthopaedics

Acutely hot painful joint	
HRG Codes and Detail	
HD23B	Inflammatory Spine, Joint or Connective Tissue Disorders, with Intermediate CC
HD23C	Inflammatory Spine, Joint or Connective Tissue Disorders, without CC
HD26B	Musculoskeletal Signs and Symptoms, with Intermediate CC
HD26C	Musculoskeletal Signs and Symptoms, without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very high: >90%

Specific Safety Issues (not Exhaustive)

Exclusion of septic arthritis.
Prosthetic joint sepsis.

Evidence

CKS NICE: Pre-patellar bursitis: **http://bit.ly/24VAQRS**

NICE: Arthritis: **http://bit.ly/1tAbCgC**

CKS NICE: Knee pain – assessment: **http://bit.ly/1WQPAlC**

BSR & BHPR, BOA, RCGP and BSAC: Guidelines for the management of the hot swollen joint in adults: **http://bit.ly/1XZciJ2**

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Appendicular fractures not requiring immediate internal fixation	
HRG Codes and Detail	
HA92Z	Knee Trauma Diagnosis without Procedure
HA93Z	Foot Trauma Diagnosis without Procedure
HA94Z	Arm Trauma Diagnosis without Procedure
HA95Z	Hand Trauma Diagnosis without Procedure
HB91Z	Other Non-Trauma Diagnosis without Procedure

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Neuro-vascular assessment. A significant proportion of those currently admitted are frail older people who have fallen and sustained a fracture. Consider acute illness precipitating the fall which resulted in the fracture. Admission only required if the acute precipitating illness requires admission in its own right. In those requiring internal fixation, consider the possibility of fast track day case surgery if feasible. Osteoporosis assessment and falls assessment where appropriate.

Evidence

NICE: Trauma: **http://bit.ly/1S8X7nG**

NICE: Falls in older people: **http://bit.ly/1UPgmY7**

CKS NICE: Osteoporosis: **http://bit.ly/1OpfLgF**

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Trauma and Orthopaedics

Non-traumatic vertebral fractures

HRG Codes and Detail	
HC27B	Degenerative Spinal Conditions with CC
HC27C	Degenerative Spinal Conditions without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	**Very High: >90%**

Specific Safety Issues (not Exhaustive)

Neuro-vascular assessment.
Consider metastatic disease or sepsis.
Osteoporosis assessment.

Evidence

NICE: Low back pain (early management): **http://bit.ly/23fYtp1**

NICE: Osteoarthritis: **http://bit.ly/23fY4CI**

NICE: Falls in older people: **http://bit.ly/1UPgmY7**

NICE: Osteoporosis: **http://bit.ly/1OpfLgF**

NICE: Suspected cancer recognition and referral: **http://bit.ly/1sGjufT**

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Low risk pubic rami fractures

HRG Codes and Detail	
HA91Z	Hip Trauma Diagnosis without Procedure

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	**Very High: >90%**

Specific Safety Issues (not Exhaustive)

Low energy fall.
Consider visceral injury.
Osteoporosis assessment and falls assessment.

Evidence

NICE: Hip fracture: **http://bit.ly/1Qbp5oZ**

NICE: Falls in older people: **http://bit.ly/1UPgmY7**

NICE: Osteoporosis: **http://bit.ly/1OpfLgF**

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Trauma and Orthopaedics

Hip pain secondary to a fall and non-weight bearing			
HRG Codes and Detail			
HA81B	Sprains, Strains or Minor Open Wounds, with Intermediate CC		
HA81C	Sprains, Strains or Minor Open Wounds, without CC		
% potential ambulatory care (primary ICD-10 coded admissions)			
Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%
Specific Safety Issues (not Exhaustive)			
These patients require same day MRI to exclude a fracture. Once a fracture is excluded, admission for pain relief and mobilisation should not be required unless aspiration of the joint is necessary.			
Evidence			
NICE: Hip fracture: **http://bit.ly/1Qbp5oZ** NICE: Falls in older people: **http://bit.ly/1UPgmY7** NICE: Osteoporosis: **http://bit.ly/1OpfLgF**			

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General Surgery

General Surgery

Acute abdominal pain not requiring operative intervention

HRG Codes and Detail	
FZ47A	Non-Malignant General Abdominal Disorders, with length of stay 2 days or more, with Major CC
FZ47B	Non-Malignant General Abdominal Disorders, with length of stay 2 days or more, without Major CC
FZ47C	Non-Malignant General Abdominal Disorders, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Rapid (same day) access to ultrasound/CT scanning.

