

Surgical Ambulatory Emergency Care Network Toolkit



Foreword



Nationally, there is a clear ambition to provide Ambulatory Emergency Care (AEC) as an alternative to overnight admission. The aim is to improve the quality of care for emergency patients by streamlining processes and reducing delays. This produces a need to develop a common understanding of the principles that underpin high quality AEC.

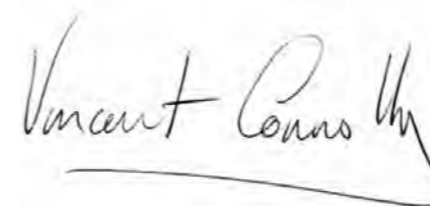
Through the AEC Network, there has been a reworking of the definition of AEC to take into account that AEC is focussed on delivering care to patients who would otherwise be admitted to an in-patient bed and also takes account of the large amount of work associated with discharging in-patients safely by offering an assured follow up process. There is currently very little data to indicate the direct impact of this element of AEC activity – the lack of a data definition and data set for AEC makes data analysis difficult but nationally we are working towards a solution for this. Watch this space!

Surgical AEC (SAEC) is becoming a movement and developing momentum. The model for surgery builds on eliminating unnecessary steps, front-loading senior decision making and co-ordinating the system to ensure investigation capacity and theatre availability are synchronised. For both medicine and surgery, AEC has challenged the way that senior doctors work and many have embraced this, recognising the benefits of early involvement in patient care alongside access to diagnostics.

AEC developed from the grassroots of the health service, an approach born of necessity to address the challenges of rising emergency admissions and hospital crowding. There have been, and remain for some, many challenges, in particular measurement of AEC activity, the financial model, staffing arrangements, location and environment for AEC services, and access to the service itself. Some of these can be resolved locally but others require intervention from NHS bodies to shape the system so that providing AEC services is made easier. Recently, a national steering group has been working closely with stakeholders to create national policy and an infrastructure that supports this model of care. Guidance and clarity on systems for AEC is expected as soon as 2019.

The AEC Directory serves as a blueprint to support the development of AEC both locally and nationally. This toolkit sets out the principles of AEC for surgery and explains what a good service should look like.

The challenge for us now is how far can AEC services develop? The SAMBA17 data showed that the vast majority of emergency admissions had a NEWS score of 2 or less – is this the same for surgery? Many of these patients could be offered AEC with the benefit of reduced in-patient stays, reduced crowding and better patient experience. With all of the benefits known about AEC, what is stopping you from designing a service for your patients?

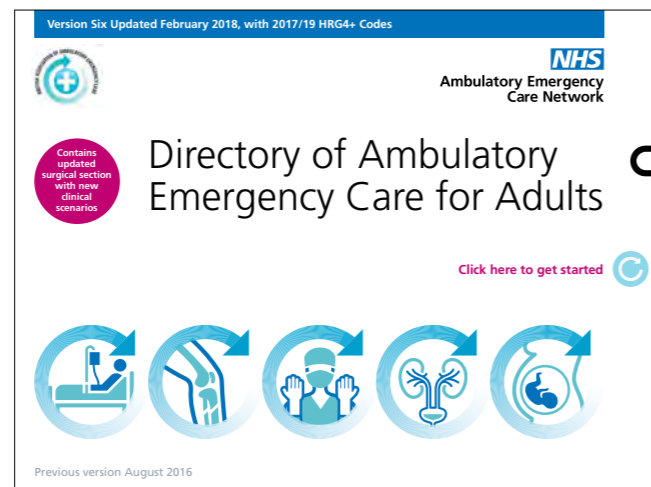


Dr Vincent Connolly
Regional Medical Director, North – NHS Improvement
President, British Association of Ambulatory Emergency Care

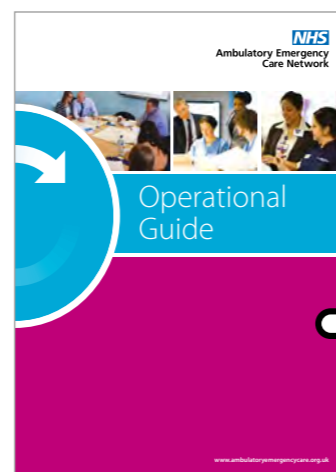
What is Ambulatory Emergency Care (AEC)?

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

The model for AEC was originally developed in Acute Medicine and over recent years this has evolved and systems have redesigned emergency care pathways to provide same day emergency care for appropriate clinical scenarios. The model and clinical scenarios are fully explained in the Directory of Emergency Care for Adults 6th Edition. To access, please click on the image below. This toolkit should be used in conjunction with the Directory.



An Operational Guide has also been developed to help teams design an effective, efficient AEC service. Click on the image to find out more.



Surgical specialties (SAEC)

A number of units are developing Surgical AEC pathways and this has recently become an area of great interest. Teams have approached this in a variety 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 or Triage Unit. As medical AEC originated with the development of pathways for deep vein thrombosis (DVT), surgical AEC has evolved from abscess pathways.

This short animated film has been developed to explain the SAEC model to operational teams, stakeholders and patients. Click on the image below to find out more.



SAEC has been shown to provide safe, effective and patient-centred care for many adult surgical conditions. These include (but are not restricted to) peri-anal conditions, painful non-obstructed hernia, right iliac fossa pain (mild appendicitis, non-specific abdominal pain and pelvic conditions), right upper quadrant pain (symptomatic gallstones), post-operative/wound issues and mild diverticulitis. Well-established SAEC units report seeing at least 30% of patients referred urgently from General Practitioners (GPs) or the Emergency Department (ED).



TOOLKIT NOTE

You can navigate to the principles within this toolkit by clicking the principle header in this side bar.



