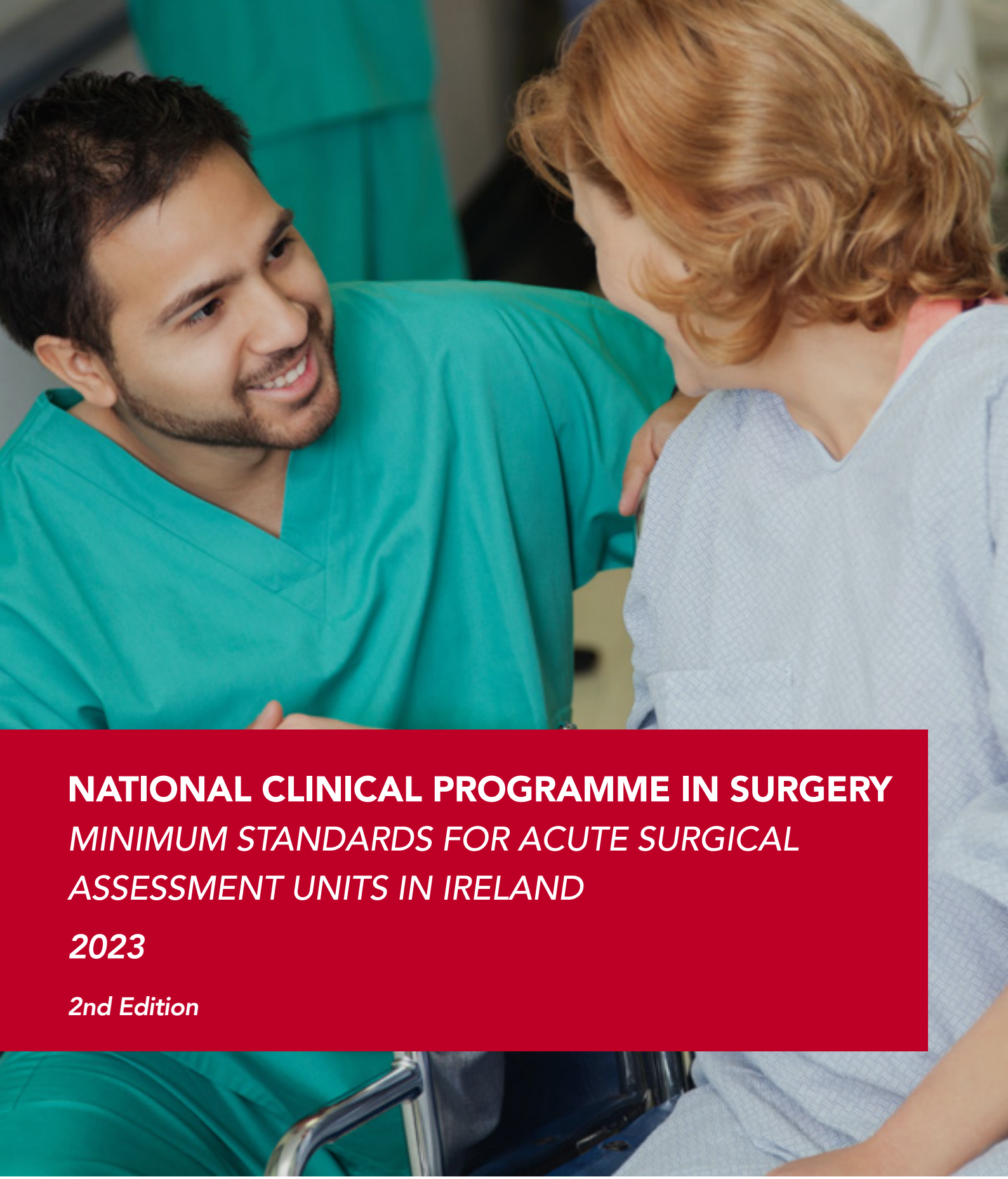


NATIONAL CLINICAL PROGRAMME IN SURGERY

MINIMUM STANDARDS FOR ACUTE SURGICAL ASSESSMENT UNITS IN IRELAND

2023

2nd Edition

ROYAL COLLEGE OF SURGEONS IN IRELAND

NATIONAL CLINICAL PROGRAMME IN SURGERY

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REVISION HISTORY
First Edition November 2017
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Executive Summary

Acute Surgical Assessment Units (ASAUs), have reshaped the way that we deliver unscheduled care to patients who present to higher volume hospitals with an acute surgical condition. ASAUs allow senior surgical decision makers to see patients promptly, facilitating efficient and effective care. This initiative aligns with Goal 2 of the Sláintecare Implementation Strategy of providing high quality, accessible, safe care that meets the needs of the population and, importantly, promotes patient satisfaction.

The development and expansion of ASAUs is an important component of the 'Model of Care for Acute Surgery', published by the NCPS in 2013, and is a joint initiative with the National Clinical Adviser and Group Lead (NCAGL), colleagues in HSE Acute Operations, and the Healthcare Pricing Office. Patient feedback via formal surveys has been very positive and encouraging.

ASAUs in Ireland have now been running for a number of years. Our experience to date has shown us that benefits of an ASAU include:

- Admissions are concentrated in one area allowing rapid transfer from the Emergency Department (ED) or direct referral from Primary Care
- Defined protocols allow nurse triage from the ED and Primary Care for a specific cohort of surgical patients
- Emergencies can be quickly prioritised by experienced staff
- Consultant-led assessment can be provided regularly throughout the day
- Same-day imaging and diagnostics are made available and provided for
- Nurse-led early discharges can be facilitated
- ED waiting time targets are supported

To ensure standardisation along with service and quality improvement, these guidelines will be reviewed every three years. This is the first review and update of these Standards which will be used to support the validation process for Acute Surgical Assessment Units (ASAUs) in Irish Public Hospitals.

As part of this review, a number of key changes to the Standards have been made by the Validation Review Board (VRB) (previous 'ARB'). ASAUs have been classified as 'New', 'Evolving' or 'Mature' according to how long they have been in operation, with differing services and requirements depending on their evolutionary stage. The guiding principles of an ASAU have been refined to include the requirement for ongoing governance and SMT support, and to support additional GP referral patterns and designated bed stock for Evolving and Mature ASAUs.

