Safe staffing for nursing in A&E departments: the full NICE safe staffing guideline

20 January, 2016

HSJ has reproduced the safe staffing guideline for accident and emergency departments from NICE from a leaked document. To protect the identity of our source, HSJ has not made the original documents available.

The document obtained by HSJ was labelled as the final guideline and was completed following a public consultation in January 2015, and includes changes made to the guidance as a result of the consultation, further analysis and work by the safe staffing committee.

We have omitted the glossary and contributors and declarations of interest.

More from: Exclusive: NICE experts called for minimum staff ratios in leaked guidance

View the appendix

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Introduction

The Department of Health and NHS England have asked NICE to develop evidence- based guidelines on safe staffing, with a particular focus on nursing staff, for England. This request followed the publication of the Francis report (2013) and the Keogh review (2013).

Focus of the guideline

This guideline makes recommendations on safe nursing staff requirements for Accident and Emergency (A&E) settings, based on the best available evidence. The guideline focuses on nursing staff requirements in type 1 A&E departments. In this guideline, nursing staff refers to registered nurses and non-registered nursing staff such as healthcare assistants or assistant practitioners, unless otherwise specified.

The guideline recommendations are split into different sections:

- Recommendations in section 1.1 are aimed at trust boards, senior management and commissioners. They identify organisational and managerial requirements to support safe nursing staff requirements in A&E departments.
- Recommendations in section 1.2 are aimed at senior registered nurses who are responsible for setting the A&E nursing staff establishment. They focus on the process for setting the A&E nursing staff establishment and the factors that should be taken into account.
- Recommendations in section 1.3 are aimed at senior registered nurses who are in charge of shifts in the A&E department. They are about ensuring that the A&E department can respond to situations that may lead to an increased demand for nursing staff and to differences between the numbers of nursing staff needed and the numbers available.
- Recommendations in section 1.4 are aimed at senior management and registered nursing managers and are about monitoring whether safe A&E nursing staff requirements are being met. This includes recommendations to review nursing staff establishments and adjust them if necessary.

For further information, see the scope for the guideline.

This guideline is for organisations that provide or commission services for NHS patients. It is aimed at policy decision makers, commissioners, trust boards, chief nurses, heads and directors of nursing, hospital managers, A&E managers, and registered nurses with responsibility for or working in A&E departments. It may be of use to non-registered nursing staff, the wider multidisciplinary team, other healthcare professionals, and those responsible for services affecting attendance into, transfer out of, and discharge from A&E. The guideline may also be of interest to regulators and the public.

Those responsible and accountable for staffing for nursing in A&E departments should take this guideline fully into account. However, this guideline does not override the need for, and importance of using professional judgement to make decisions appropriate to the circumstances.

This guideline does not cover national or regional nursing workforce planning or recruitment, although its content may inform these areas. It does not cover other types of urgent care settings or the effectiveness of different A&E service delivery models or configurations.

This guideline does not address staffing requirements in relation to other staff groups such as emergency nurse practitioners, advanced practitioners, allied health professionals, nurse consultants or medical consultants, as these staff groups are not included in the general nursing staff establishment and their staffing requirements would need to be considered separately. We do, however, acknowledge that a multidisciplinary approach and the availability of other staff and healthcare professionals are an important part of safe staffing for A&E nursing. The guideline therefore takes into account the impact of the availability of other staff groups when determining nursing staff requirements for A&E departments.

Toolkits to support the guideline

The guideline will also be of interest to people involved in developing evidence-based toolkits for assessing and determining safe nursing staff requirements. NICE offers a separate process to assess whether submitted evidence-based toolkits for informing staffing requirements comply with the guideline recommendations. Details of any toolkits that can help with implementing this guideline are listed alongside other resources.

Staffing ratios

Minimum ratios for areas of the A&E department and registered nurse-to-patient ratios for particular situations are recommended in this guideline based on the evidence available and the Safe Staffing Advisory Committee's knowledge and experience. The Committee's discussions about staffing ratios are contained in the 'Evidence to recommendations tables' document that is published alongside the guideline.

Patient-centred care

Individually assessing the nursing care needs of patients is paramount when making decisions about safe nursing staff requirements for A&E. The assessment should take into account individual preferences and the need for holistic care and patient contact time between the nurse and the patient.

Patients, and their family members and/or carers if appropriate, should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. Healthcare professionals and others responsible for assessing safe nursing staff requirements for A&E should also refer to NICE's guidance on the components of good patient experience in adult NHS services.

Patients and healthcare professionals have rights and responsibilities as set out in the NHS Constitution for England – all NICE guidance is written to reflect these.

Evidence to recommendations

When drafting these recommendations, the Safe Staffing Advisory Committee discussed evidence from the systematic review and an economic analysis report described in section 2. In some areas there was limited or no published evidence. In these cases, the Committee considered whether it was possible to formulate a recommendation on the basis of their experience and expertise. The evidence to recommendations tables presented in appendix 1 detail the Committee's considerations when drafting the recommendations.

The Committee also identified a series of gaps in the evidence – please see section 3 for further details.

When drafting the recommendations the Committee took into account:

- whether there is a legal duty to apply the recommendation (for example, to be in line with health and safety legislation)
- the strength and quality of the evidence base (for example, the risk of bias in the studies looked at, or the similarity of the patient populations covered)
- the relative benefits and harms of taking (or not taking) the action
- any equality considerations.

Strength of recommendations

Recommendations using directive language such as 'ensure' and 'assess' are used to indicate the Committee was confident that a course of action would lead to safe nursing care.

If the quality of the evidence or the balance between benefits and harms means that more time should be taken to decide on the best course of action, the Committee has used 'consider'.

Recommendations that an action 'must' or 'must not' be taken are usually included only if there is a legal duty (for example, to comply with health and safety regulations).