Index

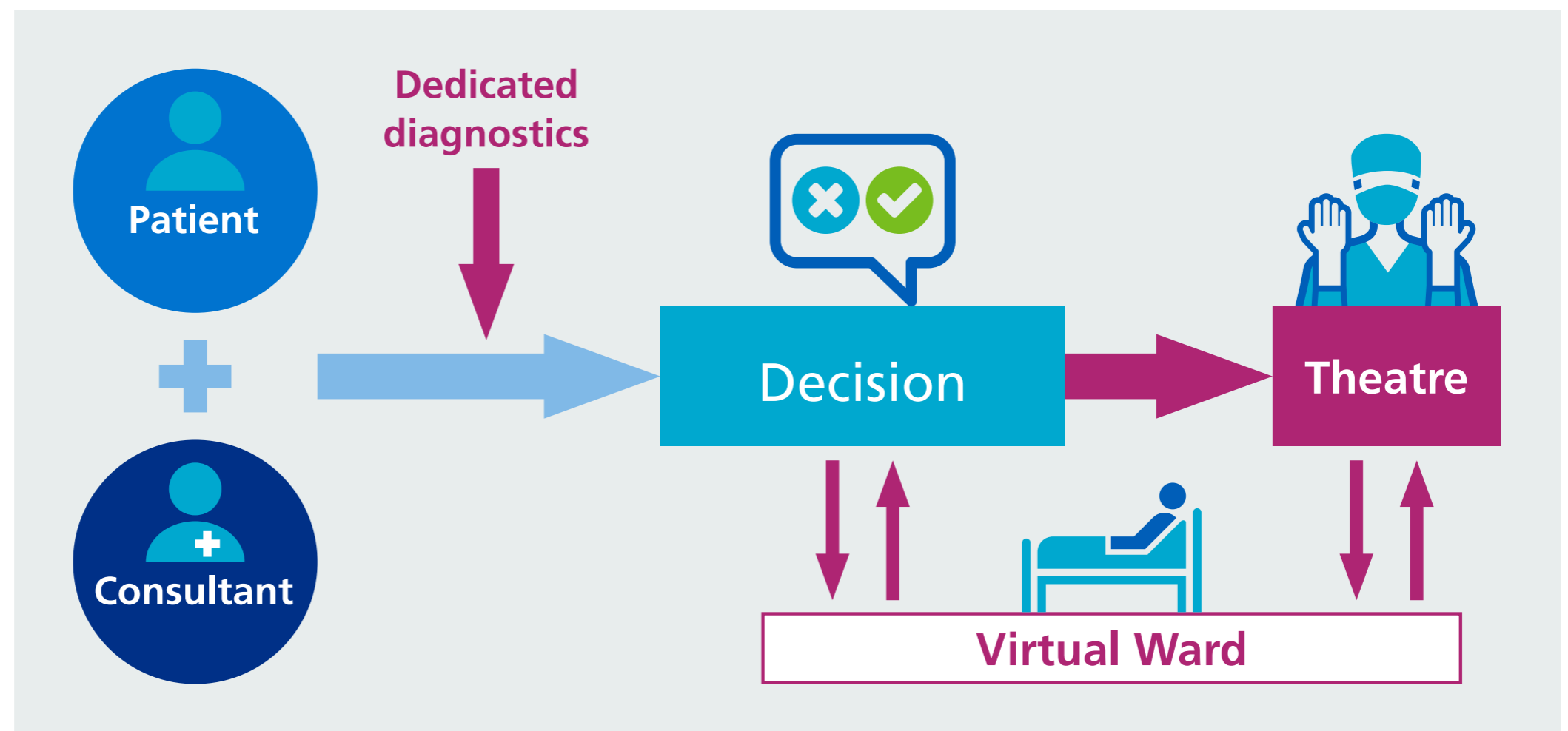
What is Surgical Ambulatory Emergency Care?	5
Principle 1: Referrals should be process driven	7
Principle 2: Consultant-led and delivered	9
Principle 3: Rapid access to diagnostics	12
Principle 4: Rapid access to theatre	14
Principle 5: Early supported discharge	16
Principle 6: The virtual ward	18
Principle 7: Documentation and safety netting	20
Principle 8: The SAEC Unit should be run from a designated, protected area	22
Principle 9: Mechanisms are needed to avoid unnecessary referrals to SAEC	24
Principle 10: Nurse Practitioners and other health care professionals with extended skills	26
Principle 11: Developing measures, including patient experience	28
Principle 12: Tariff	32
Conclusion	34
Participating sites	35

What is Surgical Ambulatory Emergency Care?

The SAEC pathway should provide streamlined efficient assessment, investigation and treatment (including surgery), avoiding delays in the patient journey through the hospital system (Figure 1). The expectation is that a good service should avoid unnecessary steps, delays and duplication that add no value to patient care. The SAEC pathway must be safe, with robust mechanisms where failure of

ambulant care is rapidly recognised and patient care converted to traditional in-patient management as needed. A conversion rate from SAEC management to admission is seen in approximately 10-15% of patients and is considered illustrative of an SAEC that is safe with robust systems in place. Where possible, minimal access surgical techniques are encouraged.

Figure 1 SAEC Model of Care



Patients managed in SAEC include (but are not restricted to) patients with peri-anal conditions, painful non-obstructed hernia, right iliac fossa pain (mild appendicitis, non-specific abdominal pain and pelvic conditions), right upper quadrant pain (symptomatic gallstones), post-operative/wound issues and mild diverticulitis. Well-established SAEC units report managing at least 30% of

patients referred urgently from GPs or ED for surgical admission. Assessment, investigations and treatment are managed without overnight admission to hospital.

The principles that SAEC units should consider when developing their service are listed in Figure 2 below, and fully explained in this toolkit.

Figure 2 SAEC Principles *You can also navigate to the principles by clicking the bars in this list.*

- 3** Rapid access to diagnostics
- 4** Rapid access to theatres
- 5** Early supported discharge
- 6** The virtual ward
- 7** Documentation and safety netting
- 8** The SAEC Unit should be run from a designated, protected area
- 9** Mechanisms are needed to avoid unnecessary referrals to SAEC
- 10** Nurse Practitioners and other healthcare professionals with extended skills
- 11** Developing measures, including patient experience
- 12** Tariff

Principle 1

Referrals should be process driven



Referrals to SAEC should ideally avoid restrictive protocols. Within reason, all adult non-elective referrals to the 'on-call' surgical team should be directed to SAEC from a single point of access, if patients are well enough to wait for this. This should be determined after a clinical conversation with the referring health care professional (usually GP, ED doctor or a member of the surgical team). However, inevitably there are 'high volume' conditions that are better suited to ambulatory care as suggested above and these can be protocol driven and streamed directly to SAEC.

Royal United Hospitals Bath NHS Foundation Trust

The following conditions are particularly suitable and are seen in SAEC at Royal United Hospitals Bath NHS Foundation Trust (RUH).

- Abscesses – torso and peri-anal
- Right iliac fossa pain
- Right upper quadrant pain
- Painful jaundice
- Small volume PR bleed
- Mild diverticulitis
- Painful non-obstructed hernia
- Post-operative or wound issues
- Early supported discharges

All emergency referrals received from local GPs and the ED are processed by a doctor or Nurse Practitioner. A clinical conversation occurs to establish if a patient can wait until the next SAEC appointment (usually the next morning) or needs to be seen by the 'take' team the same day. If suitable for SAEC, the patient is given an information leaflet detailing where to come, starting instructions and what to do should they deteriorate overnight.

Patients may also be sent home to reattend SAEC after being assessed by the 'take' team if they are stable. They can return next day for clinical review, further investigation (often ultrasound), or even theatre on the dedicated SAEC theatre list.

Initially patients with concurrent illness, poor mobility or cognitive or communication issues were excluded from SAEC at RUH. However, as the pathway has developed the team has learned that these patients do particularly well with a one-stop review by a consultant with imaging, and can often get home within hours, avoiding a lengthy deconditioning hospital stay.

The RUH SAEC was developed in May 2013 and since then it has seen over 7,800 patients and saved approximately 160 bed stays per month.

Principle 2

Consultant-led and delivered



Ideally, SAEC should be led and delivered by a Consultant Surgeon. There is evidence that initiatives led by senior clinicians are more likely to succeed and the more senior the clinician the more likely they are to take clinical risk and manage patients effectively on ambulant pathways.

Individual units may develop bespoke methods and working patterns to allow the consultant surgeon to deliver the emergency surgical service. A key factor in facilitating this is to separate the EGS from elective and other surgical duties and to job plan appropriately and accurately.

Departmental managers and clinicians should work constructively and positively together to understand the pressures of an emergency take. By working together, units should be able to develop job plans which allow surgeons to commit to the acute cases, delivering excellent service and outcomes, whilst not suffering negatively from the stresses associated with emergency surgery.

Wythenshawe Hospital, Manchester University NHS Foundation Trust

The SAEC service at Wythenshawe Hospital is led and delivered by a dedicated Emergency General Surgeon (EGS).