The Initial Needs Assessment now requires sites to be fully compliant with Standards 1A-1E. The Governance Standards have also been refined to include a nominated Nurse Manager and a Patient Advice and Liaison Service (PAL) Representative in the Steering Group. A new section, titled 'Staffing', includes a definition of who can act as a Senior Decision Maker (SDM). Other Standards have included ring-fenced trolleys for ASAU services, clarification of the use of the Manchester Triage Tool, the importance of emergency networked care and management of an ASAU in pandemic situations.

Membership of ASAU Validation Review Board

POST HOLDERS AS OF JUNE 2023

Name	Affiliation
Kenneth Mealy (Chair)	Co. Lead for NCPS
Emma Benton	General Manager, Office of NCAGL Acute Operations
Brian Donovan	Head of Healthcare Pricing Office
Paul Ridgway	National Clinical Adviser General Surgery, NCPS
Ciara Hughes	Programme Manager, NCPS
Laura Metcalfe/Fiachra Bane	Statistician/Head of Data Analytics, Healthcare Pricing Office
Sharon Casey	VRB Administrator

Aims and Objectives

This document aims to improve the provision of safe, efficient, patient-centered care in acute hospitals. The objectives of the document are to define the minimum acceptable operating standards for an ASAU in Ireland. This information is useful to inform ASAU staffing and resource requirements for hospital management and clinical directors who are planning to establish an ASAU in their hospital and for those already with an evolving or mature ASAU.

Ten Guiding Principles of an ASAU

1. The primary aim of an ASAU is to deliver **Senior Decision Making** early in the pathway of selected acute surgical patients.
2. The main quality measures are to **reduce Patient Experience Times** (PET)[1] and **reduce inappropriate admissions** thus providing **better patient care**.
3. Additional gains should include **savings in average length of stay** (AvLOS), **increased patient satisfaction**, and **decreased time to diagnostics and surgery**.
4. There should be a **critical referral population size** in order to deliver cost and other efficiencies.
5. The ASAU should have robust Clinical Governance and ongoing **support of the Hospital Senior Management Team**.
6. The ASAU must be in a **designated area** distinct from other Units[2].
7. ASAU patients must have **formally agreed access** to a dedicated emergency theatre, diagnostics and, in the case of Evolving and Mature ASAUs, inpatient beds.
8. A **review clinic** to facilitate admission avoidance and interface with ambulatory care must be available to ASAU patients.
9. An ASAU may contain **bespoke elements to provide for specific regional or local needs**.
10. Evolving and Mature ASAUs should consider **additional referral patterns** (GP referrals) and **associated designated bed stocks** (Acute Surgical Wards/Units).

1. PET in this document refers to registration to disposition from ASAU
2. In smaller Units, merging with an Acute Medical Assessment Unit [AMAU] may be considered

Evolution of an ASAU

There are three defined stages to the evolution of an ASAU:

> **NEW** ASAUs are defined as ASAUs that have been established and running for up to two years.

> **EVOLVING** ASAUs are defined as ASAUs that have been established and running for two to four years.

> **MATURE** ASAUs are defined as ASAUs that have been established and running for four years onwards.

The date of establishment of an ASAU will be determined following ward registration and a VRB review and validation of the data for the first six months. Guidelines will vary depending on the maturity level of an ASAU. The differences between ASAUs at the different evolutionary stages are outlined in the table below.

ASAU Evolutionary Stages – New, Evolving and Mature

	NEW	EVOLVING	MATURE
Length of time operating as an ASAU	Up to 2 years	2 - 4 years	4+ years
Designated bed stock allocated (Acute Surgical Wards/Units)	No	Yes	Yes
Emergency Theatre access	Yes	Yes - 24/7	Yes - 24/7
Designated allocation for Diagnostics	Yes	Yes with 24/7 CT	Yes with 24/7 CT
Specialty usage	General Surgery +/- ORL-HNS, Vascular Surgery, Urology, or Plastic Surgery	Multiple	Multiple
GP referrals accepted	No	Yes	Yes
Senior Decision Makers	Practitioner, usually a Surgical Consultant, Registrar (ST3 or equivalent) or equivalent (Non-Training Grade Doctor, trained Advanced Nurse Practitioner or regulated Health and Social Care Professional for specific disorders)*	Practitioner, usually a Surgical Consultant, Registrar (ST3 or equivalent) or equivalent (Non Training Grade Doctor, trained Advanced Nurse Practitioner or regulated Health and Social Care Professional for specific disorders)*	Practitioner, usually a Surgical Consultant, Registrar (ST3 or equivalent) or equivalent (Non Training Grade Doctor, trained Advanced Nurse Practitioner or regulated Health and Social Care Professional for specific disorders)*
Triage Category for referral (Manchester Triage System)	Category 3 and 4	Category 3 and 4. Selected triage Category 2 patients may sometimes be appropriately seen if local agreement is reached.	Category 3 and 4. Selected triage Category 2 patients may sometimes be appropriately seen if local agreement is reached.

**Refer to Standard 3B*

Users of an ASAU

PATIENTS

- Patients suffering with acute surgical illness fulfilling the admission criteria (as discussed in Appendix B). An ASAU is not an acceptable pathway for scheduled patients, regardless of urgency (e.g. suspected neoplasms).
- The ASAU is not a suitable area to board admitted patients. Separate Admission Units may be co-located, but the ASAU area must not be used for overflow, admitted patients.
- The ASAU review clinic may be used by review patients with acute postoperative complications, subject to local agreement. Although the review clinic is an essential part of the ASAU functioning, it is important that it is tied to an acute episode of care and does not attract additional (scheduled) remuneration.

SURGICAL TEAMS

- The primary specialties that will utilise a New ASAU include: General Surgery +/- ORL-HNS, Vascular Surgery, Urology and Plastic Surgery. Evolving and Mature ASAUs will be utilised by multiple specialties.
- Other local or regional high-volume surgical specialties may utilise the ASAU. In particular, to stream suitable ED surgical patients from other networked/group hospitals with limited generalist or specialist capacity.
- Orthopaedic trauma patients have not been traditionally included in the model in other Healthcare Districts, as they have well-developed pathways through the Acute Floor, including the use of fracture clinics.