Recommendations

The recommendations in this guideline cover nursing care provided in type 1 A&E departments.

Recommendations in section 1.1 focus on the requirements of organisations and the actions they should take to support safe nursing staff requirements in A&E departments.

The recommendations in section 1.2 describe the process and factors to be considered when setting the A&E nursing staff establishment. The process described in this section could also be used as the specification for a toolkit for setting the A&E nursing staff establishment.

Recommendations in section 1.3 are about ensuring that the A&E department can respond on a shift-by-shift basis to situations that may lead to an increased demand for nursing staff and to differences between the numbers of nursing staff needed and the numbers available.

Recommendations in section 1.4 are about monitoring whether safe A&E nursing staff requirements are being met. This includes recommendations to review nursing staff establishments and adjust them if necessary.

1.1 Organisational requirements

These recommendations are for trust boards, senior management and commissioners.

Focus on patient care

1.1.1 Ensure that patients attending A&E departments receive the nursing care they need at all times of the day and night, on weekdays and at weekends.

Accountability for A&E nursing staff establishments

1.1.2 Develop procedures to ensure that a systematic process is used to set the A&E nursing staff establishment to provide safe care at all times to budget for the A&E department covers the required nursing staff establishment (as determined by recommendation 1.2.2).

1.1.3 Ensure that all A&E departments have the capacity to do the following:

- Deliver the nursing care that all patients need from the time of attendance at the department, through initial and ongoing assessment, and care delivery to discharge.
- Provide triage, minor, major, resuscitation and paediatric A&E services, and where appropriate major trauma A&E services.
- Provide staff to cover all the nursing roles needed for each shift, including leadership, supervision and oversight of each shift.
- Provide specialist input for children where the A&E department receives adults and children, by having a registered children's nurse on each shift. Where this is not operationally possible ensure there is at least 1 A&E nurse on each shift with the necessary competencies in caring for children and young people.
- Meet the needs of the local population in the A&E department, for example: Older people, people with learning disabilities, people with mental health needs (including dementia) or people with complex psychosocial needs; People whose first language is not English and who may need access to translation services; People with sensory impairment or communication difficulties. This may include ensuring that A&E nursing staff receive extra training in these areas, or that they have access to specialist input such as translation services outside the A&E nursing team when needed.
- Allow for: uplift (which may include consideration of annual leave, maternity leave, paternity leave, study leave [including mandatory training and continuing professional development] and sickness absence); time for all A&E nursing staff to give and receive supervision and training in line with professional guidance.
- Predict and respond to variation over time as indicated by records of A&E nursing staff requirements (for example, variation in demand for A&E services).

1.1.4 Develop procedures to ensure that the A&E nursing staff establishment is developed by registered nurses with training and experience in setting staffing establishments and responsibility for determining nursing staff requirements at A&E departmental level. The procedures should ensure that the A&E nursing staff establishment is approved by the director of nursing or chief nurse (or delegated accountable staff).

1.1.5 Ensure that senior A&E nursing managers (for example, A&E matrons) are accountable for the A&E nursing staff roster that is developed from the A&E nursing staff establishment.

Organisational level actions to enable A&E responsiveness

1.1.6 Develop escalation plans to address risk to patient care posed by:

- variation in demand for A&E services
- variation in patients' nursing needs
- departmental crowding (as agreed locally).

1.1.7 Determine the level of risk at which action should be taken locally, taking into account the size of the A&E department and the availability of neighbouring services.

1.1.8 Ensure that escalation plans contain actions to address unexpected variation in demand for A&E services and patients' nursing needs in the A&E department. These may include:

- addressing patient flow issues throughout the organisation
- moving patients out of the A&E department to an appropriate alternative location (previously agreed by the board)
- sourcing extra staff (for example, using an on-call system)
- collaborating with other organisations to address departmental crowding. These organisations might include: mental health trusts, ambulance trusts, primary and community services, social care services, commissioners.

1.1.9 Ensure that escalation plans also contain actions to:

- make the A&E department safe if departmental crowding cannot be resolved
- respond to deficits in A&E nursing staff without compromising patient care in other parts of the hospital.

1.1.10 Develop escalation plans in collaboration with A&E registered nurses who are responsible for determining nursing staff requirements at A&E departmental level, and other organisations where necessary, to facilitate a whole-system response.

1.1.11 Ensure that the director of nursing or chief nurse (or delegated accountable staff) approves actions within escalation plans related to A&E nursing staff.

Monitoring the adequacy of A&E nursing staff establishments

1.1.12 Review the A&E nursing staff establishment at board level at least every 6 months, ensuring that the review includes analysis of:

- data on variation in demand for A&E services
- nursing red flag events (see box 3)
- safe nursing indicators (see box 4 and section 7).

1.1.13 Review the A&E nursing staff establishment at board level more often than every 6 months if the director of nursing or chief nurse (or delegated accountable staff) identifies that this needed. For example, if:

- staff absenteeism is increasing
- departmental crowding is increasing
- A&E nursing staff deficits occur frequently
- the implementation of escalation plans is increasing
- local services are reconfigured and this may impact on demand for A&E services.

1.1.14 Change the A&E nursing staff establishment if the review indicates this is needed.

1.1.15 Discuss the A&E nursing staff establishment with commissioners at least every 12 months (this may be part of contract reviews).

Monitoring and responding to changes

1.1.16 Ensure that A&E departments have procedures in place for monitoring and responding to unexpected changes in A&E nursing staff requirements throughout a shift.

1.1.17 Ensure that there are procedures in place for:

- informing members of staff, patients, family members and carers what nursing red flag events are (see box 3; for example, by publicising them in public spaces and staff rooms): consider the red flag events that are most relevant to patients and staff, and tailor the information and its location accordingly.
- enabling members of staff, patients, family members and carers to report nursing red flag events (see box 3) to the A&E registered nurse in charge of the shift
- monitoring and responding to nursing red flag events (see box 3).