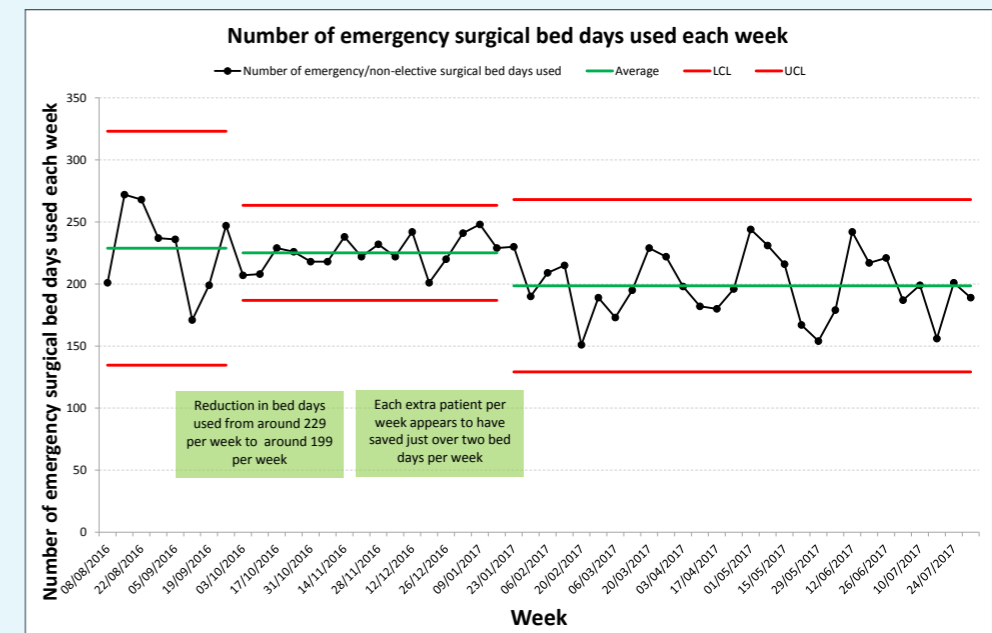
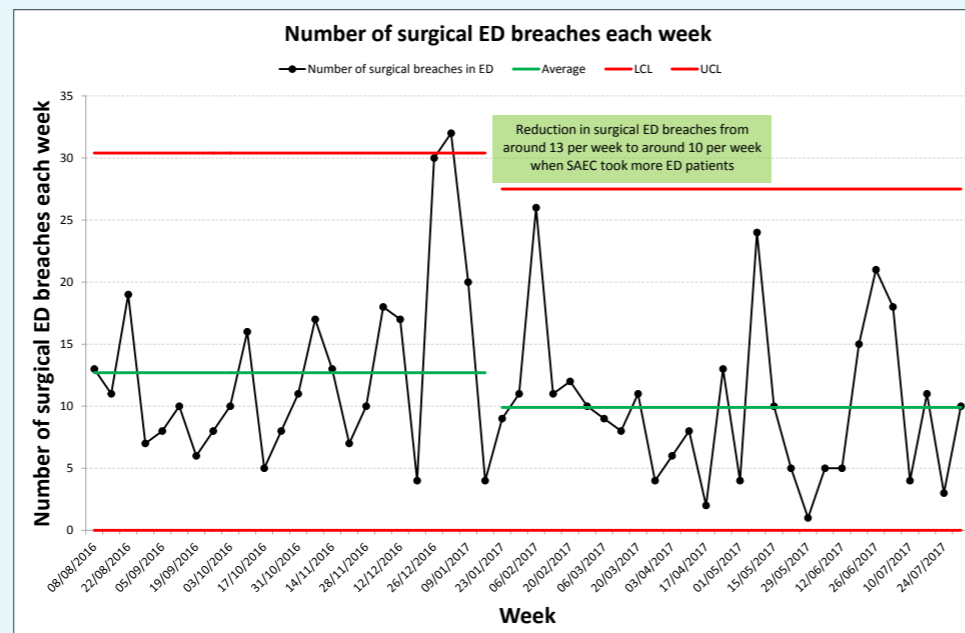
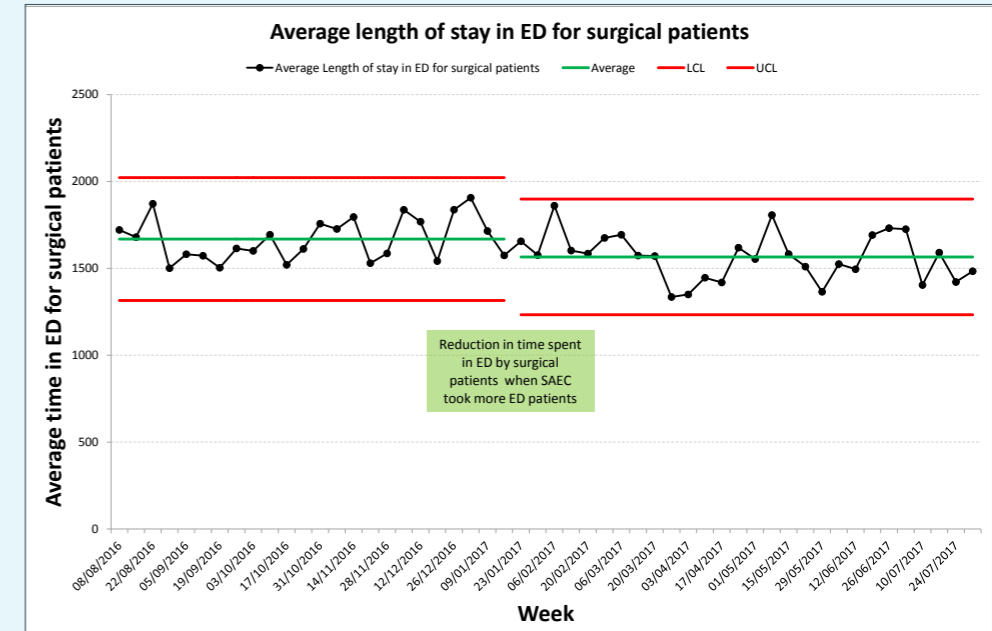
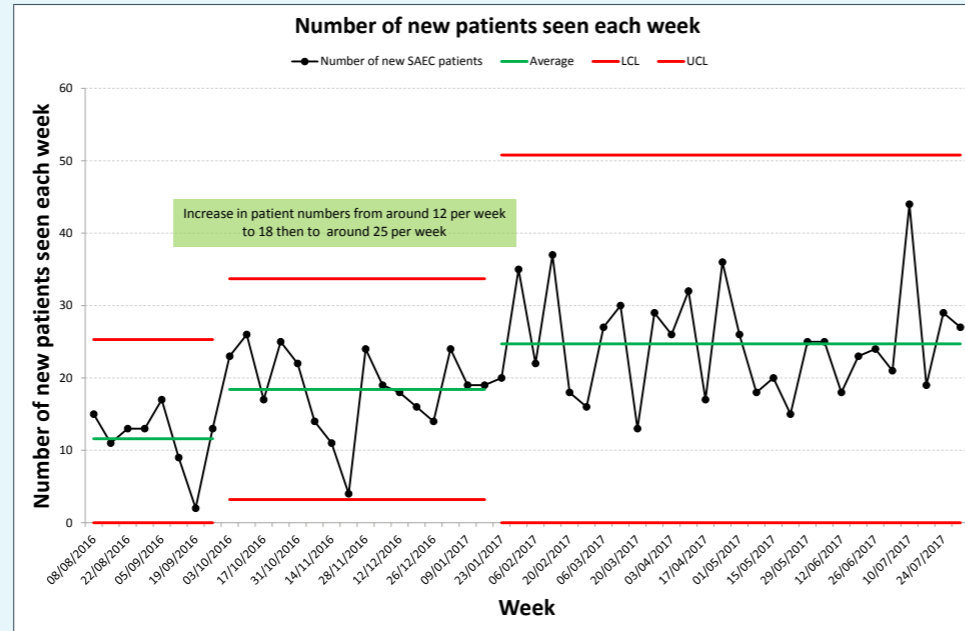
This model provides access to a consistent source of senior decision making and allows greater surgical presence in ED to actively pull appropriate patients through to SAEC. This active pulling of patients ensures a wider scope of surgical patients get to the right place of care sooner, whilst also releasing ED capacity to manage other patients and reduce overcrowding.

The EGS consultant also has a strong presence in the SAEC unit delivering hands on care rather than simply directing and overseeing the service. This ensures the pace of care is delivered consistently and any waste is reduced by avoiding unnecessary over-investigation/management by junior staff.