HOSPITALS

An ASAU provides the hospital (or as part of a networked group solution for acute surgical care), an area where acute surgical patients can be managed effectively. It also offers the hospital an opportunity to develop pathways for ambulatory/shared community care with the implementation of care pathways in a range of surgical conditions.

COMMUNITY CARE PRACTITIONERS

ASAUs defined as ‘New’ (i.e. established and in operation for less than two years), do not facilitate direct General Practitioner referral. However, ‘Evolving’ and ‘Mature’ ASAUs do allow for limited GP referral for a selected number of cases, where communication and feedback with the community will ensure the Units aren’t admitting triage Category 5 patients (Manchester Triage System and updates).

Background

Acute Surgical Assessment Units (ASAUs), as defined in the NCPS 'Model of Care for Acute Surgery' (RCSI press 2013), set out a process whereby considerable efficiency and safety benefits may accrue to acutely ill surgical patients. The first version of this document, published in 2017, provided the first set of standards for the establishment of frameworks to validate ASAUs in Ireland. It allowed for the ASAU concept to be developed without the risk of very different models of care developing in geographically different Units. A number of ASAUs have since been validated in Ireland. All validated ASAUs in Ireland have a minimum set of criteria by which they operate. This ensures standardisation of the core services to our patients.

The Acute Floor refers to that area of the hospital where unplanned patients arrive with acute medical, surgical and psychiatric conditions, and are assessed and treated. An ASAU constitutes one component of the Acute Floor, which will also include an Emergency Department (ED), a Resuscitation Unit, an Acute Medical Assessment Unit and other named units as required. ASAUs deal with a significant throughput of acutely unwell surgical patients. Those so unwell as to require active resuscitation - Category 1 and 2 patients (Manchester Triage System, 1996 and updates) - would still continue through the default ED/Resuscitation streams.

An ASAU provides the potential to stream less high acuity patients directly to their specialty decision makers. Treatment may be either on the spot, by ambulatory or outpatient care or require admission. A functional ASAU will ambulate between 40-60% of those they see back to the community. Too many and it is an Outpatient Unit, too few and it is an Admissions Unit.

The concept of an ASAU is not new. Many healthcare systems have advocated for them since the mid-1990s when they were first proposed (Dookeran *et al*, 1996). The early enthusiasm for ASAUs was based around efficient planning to deal with increasing numbers of emergency surgical patients and meeting prescribed Patient Experience Times within ED. Today, this expected increase in number is the reality, with up to 5% year-on-year increases in emergency hospital attendances. In concert with this, the increased pressures on inpatient bed stock has led to resurgence in interest of the ASAU concept.

By cohorting preselected, acute surgical patients at initial streaming (which may be collocated with triage), patients are reviewed by senior decision makers earlier in their clinical journey. This allows early senior decision making for specialty-specific Category 3 and 4 patients (Manchester Triage System, 1996 and updates), while freeing up resources in other areas of the Acute Floor, such as the Emergency Department (ED). The resultant improved patient flow should lead to earlier treatment decisions and consequent treatment. Additional benefits include increased admission avoidance, ambulatory/remote care, and potentially shorter hospital stays. Other benefits should follow, including more rapid access to diagnostics and increased patient satisfaction. The overall improvement leads to more efficient, safer care for the patient.

Internationally, the target time from ED referral to consultation by in-house, on-call surgical teams is usually less than 30 minutes. However, in reality, in Ireland this target may be frequently missed and is often dependent on the specialty or illness severity (Kelly *et al*, 2015). This has led to discussion around 'what better on-call model the surgical service should utilise?' The majority of on-call teams in Ireland operate a supra-elective model where the on-call team carries out their normal, planned surgical work in addition to any on-call responsibilities required. These on-call responsibilities are 'fitted in' around the normal working day and, hence, there is significant potential for delays and inefficiencies of care. Ideally, the on-call team should be freed of all other duties. The more efficient, dedicated on-call 'surgeon of the week' model is the exception rather than the rule in Ireland (Kelly *et al*, 2015). This model is where the on-call senior decision maker and team have only to deal with their on-call responsibilities while their elective commitments are significantly or entirely curtailed.

There are many reasons why the ideal 'surgeon of the week' model is uncommon; these include staff shortages, difficulties with rosters, an inadequate demand of emergency surgical presentations and pressure to continue with elective work to manage waiting lists. Ideally, for the 'surgeon of the week' model to be cost effective there must be a critical referral mass to allow emergency work to be separated from elective work. This may be achieved within a single hospital's adequate catchment population or by reconfiguring networks of smaller hospital catchments feeding into a single ASAU.

This document sets out a minimum standard for the establishment of, or the improvement of an existing ASAU. Any local modification must meet these minimum standards to satisfy Healthcare Pricing Office (HPO) agreed funding streams. Each ASAU applicant will be required to satisfy HPO criteria for funding and the NCPS Standards document.

Initial Needs Assessment and Standards

1.0 Initial Needs Assessment

To determine whether an ASAU would be useful for the delivery of acute surgical services for patients in a hospital/group/catchment area, an Initial Needs Assessment should be carried out (see example in Appendix A).

As an initial scope of the needs of the local population, the site must be compliant with Standards 1A – 1E. Each Unit should aim to meet 100% of all Standards (1-7) within three years of the date of application.

Acute attendances: The utility of an ASAU is to support a critical mass of acutely presenting surgical patients. Whereas one hospital may fall short of the required basic standard, a planned group/network redesign would allow progression with lesser numbers. The following Standards are developed based on national ED attendance figures and the surgical admits generated from same.