1.1.18 Ensure that responses to nursing red flag events and unexpected changes in A&E nursing staff requirements do not cause nursing red flag events in other parts of the A&E department or hospital.

Promoting staff training, education and time for indirect care activities

1.1.19 Ensure that all A&E nursing staff receive training to deliver the care they are required to provide, including:

- specialty specific continuing professional development
- statutory and mandatory training
- training in providing care for specific population groups such as children, older people, people with learning disabilities, sensory impairment, mental health needs (including dementia) or complex psychosocial needs.

1.1.20 Ensure that A&E registered nurses have time allocated for training and mentoring other nursing staff such as:

- student nurses
- newly qualified nurses
- nurses who are returning to practice
- nurses who have qualified oversees
- non-registered nursing staff.

1.1.21 Ensure that A&E nursing staff have time allocated for:

- supervising and assessing the competencies of non-registered nursing staff
- taking part in indirect care activities such as clinical governance activities, safeguarding and liaison with other professionals.

1.1.22 Ensure that A&E registered nurses have time allocated for activities related to setting the A&E nursing staff establishment, and assessing the nursing staff needed for each shift, including collecting and analysing data.

1.1.23 Involve A&E nursing staff in developing and maintaining nursing staff policies and governance, including escalation planning.

1.1.24 Facilitate and promote multidisciplinary working in the A&E department.

1.2 Setting the A&E nursing staff establishment

These recommendations are for senior registered nurses who are responsible for determining A&E nursing staff requirements.

1.2.1 Determine the nursing staff establishment for the A&E department at least every 6 months.

1.2.2 Use a systematic process to calculate the A&E nursing staff establishment. The process (or parts of the process) could be supported by a NICE-endorsed toolkit (if available). The process should contain the following components:

- Use historical data about the nursing care needs of people who have attended A&E over a sample period (for example, 7 days).
- Estimate the total number of A&E nursing care hours needed over the sample period. This should take into account: - patient factors, for example acuity and dependency (see box 1 for other examples) - time to undertake patient care activities (see box 2 for examples).
- Divide the total number of A&E nursing care hours by the number of patient attendances in the sample time period to determine the average number of A&E nursing care hours needed per person attending A&E.

- Use historical data about demand for A&E services over at least the past 2 years to predict the likely demand for A&E services in the next 6 months.
- Multiply the predicted number of A&E attendances over the next 6 months by the average number of nursing care hours needed per patient attendance to determine the predicted total number of A&E nursing care hours needed over the next 6 months.
- From the total predicted number of A&E nursing care hours, identify the hours of nursing time and skill mix needed to deliver the patient care activities that are required. Take into account the following: environmental factors, for example seasonal variance (see box 1 for other examples); staffing factors, for example the availability of other members of the A&E multidisciplinary team and the activities that can be provided by them (see box 1 for other examples); the patient care activities that can be safely delegated to trained and competent non-registered nursing staff; unpredictable variation in attendances. Adjust the predicted number of A&E nursing care hours to ensure that any need for higher than expected actual nursing care hours can be met at least 85% of the time.
- Allow for the following: meeting the following ratios: ◊ 1 registered nurse to 1 cubicle in triage ◊ 1 registered nurse to 4 cubicles in majors ◊ 1 registered nurse to 2 cubicles in the resuscitation area; meeting nurse-to-patient ratios for the following situations when needed: ◊ major trauma (2 registered nurses to 1 patient) ◊ cardiac arrest (2 registered nurses to 1 patient) ◊ priority ambulance calls (1 registered nurse to 1 patient); the locally defined rate of uplift (for example, to allow for annual leave, maternity leave, paternity leave, study leave and sickness absence).
- Divide the total number of A&E nursing care hours by 26 to give the average number of A&E nursing care hours needed per week over the next 6 months.
- Divide the weekly average by the number of hours for a full-time working week to determine the number of whole-time equivalents needed for the A&E nursing staff establishment over the next 6 months.
- Convert the number of whole-time equivalents into the annual A&E nursing staff establishment.

See figure 1 for a summary of this process.