Using this approach, improvements have been demonstrated not only in terms of the relevant metrics but also, importantly, in reduced variation which allows further developments to be planned and delivered with greater confidence of success across the system.

This EGS consultant delivered model, combined with simple but carefully designed processes, has enabled an increase in appropriate activity from ED and GP streams. This is reflected in quality and impact metrics such as time spent by patients in the ED department, the number of surgical breeches and occupied bed day usage of surgical emergency patients. Apart from the clinical delivery of the service, the involvement of the EGS consultant in all aspects of service design and ongoing investigation of the operational data has led to a model that is high quality, patient focussed and sustainable.

See example graphs on the following page >



Principle 3

Rapid access to diagnostics



Successful SAECs will have rapid access to dedicated ultrasound (current figures from fully functioning SAECs suggest up to 65% of patients will require an abdominal or pelvic ultrasound reflecting pathology). The gold standard is an ultra-sonographer co-located on the SAEC or Surgical Assessment Unit (SAU), but ring-fenced slots for SAEC patients are also acceptable. It is also advisable for

SAECs to have rapid access to CT and MRI (expect 8% of SAEC patients to require cross-sectional imaging). These scans should be given the same scheduling priority as ED scans and some successful units ring-fence a single CT or MRI slot for use each day. Rapid access to diagnostics will enable treatment decisions to be made rapidly and be key in any decisions regarding operative treatment.

The Royal London Hospital, Barts Health NHS Trust

The Royal London Hospital has taken the approach of building its service in small steps and gradually expanding the scope of patients seen in SAEC.

This has allowed the team to understand how each change they make affects the wider system and work with their stakeholders collaboratively.

The service began with a simple focus on improving the experience for patients with abscesses and has now expanded into a wide range of conditions. A recent focus for improvements has been the management of patients with biliary symptoms. The team began by looking at the current biliary pathway, identifying the issues that caused delay and understanding how these led to a poor patient experience. They then looked at the activity that would be moved from the inpatient bed base to SAEC and also the level of variability within this. This approach gave the SAEC team a solid foundation for opening discussions with their specialist biliary team, theatres and radiology teams. They were then able to describe the aim of the proposed changes, the likely impact and also be clear that this was not new activity for any of their stakeholders.

Options for delivering radiology support to this pathway were considered, including a department sonographer, ringfenced lists and internal professional standards. Unfortunately a department sonographer was not feasible at that time so the team continued to work through the best solution within their current resource. As the volume of activity appeared to be highly predictable, ringfenced lists were trialled through a PDSA (plan, do, study, act) approach in order to ensure that the size of list and time of scheduling supported effective patient flow. Ringfenced lists are linked with the availability of the biliary team so that patients receive their scan, diagnosis and management plan rapidly in the same visit. This then flows through to operating lists, enabling patients to have surgery during their index episode and avoid repeated biliary flare-ups and unscheduled emergency admissions that can result from delayed 'cold' surgery.

The SAEC/biliary team are able to demonstrate significant bed day savings using this ambulatory management model and early patient data suggests huge improvements to the patient experience.

Principle 4

Rapid access to theatres



Patients seen in SAEC requiring urgent surgery can still be managed on an ambulant/day-case pathway if there is a mechanism to provide timely access to theatre slots. The gold standard is a dedicated day case list for these patients that run with frequency sufficient to meet demand.

Other centres ring-fence slots on the NCEPOD or elective lists but this is often less reliable. Access to theatre should not be a constraint when designing a service as pilot sites report only 10% of patients seen in SAEC require same day surgery.

The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust

At The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust, the team worked together to understand the aim of setting up an SAEC service. They then worked together as a multidisciplinary team to devise a driver diagram (see Figure 3) outlining the drivers and associated actions needed to set up an effective, efficient SAEC service.

Whilst they were unable to create a dedicated theatre list, they did agree that SAEC patients requiring surgery would be listed on that days NCEPOD list. The impact of their service redesign can be seen in Figure 4.

Figure 3 Driver diagram

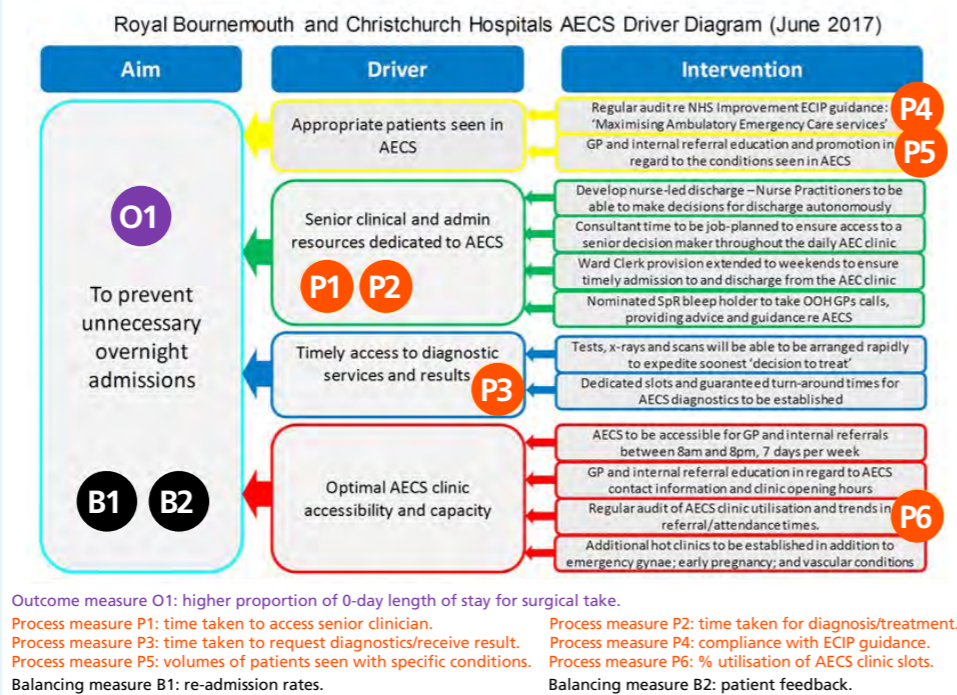
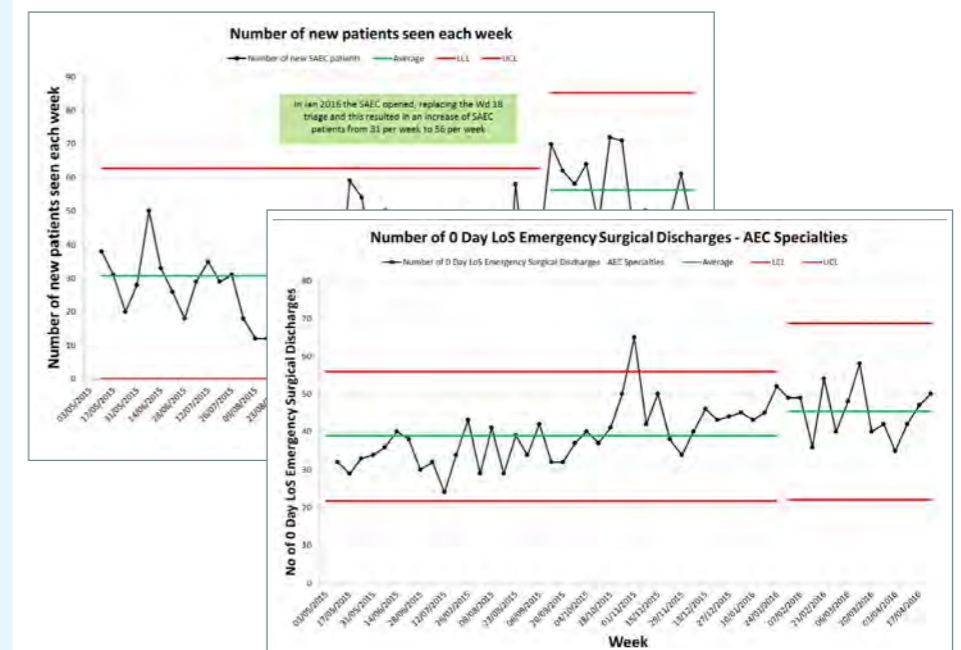


Figure 4 Impact graphs



Principle 5

Early supported discharge



As SAEC has developed, it has become clear that the service can also support the early discharge of patients who have been managed on a traditional in-patient pathway (both emergency and elective). Centres with a robust SAEC service report a reduced length of stay for patients, as they are discharged earlier with appropriate SAEC follow up.