Standard 1A:	Yearly average of Adult hospital or networked ED attendances over a minimum of two years >30,000
Standard 1B:	Cumulative Acute General, Urology, Plastics and Vascular Surgical admissions per year >1,200, and recorded ED attendances for General and Vascular Surgery number per year >1,500
Standard 1C:	The consultant on-call rota for General Surgery is no less than 1:4, ideally at least 1:8
Standard 1Di:	New ASAUs must have formal designated access to Emergency Theatres and Radiology/ Diagnostics. It is not expected that a New ASAU should have ring-fenced bed stock, but plans should be made to have a designated bed stock as the ASAU evolves
Standard 1Dii:	Evolving and Mature ASAUs must have 24/7 CT access, 24/7 access to Emergency Theatres and designated bed stock allocated (Acute Surgical Wards/Units)

The ASAU is not designed to replace outpatient or community-based systems of care. It is estimated that approximately 40-60% of attendances within an ASAU would result in discharge home or to the community without admission. A surrogate marker for the ability for an ASAU to discharge into an effective outpatient-based care pathway is the discharge ratio of the adult ED General and Vascular Surgery admissions of 30% or greater.

Standard 1E:	An audit of ED attendances with abdominal pain for two consecutive months with a discharge rate of =>30%

Proposed Group/regional structure changes: The above Standards (1A-E) are developed for Units who have or expect to have met current usage criteria. Some Units will be developed *de novo* as part of a group or network redesign of acute care services. Standard 1F is written to account for future/planned Units. In order to avail of Standard 1F, written support of the group Chief Executive Officer (CEO) in addition to written support of the CEO from each individual site contributing to the ASAU is necessary.

Standard 1F:	The proposed network redesign would be expected to meet Standards 1A - 1E. Evidence of prediction modelling and resourcing would be required. This needs to be endorsed by the Chief Executive Officer of the healthcare regional authority.

For new ASAU's, once the above standards have been achieved, a business case should be written outlining how the following standards will be met.

2.0 Governance

2.1 CLINICAL AND OPERATIONAL

The ASAU should have robust processes from the outset. Clear clinical governance patterns should be present and any changes should be ratified by a Steering Group (Standard 2B), with adequate representatives from all relevant stakeholders.

Standard 2A:	There must be a documented, designated Clinical Lead (Consultant Surgeon), Business Manager and Nurse Manager with close links to the executive management team.
Standard 2B:	There should be an ASAU Steering Group comprising of nominated Clinical Leads of all service users (General Surgery, Urology etc.), Business Manager, Nursing Manager, Radiology/Diagnostics Lead, Clinical Director and Executive Manager at least the grade of Chief Operations Officer or similar. This Steering Group should contain representatives from the ED and a patient advocate/representative/Patient Advice and Liaison Service (PAL) representative. Other members, such as the Theatre Manager, may be added dependent on local needs. The Group should have minuted meetings at least twice per year, but have regular programmed business reports in between meetings.
Standard 2C:	The Steering Group should be kept informed of the Key Performance Indicators (KPIs) quarterly (separate to Steering Group periodic meetings).

2.2 ADMINISTRATIVE

Managing the ASAU is not dissimilar to any other part of the Acute Floor. Processes on the floor should be subject to usual Hospital and Network/Group standard operational procedures and line management.

Standard 2D:	The ASAU Steering Group should have a documented reporting structure within the overall governance body for the organisation.

3.0 Staffing

3.1 CLINICAL

There must be no ambiguity around who is responsible for the patient at any time during the patient journey.

Standard 3A:	The on-call surgical team and Consultant must be the default Clinical Governance structure. Local changes may be made to this structure dependent on need. All substantive standard operating procedure changes should be clearly documented and agreed by the surgical on-call teams and the Steering Group.
Standard 3B:	A Senior Decision Maker (SDM) must be immediately contactable if not resident in the Unit, and is a key practitioner for effective patient flow in ASAUs. This SDM must be of an appropriate level of Seniority with the autonomous ability to admit or discharge patients in an ASAU. An appropriate SDM is a Practitioner, usually a Surgical Consultant, Registrar (ST3 or equivalent) or equivalent (Non-Training Grade Doctor, trained Advanced Nurse Practitioner or regulated Health and Social Care Professional for specific disorders).
Standard 3C:	Eighty percent of ASAU reviews should occur within 30 minutes of arrival in the ASAU.
Standard 3D:	The on-call surgical model may differ dependent on local needs/resources. Where possible, at least some of the on-call team should have no/reduced elective work to facilitate emergency reviews in the ASAU. This is especially true if the KPI of reviews within 30 minutes is not being met. The NCPS is happy to advise on optimising scheduled/unscheduled activity and resourcing.

3.0 Staffing (con't)

3.2 NURSING

Nurses staffing an ASAU must have relevant skills and knowledge specific to the clinical area, i.e. surgical and wound care, and assessment of an acute surgical patient.

Standard 3E:	An appropriate number of dedicated WTE Registered Nurses and Healthcare Assistants should be allocated to the ASAU.

Dependent on opening hours and size of the Unit, appropriate nursing WTEs should be allocated. Nursing and Healthcare Assistant levels, including variation on a shift-by-shift basis, are agreed locally, taking into consideration bed capacity, patient acuity, admission criteria, hours of operation, turnover and patient dependency.

Standard 3F:	The Unit must be under the leadership of a named Nurse Manager of at least CNM2 Grade. This CNM may also have responsibility for other Units across the acute floor but is the designated nursing lead for the ASAU.

The role of a nurse in an Advanced Practice role in Ireland is not a new concept, with considerable gains being made in medical specialties such as AMAU, ED, COPD and Older Person's services. There are excellent examples of Advanced Nurse Practitioners in surgical specialties (Urology, Breast, Orthopaedics), acting as decision makers and providing a whole episode of care in the relevant specialty in line with their scope of practice. Whist the concept is yet to be proved for an ANP in an ASAU, the definition of a senior surgical decision maker would allow for a nurse in an advanced role.

3.3 ADMINISTRATIVE

It is suggested that ASAUs would be open Monday – Friday with minimum opening hours of 0800 until 1600. Evolving and mature ASAUs may be resourced to open for longer. Patient flows outside of a Units opening hours are not to be recorded as ASAU patients. Introduction of longer opening hours and co-located Admissions Units should occur once initial efficacy is confirmed and supported by an appropriate economic model.

Standard 3G:	The Unit should be supported by at least 0.5 WTE Clerical Staff.
Standard 3H:	The Clerical Staff should be trained to provide KPI reports to the Clinical and Business Leads and to the ASAU Steering Group as determined by the frequency in Standard 7D.