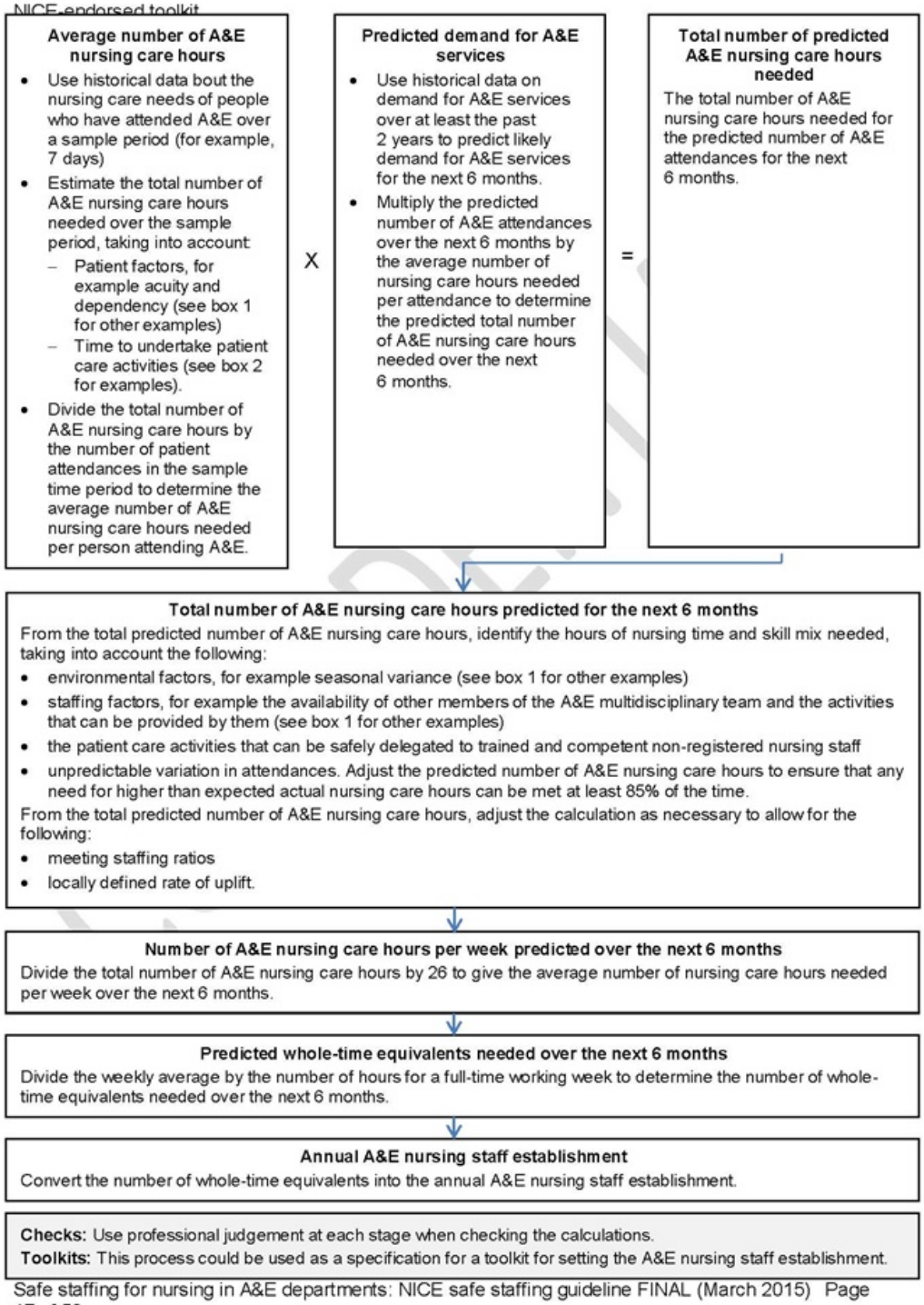
1.2.3 Use professional judgement at each stage of the calculation and when checking the calculations for the A&E nursing staff establishment.

1.2.4 Base the A&E nursing staff roster on the A&E nursing staff establishment calculations, taking into account the following:

- Predicted variation in demand for A&E services according to time of day and day of week. Consider staggering shift start times of individual nursing staff to correspond with peaks in demand.
- Enabling family liaison to be provided for patients, family members and carers receiving life-changing news.
- Ensuring that 1 band 7 (or equivalent pay band) registered nurse is included on every shift at all times to lead, supervise and oversee the shift.

Figure 1 Systematic process to calculate the A&E nursing staff establishment

This diagram outlines the process described in recommendation 1.2.2, which could be supported by a NICE-endorsed toolkit.



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Safe staffing figure 1

Figure 1: Systematic process to calculate the A&E nursing staff establishment

Box 1 Examples of factors to consider when determining A&E nursing staff requirements

Patient factors

- Number of patients attending A&E.
- Patient case mix: Patient demographics (for example, patients whose first language is not English, older people, people with learning disabilities, sensory impairment, mental health needs [including dementia] or complex psychosocial needs); Patient acuity; Patient dependency (for example, as measured by the Jones Dependency Tool or other similar tool).
- Patient hours spent in the A&E department.
- Patient support needed (for example, the support they need to return home when discharged from the A&E department).
- Needs of patients, family members and carers who may be receiving life-changing news.

Environmental factors

- Functions of the A&E department (for example, whether there is an integrated 'observation' ward or clinical decision unit).
- Proximity of related units within the hospital (for example, clinical decision units, 'observation' wards or imaging departments) and where patients might go when they leave the A&E department (for example, medical admissions ward).
- Layout of the A&E department (for example, number of side rooms and bays for specific services such as minors, majors or resuscitation).
- Local geography and availability of neighbouring services.
- Proximity of related units outside the hospital (for example, specialist major trauma centres).
- Seasonal variance, bank holidays and local events (for example, local festivals).

Staffing factors

- Nursing activities and responsibilities, other than direct patient care, including: Accompanying patients being transferred within the hospital or to another hospital or unit; Communicating with family members and carers; Family liaison to support family members and carers who may be receiving life-changing news in relation to the health of a loved one; Liaison with other specialists, departments or services (for example, social care or mental health services) outside the A&E department; Training and mentorship of student nurses; Training and supervision for non-registered nursing staff; Undertaking audit.
- Availability of other members of the A&E multidisciplinary team (for example, other clinicians, support staff and administrative staff).
- Proportion of A&E nursing staff with specialist skills (for example, in mental health or children's nursing).
- Proportion of temporary A&E nursing staff.

Box 2 Examples of patient care activities that affect A&E nursing staff

requirements

The actual time needed for A&E nursing activities will be dependent on the individual needs of patients.