Examples of patients that benefit from this service include those with wound/VAC issues, complex colorectal issues, drains in-situ, grumbling inflammatory markers and high output stomas.



Principle 6

The virtual ward



Patients seen in SAEC should be supported by a virtual ward where required. These patients may include those awaiting urgent surgery, awaiting results or those that have had a recent SAEC review. Using a virtual ward, there should be processes in place to allow patients to rapidly return to SAEC if they clinically deteriorate. Nurse practitioners (see below) should be responsible for overseeing the ward and seeking Consultant input when needed.

Royal United Hospitals Bath NHS Foundation Trust

It's not as complex as it might sound!

At the RUH all patients seen in SAEC who require any further input are managed in the virtual ward and this is overseen by Surgical Nurse Practitioners (SNPs). These may be patients awaiting surgery, results or just their first appointment. For example, the SNPs give patients with non-specific abdominal pain seen in SAEC a call the next day to ensure they remain clinically well, and they also do all the post-op phone calls on day one and two after patients have had same day emergency surgery through SAEC.

At the RUH, this activity is managed through a wall white board and all phone contact with patients documented on the electronic record system. Communication between Consultants and the SNPs needs to be very robust to support this.

The SNPs are increasingly the first port of call for any patient who has recently had a general surgical admission and the team now share their telephone number at discharge with elective patients so they can flag any post-operative problems early.

Feedback from patients is very positive.

“I felt very reassured after your call last week.”

“It's so good to have a number to phone.”

“Thank you for the follow up, it's much appreciated.”

Principle 7

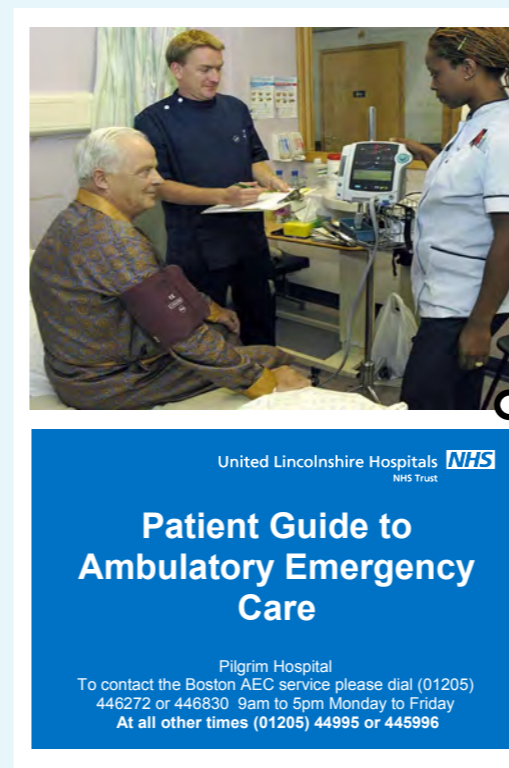
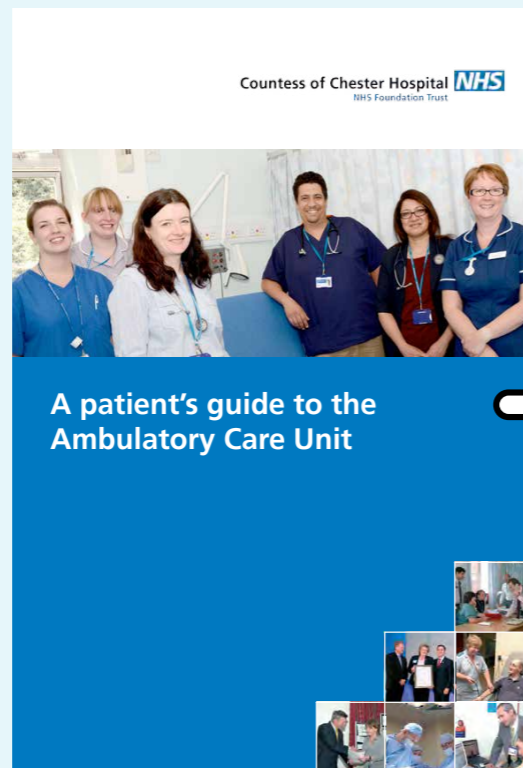
Documentation and safety netting



Leaflets, documentation and telephone numbers should be given to patients at the first point of contact to ensure they know how to access medical support if they deteriorate, either whilst in the virtual ward or awaiting SAEC review. Information should be given to the patient when an SAEC appointment is generated, explaining what to expect from the appointment and any fasting requirements. Following SAEC review, the GP and patient should ideally receive a clinical letter within 48 hours. This will detail their presenting problem, investigation, any further management and relevant safety-netting precautions.

Useful documents

Click on the images below to access the documents.



Principle 8

The SAEC Unit should be run from a designated, protected area

Ambulatory Care Unit

To enter
press button
& wait
for assistance



PLEASE USE
OTHER DOOR
→

PLEASE USE
OTHER DOOR
→

Ideally, this would be trolley-based and co-located with SAU. The area must categorically **not be** used for in-patients in times of escalation. It is important to have a designated space with designated staff to achieve the maximum impact of SAEC.

Creating a team allows processes to be developed and engenders a mind set and pace to achieve same day care. There is a risk this will not be achieved when the service shares space.

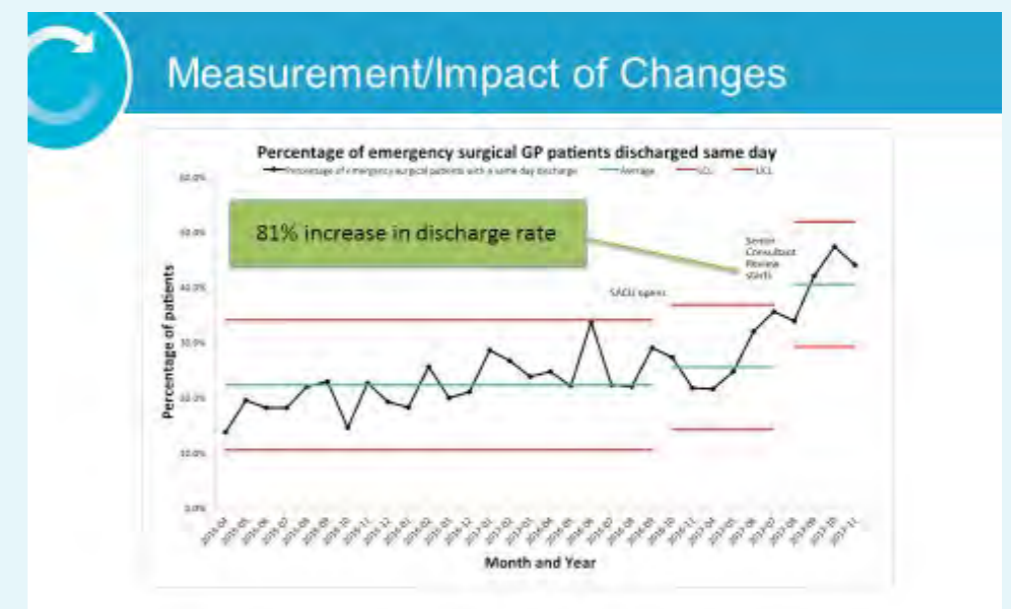
Mid Cheshire Hospitals NHS Foundation Trust

The Surgical Ambulatory Care Unit at Mid Cheshire Hospitals NHS FT opened in September 2016 and was initially operational Monday to Friday, 12:00 to 20:00. Staffing consisted of one registered nurse and two health care assistants (HCAs), and an Advanced Nurse Practitioner with a senior clinician available to undertake patient reviews.