Evidence

Health Technology Assessment: Systematic reviews of clinical decision tools for acute abdominal pain: **http://bit.ly/1Py9QRk**

Royal College of Surgeons: Emergency General Surgery commissioning guide: **http://bit.ly/1S9bzwd**

BADS: Ambulatory Emergency Care Handbook: **http://bit.ly/1QbP0wN**

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Abscesses requiring surgical drainage – perianal, breast wound

HRG Codes and Detail	
FZ21A	Major Anal Procedures, 19 years and over
FZ22A	Intermediate Anal Procedures, 19 years and over
FZ23A	Minor Anal Procedures, 19 years and over
FZ41E	Anal Disorders, with length of stay 2 days or more, without Major CC
FZ41F	Anal Disorders, with length of stay 1 day or less
JA13Z	Non-Malignant Breast Disorders
JA18B	Unilateral Minor Breast Procedures with Intermediate CC
JA18C	Unilateral Minor Breast Procedures without CC
JA19Z	Bilateral Minor Breast Procedures

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Consider conversion to fast-track day case surgery if cannot be drained in outpatient assessment area setting.

Evidence

CKS NICE: Pilonidal sinus disease: **http://bit.ly/1UncltW**

CKS NICE: Mastitis and breast abscess: **http://bit.ly/1tu7DBv**

ASCRS: Management of Perianal Abscess and Fistula-in-Ano: **http://bit.ly/1Pyc1nY**

NICE: Antimicrobial stewardship: **http://bit.ly/1Q4J4FK**

BADS: Ambulatory Emergency Care Handbook: **http://bit.ly/1QbP0wN**

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General Surgery

Head injury

HRG Codes and Detail	
HA83C	Head Injury without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

See NICE Guidelines.

Evidence

NICE: Head injury
http://bit.ly/28KjcoN

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Biliary colic

HRG Codes and Detail	
FZ47A	Non-Malignant General Abdominal Disorders, with length of stay 2 days or more, with Major CC
FZ47B	Non-Malignant General Abdominal Disorders, with length of stay 2 days or more, without Major CC
FZ47C	Non-Malignant General Abdominal Disorders, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Assess for acute cholecystits, cholangitis and pancreatitis which require in-patient care.

Evidence

AUGIS RCS: Commissioning Guide: Gallstone disease: **http://bit.ly/2avvN8g**

NICE: Gallstone disease: **http://bit.ly/28KCVF1**

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General Surgery

Painful hernia

HRG Codes and Detail	
FZ18B	Inguinal, Umbilical or Femoral Hernia Procedures, 19 years and over with Intermediate CC
FZ18C	Inguinal, Umbilical or Femoral Hernia Procedures, 19 years and over without CC
FZ39E	Hernia Disorders, with length of stay 2 days or more, without Major CC
FZ39F	Hernia Disorders, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Signs of strangulation or obstruction require emergency surgery.