Examples of care activities (about 5-10 minutes per activity)			
Reception of patients	Assessing pain and administering pain relief	Initial wound assessment and care	Observations
Requesting investigations	*Receiving all patients arriving by ambulance*		

Examples of care activities (about 10-20 minutes per activity)			
Assessing pain and administering pain relief	Administering medication	Providing instructions and written information to patients, family members and carers	Handover to wards/other services
Prioritising	Skin and pressure area care	Obtaining patient information (for example, previous case notes)	Liaising with outside agencies
Initial risk assessment	Meeting immediate nursing needs	Onward referral	Checking, cleaning and restocking equipment
Preparing equipment for procedures	Supervising non-registered nursing staff	Coordinating patient reviews from other professionals or agencies	Liaising with other staff/departments (for example, sourcing inpatient beds)
Requesting and negotiating beds for admission			

Examples of care activities (about 20-30 minutes per activity)			
Assessing patients with undifferentiated presentations	Carrying out investigations	Treatments (for example, complex wound care)	Discharge planning, arranging transport and safe discharge follow-up
Personal care (for example, toileting, nutrition, hydration and positioning)	Procedures (for example, catheterisation)	Patient escorts (for internal transfers)	Involving patients, their family members and/or carers in decisions about their care
	Ensuring patient		

Coordinating and allocating available resources during a shift	*Ensuring patient flow and mitigating against crowding issues*	*De-escalating potentially volatile situations*

Examples of care activities (up to 60 minutes and beyond per activity)			
Safeguarding vulnerable children and adults	Support for family members and carers	Patient escorts (for external transfers)	Care after death
Care of relatives in cases of sudden death/complex issues	Collecting data (for example, feedback from patients, information for revalidation purposes, audit, information for setting the staffing establishment)	Deploying appropriate actions if major incident declared	Reviewing staffing for next 48 hours

Examples of activities that may need additional time (approximately an additional 25%)		
Providing additional support for children, older people, people with learning disabilities, sensory impairment, mental health needs (including dementia) and complex psychosocial needs (10-30 minutes)	Difficulties with communication including sensory impairment or language barriers (several hours if a translator is required)	Specialist trolleys/equipment, for example in resuscitation) (45-60 minutes)
Note: these activities are only a guide and there may be other activities that could also be considered Activities the nurse in charge of the shift needs to carry out are indicated in italics.		

1.3 Assessing differences in the number and skill mix of A&E nursing staff needed and number of A&E nursing staff available

These recommendations are for senior registered nurses who are in charge of shifts in the A&E department.

1.3.1 Assess differences between the A&E nursing staff needed and the number of staff available at the beginning of every shift, for the current and following shift, using professional judgement. This assessment could be facilitated by using an evidence-based toolkit endorsed by NICE. Take into account the patient, staffing and environmental factors outlined in box 1.

1.3.2 Reassess and record differences between the A&E nursing staff needed and the number of staff available during a shift when:

- there is unexpected variation in demand for A&E services or patients' nursing needs
- there is unplanned staff absence during the shift
- patients are spending longer than needed in the A&E department
- patients need extra support, specialist input or continuous nursing
- a nursing red flag event has occurred (see box 3).

1.3.3 Follow escalation plans if the number of A&E nursing staff available is different from the number of staff needed (see recommendation 1.1.8).

1.3.4 Notify the registered nurse in charge of the shift if a nursing red flag event occurs (see box 3 for examples). The registered nurse in charge should determine whether A&E nursing staff levels are the cause of the event, and the action that needs to be taken.

1.3.5 Record nursing red flag events (including any locally agreed nursing red flag events) for reviewing, if they are assessed to be linked to A&E nursing staff levels.

Box 3 Nursing red flag events

A nursing red flag event is a warning sign that something may be wrong with nursing staff levels. If a nursing red flag event occurs, the nurse in charge of the shift should be notified. The nurse in charge should determine whether nursing staff levels are the cause of the event, and the action that needs to be taken.

- Missed care, for example: delay of more than 30 minutes in providing pain relief; delay of more than 10 minutes in meeting patients' toileting needs; delay of more than 30 minutes in meeting patients' hydration or nutrition needs.
- Falls (occurring in the A&E department).
- Patients leaving the A&E department against advice.
- Missing patients.
- A shortfall of more than 25% of registered nurse time available compared with the actual requirement during the shift.
- Violence and aggression towards staff (for example, from patients, family members or carers).
- A crowded A&E department.

Other nursing red flag events may be agreed locally.

1.4 Monitoring and evaluating A&E nursing staff establishments

These recommendations are for senior management and registered nursing managers.

1.4.1 Monitor whether the A&E nursing staff establishment adequately meets patients' nursing needs using the safe nursing indicators in box 4 (and any locally agreed A&E safe nursing indicators). Consider continuous data collection of these safe nursing indicators (using data already routinely collected locally where available) and analyse the results. Section 7 gives further guidance on these indicators.

1.4.2 Compare the results of the safe nursing indicators with previous results at least every 6 months.

1.4.3 Analyse reported nursing red flag events (see box 3) and any additional locally agreed nursing red flag events, and the action taken in response, if the events were assessed to be linked to A&E nursing staff levels.

1.4.4 Review the adequacy of the A&E nursing staff establishment (see recommendations 1.1.12 and 1.1.13) if indicated by the analysis of nursing red flag events, safe nursing indicators or differences between the number of A&E nursing staff needed and those available.

Box 4 A&E safe nursing indicators

Patient experience measures

Data for these indicators can be collected using the Accident and Emergency Department (A&E) survey and A&E clinical quality indicators:

- Service experience of patients using A&E services.
- Length of time waiting to first speak to or be examined by a nurse.
- Adequacy of care and treatment in terms of reassurance, privacy, respect and dignity.

Clinical quality indicators

Data for these indicators can be collected using the A&E clinical quality indicators:

- Patient left without being seen – number of attendances where the patient left without being seen by a clinician.
- Total time spent in the A&E department – time spent from arrival at A&E to admission, transfer or discharge.
- Time to initial assessment – time from arrival to start of full initial assessment, which includes a brief history, pain and early warning scores (including vital signs) for all patients arriving by emergency ambulance.

Staff-reported measures

Data can be collected for some of the following indicators using the NHS staff survey:

- Missed breaks – record the proportion of expected breaks that were unable to be taken by A&E nursing staff.