The Unit receives GP General Surgery referrals for assessment, and since opening the number of patients streamed from the surgical take have increased from 28% to approximately 50%, with 60% of the surgical take achieved in January 2018. With this shift to same day emergency care there has been an average length of stay saving of 21 hours, with patients staying in the unit for an average of 4.2 hours.

Same day discharges have risen by 15%, and has been consistently around the 50% mark for the last five months since introducing senior review and has been as high as 100% on certain days. Patients are being discharged home to return for planned emergency procedures instead of waiting in a bed until a slot becomes available and 95% of patients are receiving review within four hours. 60% of these patients are seen within two hours.

Readmission rates are monitored as a balancing measure, and found to be between 1.4% and 4.4%. Patient experience is also monitored via the Friends and Family Test, with 96% of patients likely to recommend the Unit. There is also lots of positive feedback received from staff, patients and their families.



Principle 9

Mechanisms are needed to avoid unnecessary referrals to SAEC



Patients seen in SAEC should be admission avoidance patients or early facilitated discharge patients, and not patients who would normally be seen on a two-week wait basis or managed by other outpatient pathways. Patient selection is a key step to ensure that those most likely to benefit will be able to access SAEC Services. Patient selection should be based on:

- clinical stability established by recording a NEWS and a clinical discussion;
- AEC being the best place to meet the patient's clinical needs; and
- staffing and facilities being such as to ensure the patient's privacy and dignity are maintained

Therefore any stable surgical patient requiring acute admission should be considered for SAEC.

It is important to ensure the 'wrong' patients are not referred to AEC as this will block capacity and deny access to the service for patients who would most benefit from same day services. The following groups should **NOT** be managed in an AEC service:

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

In addition, the SAEC unit is not a discharge lounge nor a 'overflow' unit for other services. Sending the wrong patients to SAEC will have a negative impact on the system. With this in mind, robust gatekeeping processes are needed to ensure the right patients are streamed to the service. It is important to work with management, bed bureau and ED teams to agree selection processes and maintain them. Where staff are pressured to accept the wrong type of patient there should be an escalation process in place for senior management to provide support and to prevent inappropriate referrals being accepted into the service.



Principle 10

Nurse Practitioners and other health care professionals with extended skills



The role of the emergency SNP (ESNP) is crucial in supporting the virtual ward and providing continuity of care. In forward thinking SAECs, the ESNPs are undertaking local anaesthetic incision and drainage of non-perineal abscesses. ESNPs can also run independent nurse led clinics reviewing early supported discharge patients. They are also crucial in complex wound management, IV therapies and maintaining continuity of care. The benefits they bring are both in service delivery and in continuity of care.

In terms of service delivery the ESNP team could be expected to manage the majority of follow up care both in person and virtually. This system is best supported by each patient having a clear management and follow up plan set at the first encounter and close liaison with the SAEC consultant. The ESNP can easily manage all simple abscesses under local anaesthesia in the unit procedure room, once appropriately trained, which frees up considerable consultant time for managing more complex patients. They are also key in complex post-operative wound management and drain care for those discharged with a drain in-situ. Patients are very happy to be managed by senior nurses in this role as they experience a highly personal service and minimise the delays caused by handoffs of care.

ESNPs are also a stable and continuous presence in the SAEC Unit providing continuity for patients when medical staff may vary on each visit. Training grade doctors can be used in SAEC and where properly planned and supported this is seen as a very positive practice. Having the stability of the ESNP workforce mitigates the unavoidable disruption caused by staff turnover. Staff movement can also allow some mission creep to occur over time which depletes the effectiveness of the service – the nursing team along with the clinical lead are key in ensuring the aims of the service are met consistently.



An important consideration for ESNPs is their line management in an environment such as SAEC. The most effective model is where this is shared by the Clinical Lead and Nursing Lead. The Clinical Lead is able to support and develop their advanced clinical practice and provide strong governance, while the Nursing Lead provides management and professional support. This can present some challenges for medical staff in terms of the time required to support ESNPs – the non-medical prescribing course for example has a statutory requirement of 78 hours supervised practice. This support should be built into jobs plans and scheduled to ensure that it is taking place as planned.

Principle 11

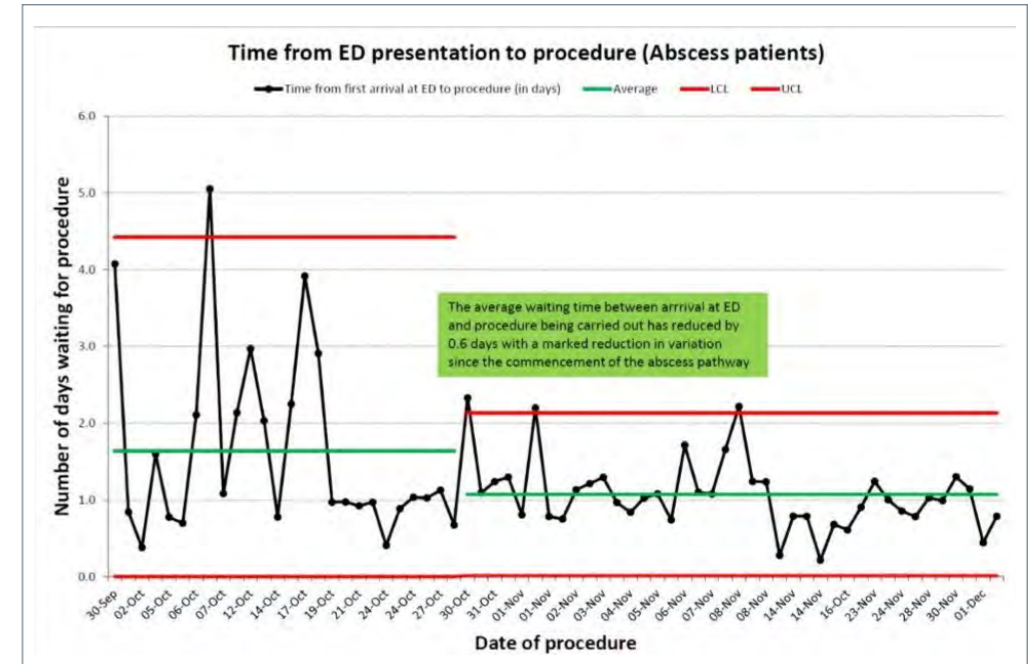
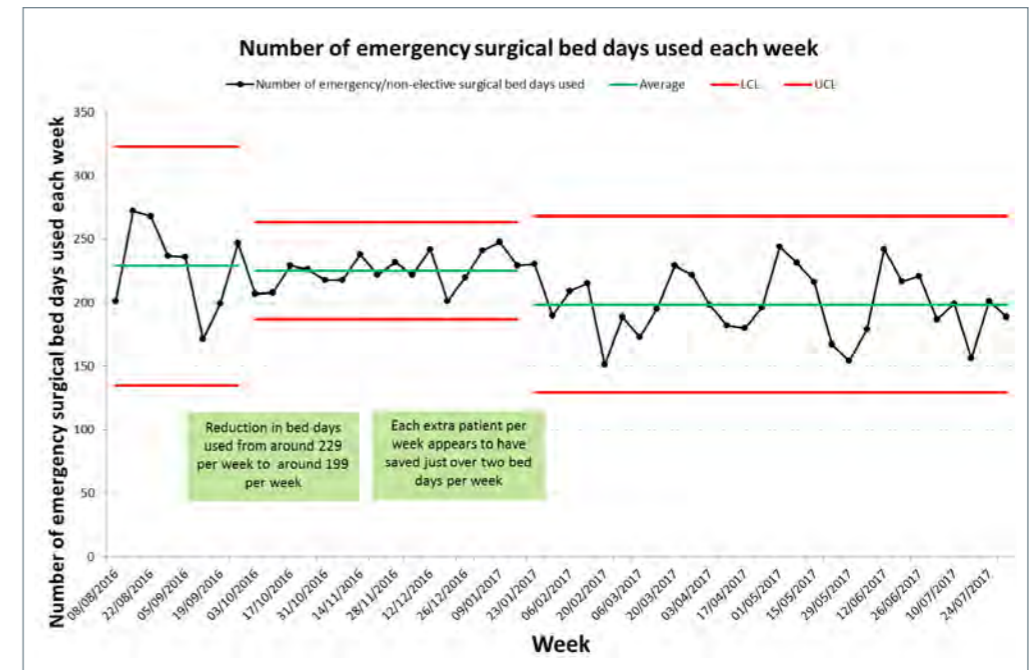
Developing measures, including patient experience