Evidence

ASGBI, British Hernia Society, RCS: Commissioning Guide: Groin hernia: **http://bit.ly/2aD0KqE**

CKS NICE: Scrotal swellings: **http://bit.ly/1WRqfIk**

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Haemorrhoids

HRG Codes and Detail	
FZ21A	Major Anal Procedures, 19 years and over
FZ22A	Intermediate Anal Procedures, 19 years and over
FZ23A	Minor Anal Procedures, 19 years and over
FZ41E	Anal Disorders, with length of stay 2 days or more, without Major CC
FZ41F	Anal Disorders, with length of stay 1 day or less

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	**Very High: >90%**

Specific Safety Issues (not Exhaustive)

Evidence

CKS NICE: Haemorrhoids: **http://bit.ly/28KDHln**

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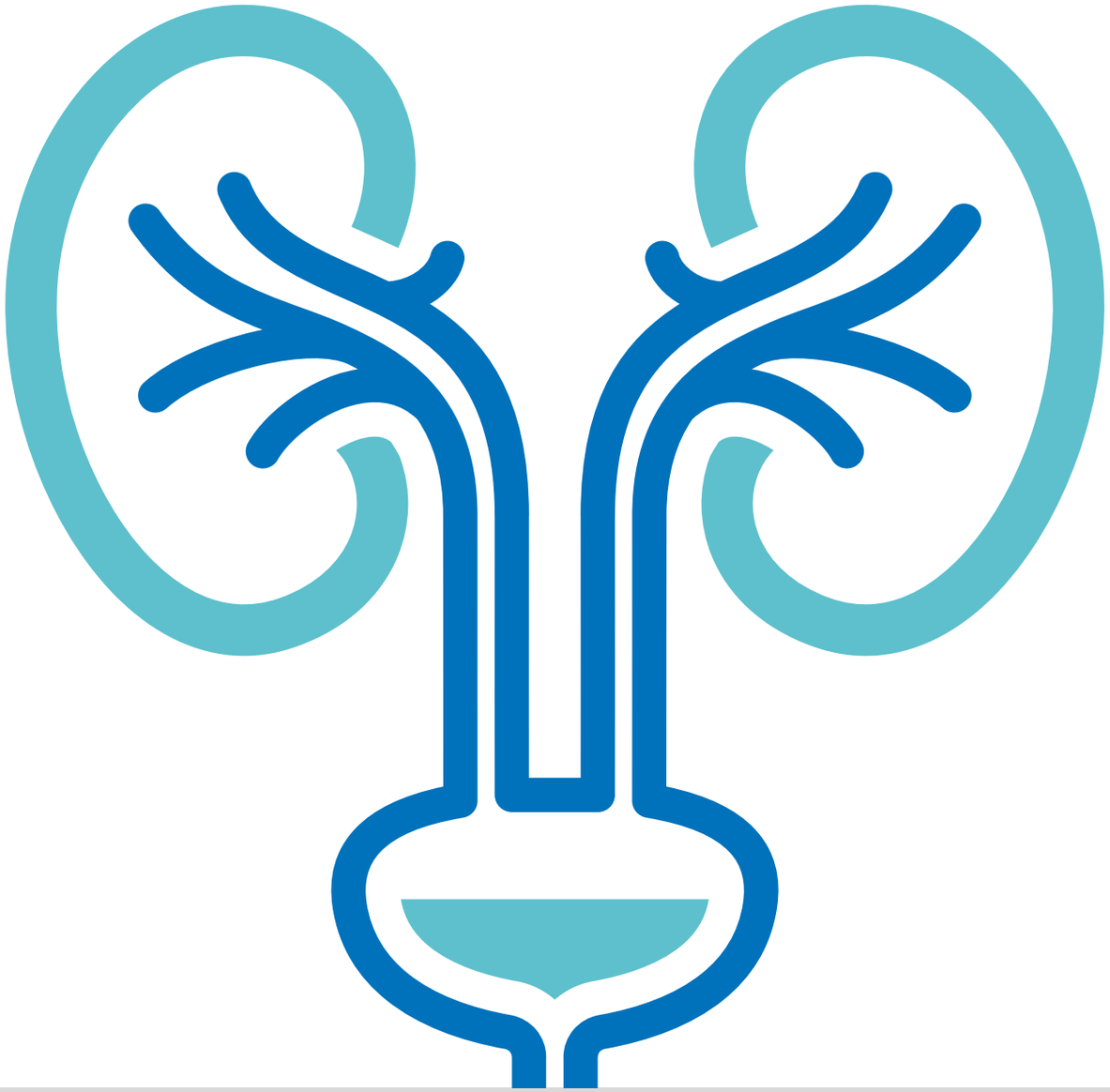
Urology



Urology

Acute painful bladder outflow obstruction

HRG Codes and Detail	
LB16B	Urinary Incontinence or Other Urinary Problems, with Intermediate CC
LB16C	Urinary Incontinence or Other Urinary Problems, without CC
LB28A	Non-Malignant Prostate Disorders with CC
LB28B	Non-Malignant Prostate Disorders without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Renal function.
Beware acute retention without pain.