- A&E nursing overtime work – record the proportion of A&E nursing staff working extra hours (both paid and unpaid).
- A&E appraisals – record whether an appraisal has taken place in the past 12 months.
- Staff morale – record the proportion of A&E nursing staff with job satisfaction.

A&E nursing staff establishment measures

Data can be collected for some of the following indicators from the NHS England and Care Quality Commission joint guidance to trusts on the delivery of the 'Hard Truths' commitments on publishing staffing data regarding nursing, midwifery and care staff levels and more detailed data collection advice since provided by NHS England.

- High levels and/or ongoing reliance on temporary nursing staff – record the proportion of hours provided by bank and agency nursing staff in the A&E department (the agreed acceptable levels should be established locally).
- High levels of staff turnover – record the rates of nursing staff turnover in the A&E department (the agreed acceptable levels should be established locally).
- Compliance with any mandatory training in accordance with local policy (this is an indicator of the adequacy of the size of the A&E nursing staff establishment).

Note: other A&E nursing staff indicators may be agreed locally.

Evidence

The Committee considered the following reports, which are available on the NICE website.

Evidence review: Drennan J, Recio Saucedo A, Pope C et al. (2014) Safe Staffing for Nursing in Accident and Emergency Departments. University of Southampton.

The evidence review considered the following review questions:

- What patient outcomes are associated with safe staffing of the nursing team?: Is there evidence that demonstrates a relationship between nursing staff numbers and increased risk of harm?; Which outcomes should be used as indicators of safe staffing?
- What patient factors affect nursing staff requirements as patients progress through an A&E department? These include: Patient case mix and volume, determined by, for example, local demographics and seasonal variation, or trends in attendance rates (such as bank holidays, local or national events, and the out-of-hours period); Patient acuity such as how ill the patient is, their increased risk of clinical deterioration and how complex and time consuming the care they need is; Patient dependency; Patient risk factors, including

psychosocial complexity and safeguarding; Patient support (that is, family, relatives, carers); Patient triage score; Patient turnover.

- What environmental factors affect nursing staff requirements as patients progress through an A&E department? These include: Availability and physical proximity of other separate units (such as for triage) or clinical specialties, such as the 'seven key specialties' (that is, critical care, acute medicine, imaging, laboratory services, paediatrics, orthopaedics and general surgery), and other services such as social care; Department size and physical layout; Department type (for example, whether it is a major trauma centre).
- What staffing factors affect nursing staff requirements as patients progress through an A&E department? These include: Availability of, and care and services provided by other multidisciplinary team members such as emergency medicine consultants, anaesthetists, psychiatrists, pharmacists, social workers, paramedics and advanced nurse practitioners and emergency nurse practitioners who are not part of the core A&E nursing establishment; Division of activities and balance of tasks between registered nurses, healthcare assistants, specialist nurses and other healthcare staff who are part of the A&E team; Models of nursing care (for example, triage, rapid assessment and treatment); Nursing experience, skill mix and specialisms; Nursing staff transfer duties within the hospital and to external specialist units; Nursing team management and administration approaches (for example, shift patterns) and non-clinical arrangements; Proportion of temporary nursing staff (for example, bank and agency); Staff and student supervision and teaching.
- What approaches for identifying nursing staff requirements and/or skill mix, including toolkits, are effective and how frequently should they be used?: What evidence is available on the reliability and/or validity of any identified toolkits?
- What organisational factors influence nursing staff requirements at a departmental level? These include: Availability of other units or assessment models such as short-term medical assessment or clinical decision units, ambulatory care facilities or a general practitioner working within the hospital; Crowding (for example, local factors influencing bed occupancy levels and attendance rates such as changes in usual climate temperatures which results in over-full A&E or wards); Organisational management structures and approaches; Organisational culture; Organisational policies and procedures, including staff training; Physical availability of inpatient wards or specialist units to transfer patients out of A&E to other parts of the hospital.

Economic analysis: Optimity Matrix (2014).The economic analysis used the best available evidence and data from the UK to examine the trade-offs between outcomes and cost and investigated the effects of varying attendance volumes, staff numbers and skill mixes.

Report on field testing of the draft guideline: presented results of testing the use of the draft guideline with A&E nursing managers and staff.

Gaps in the evidence

The Safe Staffing Advisory Committee identified a number of gaps in the available evidence and expert comment related to the topics being considered. These are summarised below.

- There is limited evidence directly identifying the relationship between safe staffing of the A&E nursing team and patient safety outcomes.
- There is no evidence about environmental factors that might modify the relationship between A&E nursing staff requirements and patient safety outcomes.
- There is limited evidence about organisational, staffing and patient factors that might modify the relationship between A&E nurse staffing requirements and patient safety outcomes.
- There is a lack of studies exploring the relationship between registered nursing staff, non-registered nursing staff and nursing staff skill mix, and patient safety outcomes in the A&E department.
- There is a lack of evidence for approaches, frameworks, methods or toolkits used to determine staffing requirements.
- There is a lack of economic evidence around safe staffing for nursing in A&E departments.
- There is a lack of UK-based published primary studies about mandatory nurse-to- patient ratios in A&E departments.
- There are limited data on A&E patient volume, dependency, duration of stay and discharge destination over time and across hospitals, particularly about the relationship between predictable demand and unexpected variation.

Research recommendations

Relationship between staffing of the A&E nursing team and outcomes

What is the relationship between staffing of the A&E nursing team and outcomes in the UK, and what factors act as modifiers or confounders of the relationship between staffing and outcomes?