ICT staff: There may be an increased need for ICT support at pilot sites for the Acute Floor Information System (AFIS) and in other sites once AFIS is operational and rolled out to other acute floors.

3.4 PORTERING/SUPPORT SERVICES

Existing WTE porters and support staff should cover an ASAU, as these patients are the same patients that would otherwise be seen in the ED stream. Specific discussions and agreements regarding needs should be conducted locally.

4.0 Estates and Acute Floor Administration

The ASAU should be constructed near or in the Acute Floor (ED and AMAU) to aid in patient flow.

Standard 4A:	The ASAU must be a designated area which comprises of a minimum of two dedicated ASAU monitored bays for trolleys and two chairs.
Standard 4B:	The trolleys should be ring-fenced for ASAU services and should not be used for boarded patients overnight.
Standard 4C:	Patients who have been boarded in the ASAU must be reported within the daily TrolleyGAR figures via the Business Intelligence Unit with the rationale for the areas use.
Standard 4D:	The bays should be suitably equipped with piped oxygen, suction and monitoring equipment.
Standard 4E:	There should be easy access to a Procedure Room.
Standard 4F:	There should be an ICT solution (an Acute Floor Information System, AFIS or equivalent) to monitor patient flow and KPIs.

5.0 Inputs/Patient Referral Pathways

The ASAU should be populated from a central referral streaming/Triage for the Acute Floor. Secondary inputs from ED and AMAU-assessed patients may be permitted. Patients from triage Categories 3 and 4 should be easily routed to a newly established ASAU (Appendix B). Note that selected patients from triage Category 2 of the Manchester Triage System may sometimes be appropriately seen in an evolving ASAU (that is, in operation for 2-4 years) or a mature ASAU (that is, an ASAU in operation for 4+ years). A written, agreed process should facilitate same.

Standard 5A:	The ASAU should be populated from a standardised, central referral streaming/triage for the Acute Floor (other than GP referrals).
Standard 5B:	Manchester Triage tool should be used for streaming*.
Standard 5C:	A documented admission criteria of triage Category 3 and 4 patients to the newly established ASAU must be agreed among the ASAU Steering Group. Selected triage Category 2 patients may sometimes be appropriately seen in an evolving ASAU (that is, in operation for 2-4 years) or a mature ASAU (that is, in operation for 4+ years) if local agreement is reached.

Direct GP referrals should be considered once an ASAU has reached an 'Evolving' status, whereby it has been validated and operating for 2-4 years. An appropriate feedback mechanism should be in place with general practice in relation to patients who fall outside the locally agreed admission criteria.

Standard 5D:	There should be agreed criteria for a GP referral to an ASAU that has reached an 'Evolving' status (whereby it has been validated and operating as such for 2-4 years).

Patients reviewed out of ASAU hours by on-call surgery in ED should be easily able to be booked into a daily review clinic. This would allow patients to be discharged during the night to a scheduled Acute Return Review Clinic the following morning.

Standard 5E:	An appropriate area should be allocated for a daily review clinic. This may be in the ASAU or an area in close proximity.
Standard 5F:	There must be a scheduled daily review clinic with clear written admission criteria.

The review clinic attendances should not be counted in ASAU presentations and will not be funded as a subsequent attendance by the HPO.

**It is assumed that patients that are referred to an ASAU from a GP will also be Category 2, 3, 4 as appropriate.*

6.0 Patient Flow

The patient journey requires structure and time-stamping to ensure efficient care. Clear flow diagrams are required to document the structure and outputs of the Unit. An example of a patient flow diagram is included (Appendix C). The patient's episode of care will be treated as an inpatient stay; they will, therefore, need their care documented on an electronic or paper chart.

Standard 6A:	There must be a flow diagram of a patient journey through an ASAU, documenting admission and discharge routes.
Standard 6B:	The following minimum time-stamp data **must** be recorded: • ASAU registration time • Time seen by Senior Decision Maker • Time of disposition decision • Time of departure from ASAU The following minimum time-stamp data **should** be recorded: • Registration time of triage within ED or acute floor triage • Time of referral to ASAU • Time of bed booking These time stamps allow for the following time metrics to be calculated: • Time of referral to ASAU to ASAU registration • ASAU registration to time seen by Senior Decision Maker • ASAU registration to disposition decision (PET) • ASAU registration to departure time • Disposition time to bed booking • Bed booking to departure time

Patient disposition outputs from the Unit are categorised into: discharge home +/- outpatient, ASAU Review Clinic, Community Care Pathway (e.g. Cellulitis using OPAT at home IV antibiotics), admit as inpatient, or referral to an in-house/external specialty.

Standard 6C:	The disposition output must be recorded for each patient.
Standard 6D:	The primary studied outcome for reports must be Patient Experience Time (PET).
Standard 6E:	If an admission is avoided it should be recorded as such.
Standard 6F:	There must be a documented pathway in place for: a. Referral to another in-house service; and b. Emergency transportation in the event a patient needs to be escalated to a specialist service.
Standard 6G:	Where the ASAU refers to another networked hospital for care, there should be a 'no refusal' policy of acceptance and repatriation for specific conditions.

7.0 Financial

The following is a minimal dataset required in order for the ASAU to be deemed compliant with the Standards:

Standard 7A:	The Unit must be called an ASAU
Standard 7B:	The following data **should** be recorded: • Direct costs of Unit • Direct costs should be documented in a separate financial ledger • Costs in respect of diagnostic tests or paramedical interventions should be tracked to patients attending the ASAU to enable a comparison of the costs of these patients against the funding received
Standard 7C:	The following data **must** be recorded: • Type of activity (diagnoses, procedures and DRG assignment) • Admission Type (elective/non-elective) • Duration of stay • Repeat attendances • % same day activity • If the patient is a review clinic patient, this is separately recorded
Standard 7D:	The clinical efficacy of the ASAU is defined optimally by monthly KPIs, but at a minimum, by quarterly KPIs, which must be prepared for the Clinical/Business Lead, ASAU Steering Group, and for the VRB as and when required.