Evidence

NICE: Lower urinary tract symptoms in men:
http://bit.ly/23gdyGW

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Renal/ureteric stones

HRG Codes and Detail	
LB40A	Urinary Tract Stone Disease with CC
LB40B	Urinary Tract Stone Disease without CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Beware single functioning kidney. Fever suggesting ascending sepsis.
Renal function. Persistent pain despite analgesia.

Evidence

CKS NICE: Renal or ureteric colic – acute:
http://bit.ly/1WReBx1

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Urology

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Gross haematuria

HRG Codes and Detail	
LA09F	General Renal Disorders with length of stay 2 days or more, with Intermediate CC
LA09G	General Renal Disorders with length of stay 2 days or more, without CC
LA09H	General Renal Disorders with length of stay 1 day or less
LB37A	Miscellaneous Urinary Tract Findings with CC
LB37B	Miscellaneous Urinary Tract Findings without CC
LB38A	Unspecified Haematuria with Major CC
LB38B	Unspecified Haematuria without Major CC

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Acute renal failure. Sepsis. Clot retention.

Evidence

British Association of Urological Surgeons: Haematuria: **http://bit.ly/261oVl6**

NICE: Lower urinary tract symptoms in men overview: **http://bit.ly/23gdyGW**

CKS NICE: Urological cancers – recognition and referral: **http://bit.ly/1XZoqd0**

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Chronic indwelling catheter related problems

HRG Codes and Detail	
LB15E	Minor Bladder Procedures, 19 years and over
LB20A	Infection or Mechanical Problems Related to Genito-Urinary Prostheses, Implants or Grafts, with CC
LB20B	Infection or Mechanical Problems Related to Genito-Urinary Prostheses, Implants or Grafts, without CC
LB18Z	Attention to Suprapubic Bladder Catheter

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%

Specific Safety Issues (not Exhaustive)

Sepsis. Acute renal impairment. HCAI risk.

Evidence

Healthcare Improvement Scotland: Urinary Catheterisation and Catheter Care: **http://bit.ly/1Zb2aeP**

RCN: Catheter care: **http://bit.ly/21qFTc7**

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Urology

Blue shaded condition/scenario cells indicate where nurses have identified a pathway that has the potential to be nurse and/or non-medical practitioner led; given advanced clinical skills and relevant training.

Acute scrotal pain			
HRG Codes and Detail			
LB35A	Scrotum, Testis or Vas Deferens Disorders with CC		
LB35B	Scrotum, Testis or Vas Deferens Disorders without CC		
% potential ambulatory care (primary ICD-10 coded admissions)			
Low: 10–30%	Moderate: 30–60%	**High: 60–90%**	Very High: >90%
Specific Safety Issues (not Exhaustive)			
US scan to assess risk of torsion.			
Evidence			
CKS NICE: Scrotal swellings **http://bit.ly/21qG6vZ**			

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Obstetrics and Gynaecology

Obstetrics and Gynaecology

Early pregnancy bleeding

HRG Codes and Detail	
MB08Z	Threatened or Spontaneous Miscarriage

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	Moderate: 30–60%	High: 60–90%	**Very High: >90%**

Specific Safety Issues (not Exhaustive)

Access to early pregnancy unit. Signs of sepsis or excessive bleeding. ERPC can be performed as a fast-track day case.