Why this is important

The guideline found some evidence of a relationship between staffing of the A&E nursing team and outcomes, such as patients leaving the department without being seen, time spent in the department, and patient satisfaction. However, the evidence was weak, inconsistent, potentially subject to bias and unclear about the direction of the effect. There were few studies conducted in the UK or on a large scale, and no evidence examining the association between A&E nursing staff levels and direct clinical outcomes, such as ‘never events’ or patient falls. In addition, it is unclear if any of the following factors modify or confound the relationship between staffing of the A&E nursing team and outcomes:

- patient factors (for example, acuity and dependency)
- environmental factors (for example, department layout, time of day and day of week)

- staffing factors (for example, skill mix, including registered nursing staff and a range of non-registered nursing roles)
- organisational factors (for example, crowding in A&E departments)
- cost and resource use, including economic modelling.

Further research is needed to explore the relationships between staffing of the A&E nursing team and clinical, patient experience and staff outcomes. This research would help to establish whether staffing ratios can be identified and recommended. Prospective cohort studies should be conducted to examine the relationship between the factors above and both positive and negative outcomes relating to nursing care, patient safety, patient and nursing staff satisfaction, resource use and costs. The studies should also examine if these factors act as an effect modifier and/or confounder of the relationship between staffing and outcomes. Research should control for other confounding factors (such as patient characteristics) and in the event that observational data is used, researchers should ideally address any issues of potential endogeneity caused by non-random allocation of staff, in particular where greater numbers or higher graded A&E nursing staff are allocated to address a more demanding patient case-mix.

This research should provide evidence on the factors that should be included in approaches to determining nursing staff requirements for A&E departments, including toolkits.

Approaches and toolkits to determine nursing staff requirements

What is the effectiveness of using defined specific approaches or toolkits to determine nursing staff requirements and skill mix in A&E departments in England?

Why this is important

There is insufficient evidence available about whether using defined approaches or toolkits for determining nursing staff requirements in A&E departments has an impact on patient and staff outcomes.

Cluster randomised controlled trials or prospective cohort studies should be designed to compare outcomes relating to nursing care, patient safety, and patient and nursing staff satisfaction in A&E departments that use defined approaches or toolkits to other approaches or professional judgement. Replicate studies should be carried out to provide evidence of reliability and validity.

These comparative studies should help to assess the value of using defined approaches and toolkits, and to identify those that perform best.

Safe nursing indicators

Patient experience measures

A&E safe nursing indicator: service experience, length of time waiting and adequacy of care and treatment

Data collection

Local collection could use the following Accident and Emergency Department (A&E) survey questions developed by the Care Quality Commission which contains a number of questions where the patient's experience of care could be affected by the number of available nursing staff:

Doctors and nurses

Q.10 Did you have enough time to discuss your health or medical problem with the doctor or nurse?1

Your care and treatment

Q.17 While you were in the A&E department, how much information about your condition or treatment was given to you?

Q.19 If you needed attention, were you able to get a member of medical or nursing staff to help you?Error! Bookmark not defined. Pain Q.30 Do you think the hospital staff did everything they could to help control your pain?Error! Bookmark not defined.

Local collection of patient experience could use these questions to provide a more frequent view of performance than is possible through annual surveys alone, but please note NHS Surveys asks that local patient surveys avoid overlap with national patient surveys.

Outcome measures

Patient satisfaction with A&E care and treatment.

Data analysis and interpretation

The annual national survey results for your hospital can be compared with previous results from the same hospital and with data from other hospitals (but be aware that comparison between hospitals is subject to variation in expectations of care between different populations). Data from more frequent local data collection, where available, can be compared with previous results and with data from other wards in your hospital.

Clinical quality indicators

A&E safe nursing indicator: patients leaving without being seen

Measure

Patients leaving without being seen: record any attendance at A&E where a patient left without being seen in accordance with the A&E clinical quality indicators.

Definition

A patient is defined as leaving without being seen when any attendance results in the patient leaving without receiving treatment as described in indicator 4 of the A&E clinical quality indicators.

Data collection

Proportion of attendances at an A&E department in which an attendance is recorded as left before being seen.

Numerator: the number in the denominator with an attendance code of left before being seen.

Denominator: number of A&E department attendances.

Data source: Local data collection. These data are currently collected by the Health and Social Care Information Centre in A&E clinical quality indicators generated by Hospital Episode Statistics (HES).

Outcome measure

Rate of A&E attendance without being seen.

Data analysis and interpretation

The rate of A&E attendances where patients leave without being seen may be sensitive to the number of available nursing staff in an A&E department. Treatment for patients who attend A&E departments needs a multidisciplinary approach, and leaving without being seen rates may also be affected by:

- patient choice, availability and accessibility
- availability and accessibility of appropriate facilities
- availability of all healthcare professionals and support staff
- knowledge and skills of all healthcare professionals and support staff.

Clinical quality indicators

A&E safe nursing indicator: total time spent in the A&E department

Measure

Total time spent in the A&E department: time spent from arrival at A&E to admission, transfer or discharge. Data can be collected via A&E clinical quality indicators.

Definition

Total time spent in the A&E department is defined as the time between arrival and registration on the hospital information systems to the time that the patient leaves the department to return home or to be admitted to the ward bed (including the A&E department observation beds) in line with indicator 3 of the A&E clinical quality indicators.

Data collection

Median time spent from arrival at A&E to admission, transfer or discharge.

Data source: Local data collection. These data are currently collected by the Health and Social Care Information Centre in A&E clinical quality indicators generated by Hospital Episode Statistics (HES).

Data analysis and interpretation

The median time spent in A&E should be compared with previous results from the A&E department.

Although the median time spent in A&E may be sensitive to the number of available nursing staff and support they offer, care in the A&E department is provided by a multidisciplinary team. Time spent in A&E may also be affected by:

- availability of appropriate facilities
- availability of all healthcare professionals and support staff
- knowledge and skills of all healthcare professionals and support staff.