HIPE and Activity Based Funding (ABF) Considerations

RECORDING ON HIPE

In the absence of a national data collection system for the Acute Floor, the ASAU VRB has agreed with the Healthcare Pricing Office (HPO) that ASAU activity data will be captured on the Hospital In-patient Enquiry (HIPE) system. This temporary arrangement will allow for the monitoring of ASAU activity until such time as national Acute Floor data collection is established.

In order for ASAU activity to be clearly identified, the following should be applied when recording this activity on HIPE:

- The HIPE ward identifier must be "ASAU"
- ASAU attendances are emergency by nature and must be recorded with
  - HIPE admission type of "4 Emergency" or "5 Emergency Readmission"
  - HIPE mode of emergency admission of "7 ASAU Admitted as Inpatient" or "8 ASAU Only"
- Where a patient is asked to return to an ASAU on a planned basis for review, this attendance should not be recorded on HIPE. A separate outpatient ASAU Review Clinic should be established and this scheduled review activity should be recorded there.

ASAU AND ABF

The purpose of recording ASAU activity on HIPE is to provide intelligence to the VRB on the operation of the Units and to facilitate the review process in the absence of national Acute Floor data collection. Although this data is being recorded on HIPE, episodes of care where a patient is treated entirely in the ASAU and is not admitted to an inpatient bed are outside the scope of the admitted patient ABF model. As such, this activity will not be included in the National Service Plan (NSP) or ABF inpatient activity targets and will be funded through block funding until an ED ABF model is developed.

Episodes of care where a patient attends an ASAU and is subsequently admitted to an inpatient bed will be included in both the NSP and ABF activity targets as inpatients.

Validation Process

The VRB will request information in advance of any visit to assess against the standards and will follow this up with either a visit to the site or a virtual meeting as needed. The VRB will communicate with the nominated Validation Lead to facilitate the process.

The VRB is made up of the following:

- ASAU Validation Chair
- NCPS representation
- HPO representation
- NCAGL Acute Operations representation

The outcome of the VRB assessment will be:

a. **Full compliance** – where 100% of the **MUST** Standards and 75% or above of the **SHOULD** Standards have been met. The ASAU will be validated for 3 years.

b. **Partial compliance** – where 75-99% of the **MUST** Standards and 50-74% of the **SHOULD** Standards have been met. The ASAU will be validated for 1 year, and an action plan will be provided to address unmet Standards.

c. **Non-compliance** – where only 0-74% of the **MUST** Standards have been met. The ASAU will not be validated at this stage but the option to collaborate with the VRB to develop an action plan for future compliance will be offered.

Key Performance Indicators

KPI1:	ASAU PET time less than 4 hours for 80%
KPI2:	Admissions less than 60% per month
KPI3:	Review in the ASAU in less than 30 minutes in 80% or greater
KPI4:	Less than 10% Triage Category 5 patients
KPI5:	Patient satisfaction sample of at least 25 patients in any quarter

Setting up a New ASAU

A hospital can contact the VRB to discuss the establishment of an ASAU or to commence the validation process via email to surgeryprogramme@rcsi.ie

ASAU in Pandemic Conditions

During the COVID-19 pandemic, there were many lessons learnt around ASAU utility and patient flow. ASAUs worked exceptionally well in the first waves, but in latter waves ASAU areas were commonly realigned to provide additional undifferentiated capacity on many sites. Obviously, each outbreak/wave of a pandemic carries with it specific needs/requirements, but below are high-level guiding principles.

During pandemic conditions when the country is at its highest infection alert level, at least one functioning ASAU should be maintained in every Regional Health Area (RHA), with agreement between hospital sites. It should be noted that the location of the RHA ASAU may need to change from the existing sites, many of which are receiving hospitals. Symptom-triage should take place to ensure that the RHA's ASAU remains infection-free for the longest possible duration and, if testing capacity and patient condition allows, every patient should be pre-screened for the infectious agent.

During any pandemic, each ASAU should allow appropriate patients to be booked directly from primary care as well as accepting patients from hospital triage. During this period, the RHA ASAU is, therefore, a geographic service not necessarily linked to any specific hospital. Appropriate sites for each RHA ASAU may be in the public or private system. ASAU sites may be an appropriate site for co-location of community diagnostics.

Acknowledgments

This updated document is based on the experiences of the early adopters of ASAUs in Ireland.

These sites should be commended and the learning from these sites acknowledged:

- University Hospital Galway
- Mater Misericordiae University Hospital
- St Luke's General Hospital, Kilkenny
- University Hospital Limerick
- Our Lady of Lourdes Hospital, Drogheda
- Cork University Hospital
- Tallaght University Hospital

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APPENDICES

Appendix A: LIST OF STANDARDS, INCLUDING INITIAL NEEDS ASSESSMENT

Initial Needs Assessment

Standard	As an initial scope of the needs of your local population, the site must be compliant with Standards 1A – 1E
1A	Yearly average of Adult hospital or networked ED attendances over a minimum of two years >30,000
1B	Cumulative Acute General, Urology, Plastics and Vascular Surgical admissions per year >1,200, and recorded ED attendances for General and Vascular Surgery number per year >1,500
1C	The consultant on-call rota for General Surgery is no less than 1:4, ideally at least 1:8
1Di	New ASAUs must have formal designated access to Emergency Theatres and Radiology/ Diagnostics. It is not expected that a New ASAU should have ring-fenced bed stock, but plans should be made to have a designated bed stock as the ASAU evolves
1Dii	Evolving and Mature ASAUs must have 24/7 CT access, 24/7 access to Emergency Theatres and designated bed stock allocated (Acute Surgical Wards/Units)
1E	An audit of ED attendances with abdominal pain for two consecutive months with a discharge rate =>30%
1F	The proposed network redesign would be expected to meet Standards 1A - 1E. Evidence of prediction modelling and resourcing would be required. This needs to be endorsed by the Chief Executive Officer of the healthcare regional authority. *(This Standard replaces Standards 1A-E where group redesign has been agreed)*

The above Standards 1A-E are developed for Units who have or expect to have met current usage criteria. Some Units will be developed *de novo* as part of a group or network redesign of acute care services. Standard 1F is written to account for future/planned Units. In order to avail of Standard 1F, written support of the group Chief Executive Officer (CEO), in addition to written support of the CEO from each individual site contributing to the ASAU is necessary.