Evidence

NICE: Ectopic pregnancy and miscarriage
http://bit.ly/1WRhQEJ

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Hyperemesis gravidarum

HRG Codes and Detail	
NZ04D	Ante-natal or Post-natal Observation age under 16 or over 40 years with length of stay 0 days
NZ05C	Ante-natal or Post-natal Investigation age between 16 and 40 years with length of stay 0 days
NZ05D	Ante-natal or Post-natal Investigation age under 16 or over 40 years with length of stay 0 days
NZ08C	Ante-natal or Post-natal Investigation age between 16 and 40 years with length of stay 1 day or more
NZ08D	Ante-natal or Post-natal Investigation age under 16 or over 40 years with length of stay 1 day or more

% potential ambulatory care (primary ICD-10 coded admissions)

Low: 10–30%	**Moderate: 30–60%**	High: 60–90%	Very High: >90%

Specific Safety Issues (not Exhaustive)

Exclude other causes of vomiting. Frequency of review (possibly daily) in early pregnancy unit. Degree of ketonuria. Monitoring of electrolytes. Thiamine and folate supplementation. Consider use of ambulatory IV hydration.

Evidence

CKS NICE: Nausea/vomiting in pregnancy:
http://bit.ly/1UDMJXb

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Obstetrics and Gynaecology

Diseases of Bartholin's gland	
HRG Codes and Detail	
MA22Z	Lower Genital Tract Minor Procedures – Category 1
MA23Z	Lower Genital Tract Minor Procedures – Category 2
MB01A	Lower Genital Tract Disorders with CC
MB01B	Lower Genital Tract Disorders without CC
% potential ambulatory care (primary ICD-10 coded admissions)	
Low: 10–30%	Moderate: 30–60% / High: 60–90% / **Very High: >90%**
Specific Safety Issues (not Exhaustive)	
Fast-track day case surgery.	
Evidence	
NICE: Evidence search Bartholin Cyst **http://bit.ly/2aF0cCE**	

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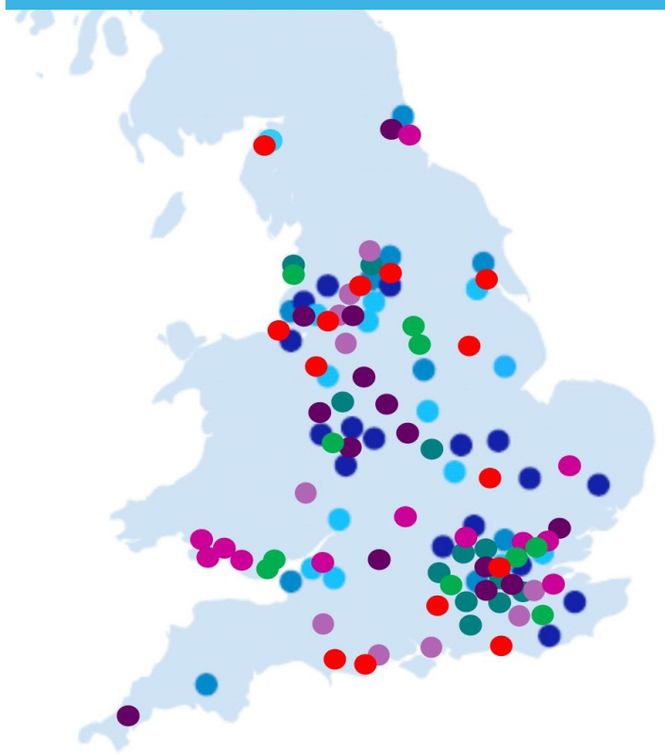
3 Further Information and Support for Implementing Ambulatory Emergency Care

Ambulatory Emergency Care Website

The field of AEC is constantly evolving and we hope that this Directory will act as an initial guide point for you to learn more about this work.