Data should be collected and used to inform service improvements at all stages of the evolution of your SAEC service. Baseline metrics should be established by the project team before implementing SAEC to allow the impact to be assessed and again before each subsequent test of change. This should include metrics like referral numbers, referral source, non-elective length of stay, non-elective pre-operative length of stay and number of occupied bed days used. It is also helpful to have knowledge of outcomes and diagnoses to identify patient cohorts which may be suitable for SAEC. Patient and staff experience data are also important and both can be impacted by changes to the service.

Setting up a successful SAEC service requires many changes to be tested and implemented. It also involves many health professionals and can cross inter-organisational boundaries. Change can also have unexpected consequences for patients, individual staff members and services. It is therefore essential that change is accompanied by a robust and sustainable approach to measurement. The right measures answer the question 'How will we know that change is an improvement?'. After all, it is improvement that we are seeking, not just a change from the present way of doing things. This type of practical everyday measurement is not something the NHS is used to or necessarily very good at. You will need to work at creating and using the right measures to help you know where you are at.

You will need a reliable approach to choosing the right measures and then collecting the data and displaying it. The NHS Elect Measurement for Improvement Guide takes you through just such a process. Ensure that your wider team is familiar with it and use the Measures Checklist to quality assure your measurement process. To access, please click on the image below.



The Measurement Guide introduces you to the seven steps to measurement:

Step 1 Define aim

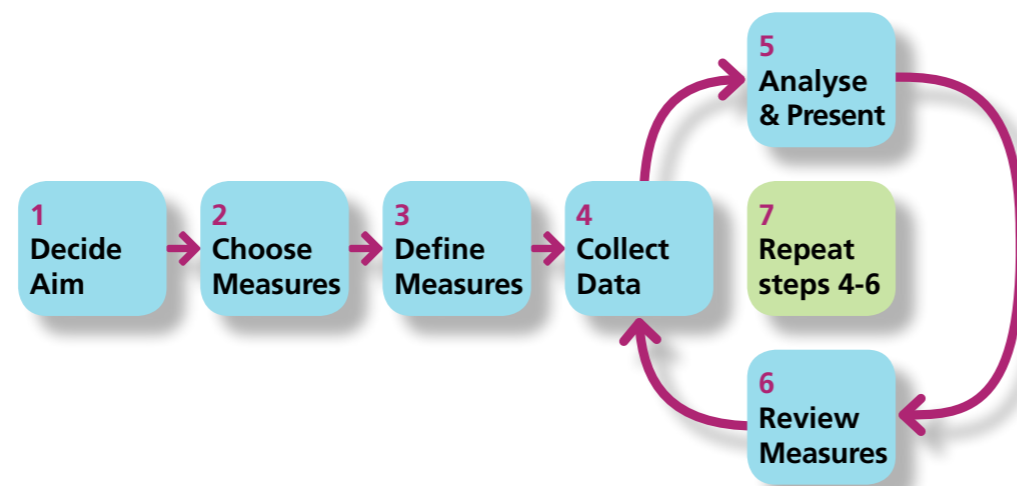
For the cohort of patients targeted by an SAEC service, reducing overnight admissions without effecting readmissions':

Without a clear 'outcome' based aim, it will be difficult to decide what improvements you need to implement in order to try and meet the aim. Mid Cheshire Hospitals' initial aim included ... 'avoid unnecessary overnight admissions, thereby improving flow and capacity of emergency surgery patients through the hospital'. In the measurement visit we explored what unnecessary meant, and ended the session with a clear plan about what to measure in order to see if the project will be a success.

Steps 2 and 3 Choose and define measures

Use the Measures Checklist to define your measure(s):

All sites are encouraged to use the 'Measures Checklist' (available from the interactive PDF – Measurement for Improvement Guide on our website) to ensure they understand how to clearly define the outcome, process and balancing measures that they are going to collect. All sites create a driver diagram to start to understand that process measures (shown on the right hand side of the diagram) will help achieve the aim (shown on the left hand side of the diagram).



Step 4 Collect data

PDSA implementation of an abscess pathway: The Royal London Hospital is a good example of how to use the PDSA cycle for testing change around the introduction of a new pathway. They collected some baseline data before making a change (by implementing the new pathway) so that they had a better understanding of how their pathway was currently performing. By working in this way, they were also well placed to demonstrate the impact of the new pathway.

Step 5 Analyse and present

If you have completed the first four steps you can do any type of analysis with confidence (using SAEC Network tools on the website, and analytical support). Wythenshawe Hospital collected and analysed data covering key steps during the evolution of their service to be able to show the impact that each step was having on numbers of patients being seen in SAEC (process measure) and the number of overnight admissions of emergency surgical patients and the associated bed days used (outcome measures).

Steps 6 and 7 Review and repeat

Using the PDSA approach

PDSA methodology is recommended for testing changes. There are four stages to the PDSA cycle:

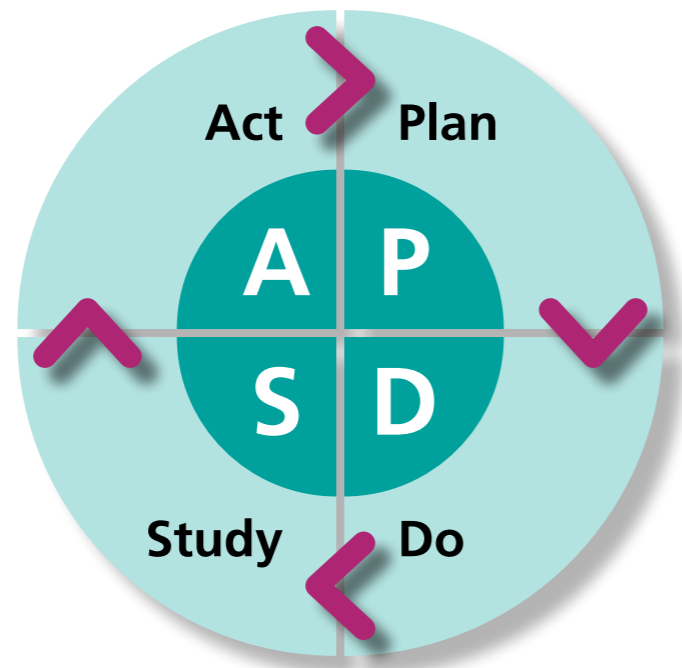
Plan – the change to be tested or implemented

Do – carry out the test or change

Study – data before and after the change and reflect on what was learned

Act – plan the next change cycle or full implementation

You may not get the results you expect when making changes to your processes, so it is safer and more effective to test out improvements on a small scale before fully implementing.