Once Standards 1A-E have been achieved, a business case should be written outlining how the following Standards will be met.

Governance

2A	There must be a documented, designated Clinical Lead (Consultant Surgeon), Business Manager and Nurse Manager with close links to the executive management team.
2B	There should be an ASAU Steering Group comprising of nominated Clinical Leads of all service users (General Surgery, Urology etc.), Business Manager, Nursing Manager, Radiology/Diagnostics Lead, Clinical Director and Executive Manager, at least the grade of Chief Operations Officer or similar. This Steering Group should contain representatives from the ED and a patient advocate/representative/Patient Advice and Liaison Service (PAL) representative. Other members, such as the Theatre Manager, may be added dependent on local needs. The Group should have minuted meetings at least twice per year, but have regular programmed business reports in between meetings.
2C	The Steering Group should be kept informed of the Key Performance Indicators (KPIs) quarterly (separate to Steering Group periodic meetings).
2D	The ASAU Steering Group should have a documented reporting structure within the overall governance body for the organisation.

Staffing

3A	The on-call surgical team and Consultant must be the default Clinical Governance structure. Local changes may be made to this structure dependent on need. All substantive standard operating procedure changes should be clearly documented and agreed by the surgical on-call teams and the Steering Group.
3B	A Senior Decision Maker (SDM) must be immediately contactable if not resident in the Unit, and is a key practitioner for effective patient flow in ASAUs. This SDM must be of an appropriate level of Seniority with the autonomous ability to admit or discharge patients in an ASAU. An appropriate SDM is a Practitioner, usually a Surgical Consultant, Registrar (ST3 or equivalent) or equivalent (Non-Training Grade Doctor, trained Advanced Nurse Practitioner or regulated Health and Social Care Professional for specific disorders).
3C	Eighty percent of ASAU reviews should occur within 30 minutes of arrival in the ASAU.
3D	The on-call surgical model may differ dependent on local needs/resources. Where possible, at least some of the on-call team should have no/reduced elective work to facilitate emergency reviews in the ASAU. This is especially true if the KPI of reviews within 30 minutes is not being met. The NCPS is happy to advise on optimising scheduled/unscheduled activity and resourcing.
3E	An appropriate number of dedicated WTE Registered Nurses and Healthcare Assistants should be allocated to the ASAU.
3F	The Unit must be under the leadership of a named Nurse Manager of at least CNM2 Grade. This CNM may also have responsibility for other units across the Acute Floor but is the designated nursing lead for the ASAU.
3G	The Unit should be supported by at least 0.5 WTE Clerical Staff.
3H	The Clerical Staff should be trained to provide KPI reports to the Clinical and Business Leads and to the ASAU Steering Group as determined by the frequency in Standard 7D.

Estates and Acute Floor Administration

4A	The ASAU **must be a designated area** which comprises of a minimum of two dedicated ASAU monitored bays for trolleys and two chairs.
4B	The trolleys should be ring-fenced for ASAU services and should not be used for boarded patients overnight.
4C	Patients who have been boarded in the ASAU must be reported within the daily TrolleyGAR figures via the Business Intelligence Unit with the rationale for the areas use.
4D	The bays should be suitably equipped with piped oxygen, suction and monitoring equipment.
4E	There should be easy access to a Procedure Room.
4F	There should be an ICT solution (an Acute Floor Information System, AFIS or equivalent) to monitor patient flow and KPIs.

Inputs/Patient Referral Pathways

5A	The ASAU should be populated from a standardised centralised referral streaming/triage for the Acute Floor (other than GP referrals).
5B	Manchester Triage tool should be used for streaming*.
5C	A documented admission criteria of triage Category 3 and 4 patients to the newly established ASAU must be agreed among the ASAU Steering Group. Selected triage Category 2 patients may sometimes be appropriately seen in an evolving ASAU (that is, in operation for 2-4 years) or a mature ASAU (that is, in operation for 4+ years) if local agreement is reached.
5D	There should be agreed criteria for a GP referral to an ASAU that has reached an 'Evolving' status (whereby it has been validated and operating as such for 2-4 years).
5E	An appropriate area should be allocated for a daily review clinic. This may be in the ASAU or an area in close proximity.
5F	There must be a scheduled daily review clinic with clear written admission criteria.

** It is assumed that patients that are referred to an ASAU from a GP will also be Category 2, 3, 4 as appropriate*

Patient flow

6A	There must be a flow diagram of a patient journey through an ASAU, documenting admission and discharge routes.
6B	The following minimum time-stamp data **must** be recorded: • ASAU registration time • Time seen by Senior Decision Maker • Time of disposition decision • Time of departure from ASAU The following minimum time-stamp data **should** be recorded: • Registration time of triage within ED or acute floor triage • Time of referral to ASAU • Time of bed booking These time stamps allow for the following time metrics to be calculated: • Time of referral to ASAU to ASAU registration • ASAU registration to time seen by Senior Decision Maker • ASAU registration to disposition decision (PET) • ASAU registration to departure time • Disposition time to bed booking • Bed booking to departure time
6C	The disposition output must be recorded for each patient.
6D	The primary studied outcome for reports must be Patient Experience Time (PET).
6E	If an admission is avoided it should be recorded as such.
6F	There must be a documented pathway in place for: a. Referral to another in-house service; and b. Emergency transportation in the event a patient needs to be escalated to a specialist service.
6G	Where the ASAU refers to another networked hospital for care, there should be a 'no refusal' policy of acceptance and repatriation for specific conditions.

Financial

7A	The Unit must be called an ASAU.
7B	The following data **should** be recorded: • Direct costs of Unit • Direct costs should be documented in a separate financial ledger • Costs in respect of diagnostic tests or paramedical interventions should be tracked to patients attending the ASAU to enable a comparison of the costs of these patients against the funding received
7C	The following data **must** be recorded: • Type of activity (diagnoses, procedures and DRG assignment) • Admission Type (elective/non-elective) • Duration of stay • Repeat attendances • % same day activity • If the patient is a review clinic patient, this is separately recorded
7D	The clinical efficacy of the ASAU is defined optimally by monthly KPIs, but at a minimum, by quarterly KPIs, which must be prepared for the Clinical/Business Lead, ASAU Steering Group, and for the VRB as and when required.