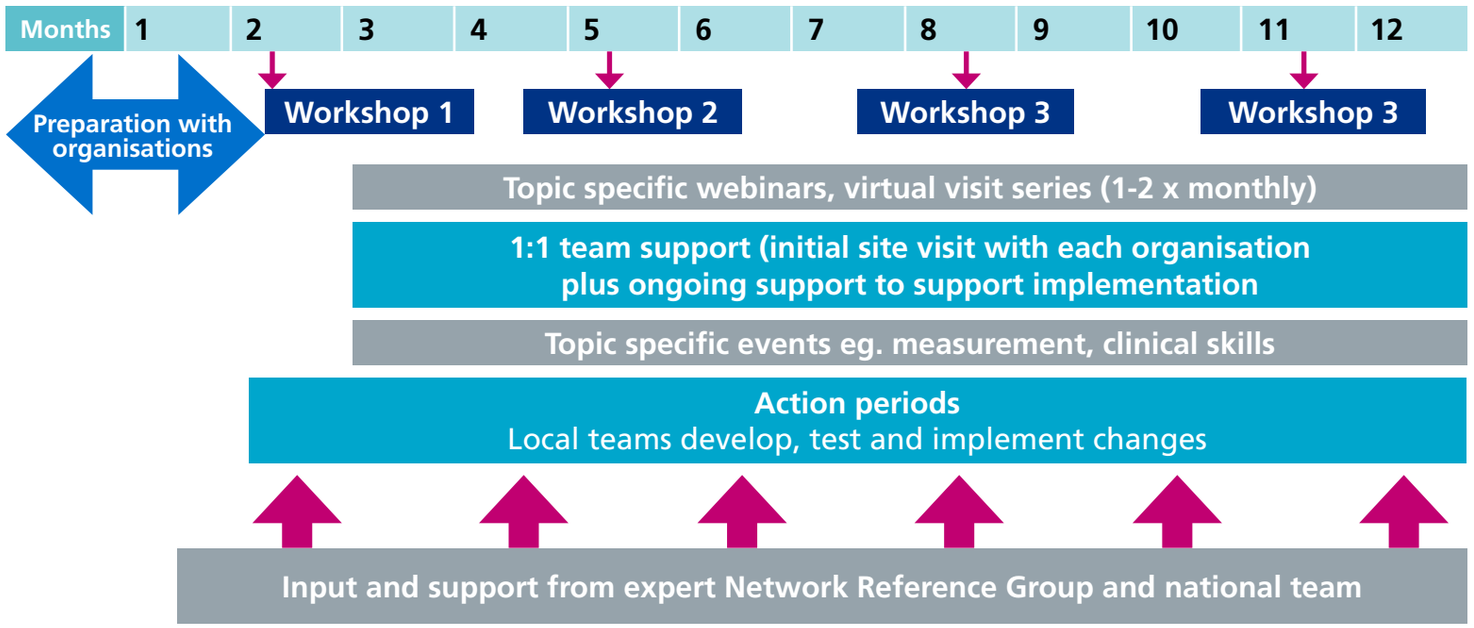
Further information, support, tools and ideas to help you are available from the AEC website: **www.ambulatoryemergencycare.org.uk**

Please visit the website for the latest ideas on AEC, join the discussion forum and actively contribute to the continued evolution of Ambulatory Emergency Care!



The Network has grown significantly since its inception in 2011. There are two waves of the programme in Spring and Autumn each year.

AEC Network Proposed Timeline 12 Month Programme



A significant network is emerging nationally with teams able to share best practice and support one another to implement proven changes quickly.

To Get Involved

If you would like to know more about AEC or participate in the next wave please contact us at **aec@nhselect.org.uk** or register your interest by going to our website **www.ambulatoryemergencycare.org.uk** and we will send you an information pack.

Acknowledgements

This Directory has been updated and remains true to the original design led by Dr Ian Sturgess.

For this edition we would like to thank the hard work of the review team, Dr Vincent Connolly, Deborah Thompson, Susanna Shouls, Cathy Pike and Andy Mitchell for undertaking this review and to Jim Mackey and Professor Jonathan Benger for their support in the forewards.

NHS Elect has provided the resources needed to make this edition possible.

Ambulatory Emergency Care

NHS Elect

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