Running a series of PDSA cycles has a number of advantages:

- You can learn and adapt after each test.
- It increases the degree of belief in the changes amongst stakeholders.
- It builds a common understanding of what you're trying to achieve.
- You can evaluate costs and any possible side effects that couldn't be fully anticipated.
- It reduces the total lead time of full implementation.
- You can test ideas under different conditions.

What measures might you use?

You will want to measure the effect of changes you are making at two quite different levels across your health and social care system.

Firstly there is the local or micro-level. This is bespoke measurement to inform local, internal quality improvement initiatives or to inform PDSA cycles. Measurement here needs to be tailored to the aim of the specific project. This means that your results will almost certainly not be comparable with elsewhere because you will be using different measures or apparently similar measures that are defined subtly differently.

Then there is the service or meso-level. This is assessing the impact of service developments on the emergency care pathway for surgical patients. It is at this level that we showed the example of using the seven steps approach above. Candidate metrics include:

- Number of emergency surgical bed admissions of at least one night in hospital
- The number of emergency surgical bed days used by those admissions
- Waiting time from presentation at the hospital until procedure is carried out
- A&E four hour standard performance
- Waiting time in ED for emergency surgical patients
- Number of breaches for emergency surgical patients
- Number of outliers (or some other measure of bed availability/occupancy)
- Cancellations of elective activity due to lack of surgical beds
- Sheer volume of procedures carried out in theatres (as you aim to increase theatre utilisation)

Typical activity metrics that sites have found helpful include:

- The number of emergency surgical referrals (the surgical take)
- The number of new SAEC patients
- The number of follow-up SAEC patients
- Where the patients came from (e.g. ED, GP, wards etc.)
- Where the patients went to (e.g. home, specialty wards etc.)
- Length of stay on your SAEC Unit (broken down to: time to first assessment, time to diagnosis, time to decision, time to treatment/discharge, if possible)
- An analysis of what conditions were seen/treated most often (Pareto chart)

Principle 12

Tariff



Tariff can be an issue and we recommend commissioners are involved early in your project setup to inform and agree financial flows for the service. Best practice day-case tariffs can be negotiated for qualifying surgical patients.

Royal United Hospitals Bath NHS Foundation Trust

A local tariff for SAEC was agreed by the three local CCGs at the RUH in 2013. This was achieved after heavy commissioner involvement in a six month pilot in 2013. Over this period of time, patients who were seen in the new SAEC Unit were counted as admission activity until new costings could be agreed.

Total numbers of patients, investigations, time in SAEC, need for surgery and bed savings were carefully collected. After six months the Trust was able to illustrate significant potential savings to the CCGs over a non-elective admission tariff (a projected £392k per annum to the CCGs).

A new tariff for these patients was agreed on a trial basis initially and after a year on a permanent basis. This tariff is significantly higher than a standard out-patient tariff and fairly reflects the activity and resource required to run an effective SAEC.

Conclusion

Ultimately a fully resourced and adequately staffed SAEC encourages the ethos of rapid patient assessment rather than admission for emergency surgical patients. These units are also able to give rapid advice to other health care professionals based in the community. SAEC units are now highly skilled in the ambulant management of patients with a host of surgical conditions but particularly abscess, acute biliary conditions, painful hernia, appendicitis, diverticulitis and post-operative complications. Minimal access laparoscopic techniques are used extensively to reduce recovery times. However, the scope of SAEC is going through a period of rapid development and as such the clinical scenarios and coding listed in the AEC Directory will be updated as evidence becomes available.

Clinical teams that are keen to develop an effective SAEC service should sit down together with stakeholders across the system and consider the principles described in the Toolkit. In doing this, the team should assess whether the principle is currently incorporated into their system. If it is not, the system and processes should be reviewed to understand why and what it would take to adopt the principle.

**To find out more about the SAEC model please
go to www.ambulatoryemergencycare.org.uk/Surgical-AEC
or email aec@nhselect.org.uk**

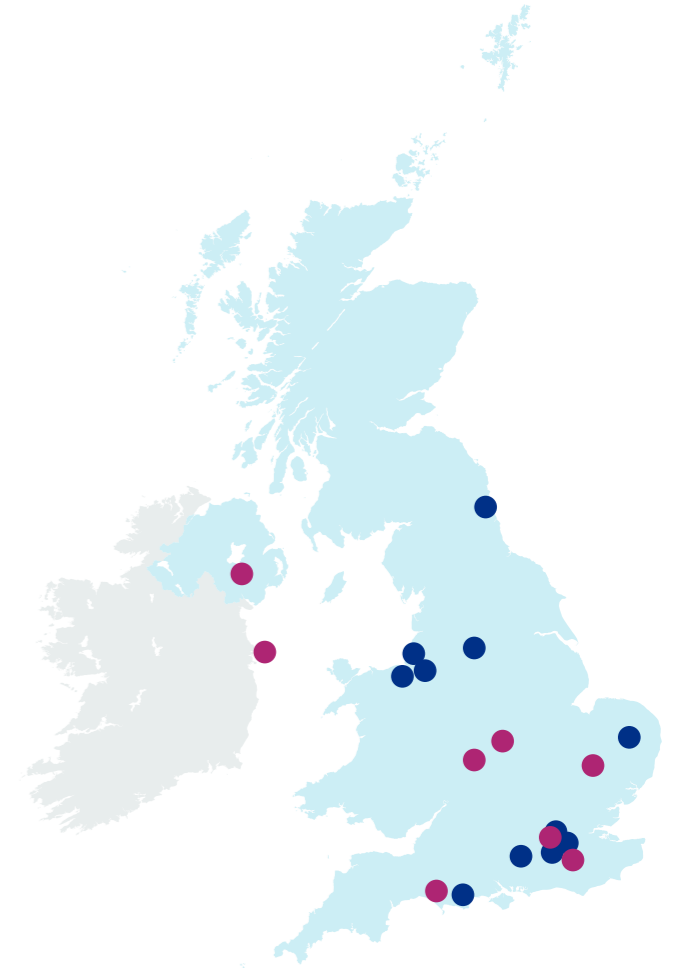
Participating sites

Cohort One

- Barts Health NHS Trust
- Frimley Health NHS Foundation Trust
- Kingston Hospital NHS Foundation Trust
- Manchester University NHS Foundation Trust
- Mid Cheshire Hospitals NHS Foundation Trust
- Norfolk and Norwich University Hospitals NHS Foundation Trust
- St Helens and Knowsley Teaching Hospitals NHS Trust
- The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
- Whittington Health NHS Trust
- Wirral University Teaching Hospital NHS Foundation Trust

Cohort Two

- Aintree University Hospital NHS Foundation Trust
- Craigavon Area Hospital, Ireland
- Dorset County Hospital NHS Foundation Trust
- Kings College Hospital NHS Foundation Trust – Denmark Hill Hospital
- Kings College Hospital NHS Foundation Trust – Princess Royal University Hospital
- University Hospitals Coventry and Warwickshire NHS Trust
- University Hospitals of Leicester NHS Trust
- West Suffolk NHS NHS Foundation Trust



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This guide was developed by Miss Sarah Richards FRCS, Emergency Surgeon at United Hospitals Bath NHS Foundation Trust with the Ambulatory Emergency Care Network Team.

Authors: Miss Sarah Richards, Deborah Thompson, Mike Holmes, Andy Mitchell and Mr Arin Saha

Supported by: Cathy Pike and Emma Backhouse

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Surgical Ambulatory Emergency Care Network

SAEC is hosted by NHS Elect

Email: aec@nhselect.org.uk

www.ambulatoryemergencycare.org.uk

Email: info@nhselect.org.uk

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