Key Performance Indicators (KPIs)

KPI 1	ASAU PET time less than 4 hours for 80%
KPI 2	Admissions less than 60% per month
KPI 3	Review in the ASAU in less than 30 minutes in 80% or greater
KPI 4	Less than 10% Triage Category 5 patients
KPI 5	Patient satisfaction sample of at least 25 patients in any quarter

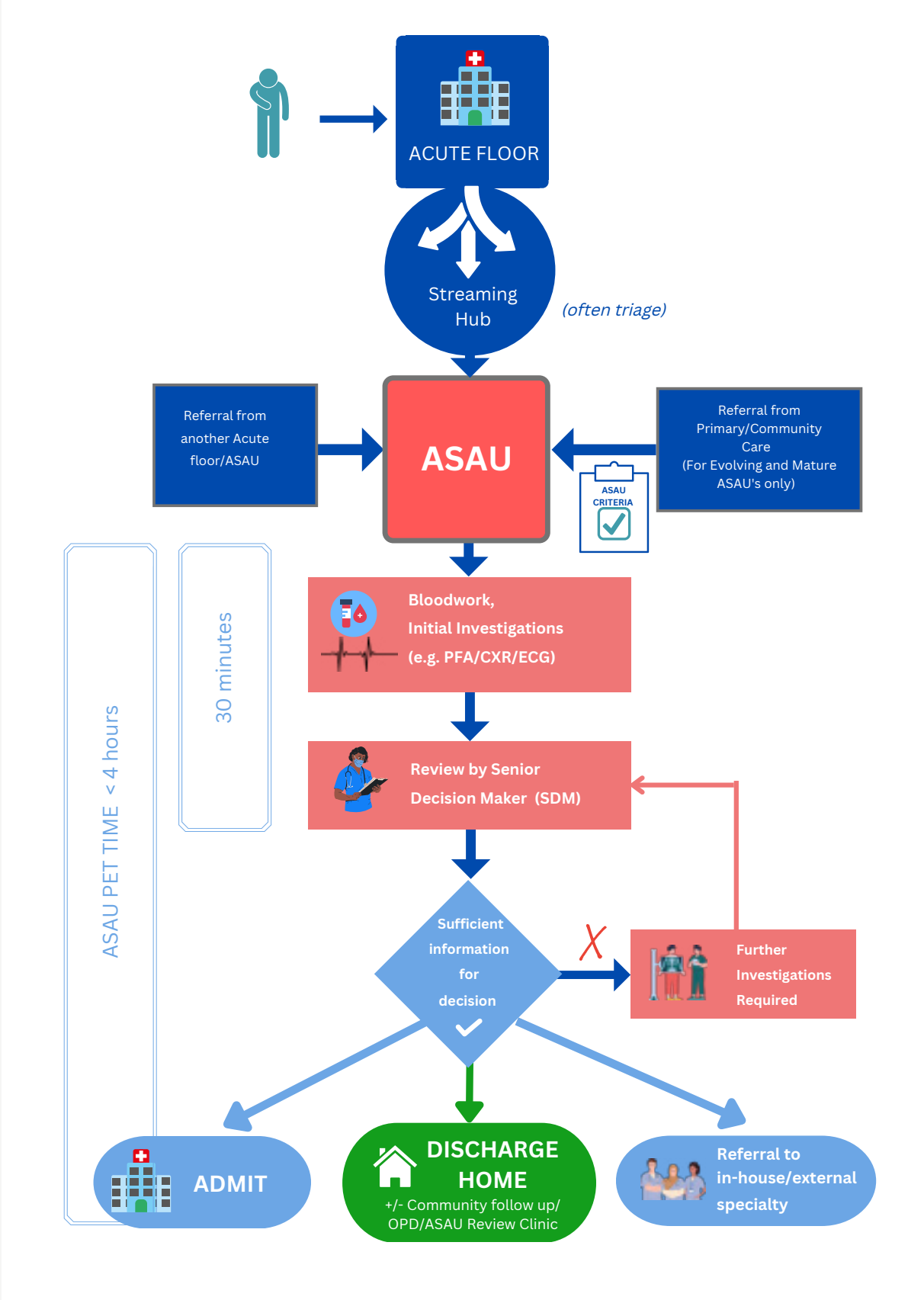
Appendix B: **MANCHESTER TRIAGE SYSTEM**

Manchester Triage System as modified for a validated ASAU in Ireland. The Categories 3 and 4 (coloured green) or equivalent patients are appropriate to be assessed in a newly established ASAU. Selected Category 2 patients may sometimes be appropriately seen in an evolving or mature ASAU, if local agreement is reached.

TRIAGE CATEGORY	SURGICAL DESCRIPTION/EXAMPLE	MANAGEMENT LOCATION
1. **Resuscitation** (Red) **(IMMEDIATE)**	**Examples include active intraperitoneal bleeding, trauma**	**ED – surgical team will review in ED/resus**
2. **VERY URGENT** (Orange)	**Examples include incarcerated hernia with bowel entrapment, diffuse peritonitis due to hollow viscus perforation, necrotizing fasciitis, any patient with haemodynamic (HD) instability (e.g. unstable bleeding), all UGI bleeding.**	**ED – surgical team will review in ED/resus** **Some stable conditions in this category can be seen in evolving or mature ASAUs, if local agreement is reached.**
3. **URGENT** (Yellow)	**Examples include Acute appendicitis, uncomplicated cholangitis (not septic, not HD unstable), diverticulitis (not septic, not HD unstable).**	**ASAU**
4. **LESS URGENT** (Green)	**Examples include Uncomplicated cholecystitis requiring admission (not meeting criteria for necrotizing fasciitis), abscess requiring drainage, LGI bleed (not unstable) LBO (not perforated or HD unstable).**	**ASAU**
5. **NON-URGENT** (Blue)		**Appropriate outpatient referral**

Appendix C: **FLOW DIAGRAM SHOWING ASAU INPUTS AND OUTPUTS**

An example of a flow diagram showing inputs and outputs through a validated ASAU model is featured below.





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