Clinical quality indicators

A&E safe nursing indicator: time to initial assessment

Measure

Time to initial assessment: time from arrival to start of full initial assessment, which includes a brief history, pain and early warning scores (including vital signs) for all patients arriving by emergency ambulance. Data can be collected via A&E clinical quality indicators.

Definition

Time from arrival by emergency ambulance to start of full initial assessment, which includes a brief history, pain and early warning scores (including vital signs) as described in indicator 6 of the A&E clinical quality indicators.

Data collection

Proportion of patient hours spent in A&E from arrival by emergency ambulance to start of full initial assessment.

Numerator: the number of total patient hours spent in A&E from arrival to start of full initial assessment.

Denominator: number of A&E department attendance arrivals by emergency ambulance.

Data source: Local data collection. These data are currently collected by the Health and Social Care Information Centre in A&E clinical quality indicators generated by Hospital Episode Statistics (HES).

Outcome measures

Patient safety.

Data analysis and interpretation

Time to initial assessment should be compared with previous results from the A&E department.

Although the time to initial assessment in A&E may be sensitive to the number of available nursing staff and support they offer, care in the A&E department is provided by a multidisciplinary team. Time spent in A&E may also be affected by:

- patient choice
- availability of appropriate facilities
- availability of all healthcare professionals and support staff
- knowledge and skills of all healthcare professionals and support staff.

Staff-reported measures

A&E safe nursing indicator: missed breaks

Measure

Missed breaks: record the proportion of expected breaks that were not taken by A&E nursing staff.

Definition

A missed break occurs when nursing staff are unable to take a scheduled break because of lack of time, staff shortage or departmental demand.

Data collection

Proportion of expected breaks for nursing staff working in A&E that were not taken.

Numerator: the number in the denominator that were not taken.

Denominator: the number of expected breaks for nursing staff in A&E.

Data source: Local data collection.

Outcome measures

Proportion of missed breaks because of lack of time among nursing staff in A&E.

Staff-reported measures

A&E safe nursing indicator: A&E nursing overtime work

Measure

A&E nursing overtime work: record the proportion of A&E nursing staff working extra hours (both paid and unpaid). Data can be collected via NHS staff survey.

Definition

Nursing overtime includes any extra hours (both paid and unpaid) that nursing staff are required to work beyond their contracted hours at either end of their shift.

Data collection

a) Proportion of nursing staff in A&E departments working overtime.

Numerator: the number in the denominator working overtime.

Denominator: the number of nursing staff in A&E departments.

Data source: Local data collection. Data are also collected nationally on the number of staff working extra hours (paid and unpaid) in the NHS Staff Survey by the Picker Institute.

b) Proportion of nursing hours worked in A&E departments that are overtime.

Numerator: the number in the denominator that are overtime.

Denominator: the number of nursing hours worked in A&E departments.

Data source: Local data collection. Data are also collected nationally on the number of staff working extra hours (paid and unpaid) in the NHS Staff Survey by the Picker Institute.

Outcome measures

Staff experience.

Staff-reported measures

A&E safe nursing indicator: A&E appraisals

Measure

A&E appraisals: record whether an appraisal has taken place in the past 12 months. Data can be collected via NHS staff survey.

Definition

A&E appraisal includes whether an appraisal, annual review, development review, or knowledge and skills framework (KSF) development review took place within the past 12 months.

Data collection

Proportion of nursing staff in A&E departments who had an appraisal within the past 12 months.

Numerator: the number in the denominator who had an appraisal within the past 12 months.

Denominator: the number of nursing staff in A&E departments.

Data source: Local data collection. Data are also collected nationally on the number of staff receiving appraisals NHS Staff Survey by the Picker Institute.

Outcome measures

Staff experience.

Staff-reported measures

A&E safe nursing indicator: Staff morale

Measure

Staff morale: record the proportion of A&E nursing staff reporting job satisfaction. Data can be collected via NHS staff survey.

Definition

Nursing staff morale includes the proportion of nurses who claim to have job satisfaction.

Data collection

Proportion of nursing staff in A&E departments who report job satisfaction.

Numerator: the number in the denominator who report job satisfaction.

Denominator: the number of nursing staff in A&E departments.

Data source: Local data collection. Data are also collected nationally on staff morale in the NHS Staff Survey by the Picker Institute.

Outcome measures

a) A&E nursing job satisfaction.

b) Rates of A&E nursing staff turnover.

c) Rates of sickness.

A&E nursing staff establishment measures

A&E safe nursing indicator: high levels and/or ongoing reliance on temporary nursing staff

Measure

High levels and/or ongoing reliance on temporary nursing staff: Record the proportion of hours provided by bank and agency nursing staff in the A&E department (the agreed acceptable levels should be established locally).

Definition

Registered nurses who are working in A&E departments who are not contracted with the A&E department.

Data collection

a) Proportion of registered nurses who are working in A&E departments who are not contracted with the A&E department.

Numerator: the number in the denominator who are employed on bank contracts.

Denominator: the number of registered nurse shifts per calendar month to work in the A&E department.

Data source: Local data collection.

b) Proportion of nurses who are working in A&E departments who are on agency contracts.

Numerator: the number in the denominator who are employed on agency contracts.

Denominator: the number of registered nurse shifts per calendar month to work in the A&E department.

Data source: Local data collection.

Outcome measures

Expenditure (£) on bank and agency staff.

A&E nursing staff establishment measures

A&E safe nursing indicator: high levels of staff turnover

Measure

High levels of staff turnover: record the rates of nursing staff turnover in the A&E department (the agreed acceptable levels should be established locally).

Definition

Registered nurses working in A&E departments who leave the department to work on another ward or in another organisation.

Data collection

Proportion of registered nurses who leave the A&E department.

Numerator: the number in the denominator who leave the A&E department.

Denominator: the number of registered nurses in the A&E department.

Data source: Local data collection.

Outcome measures

Nursing turnover rate.

A&E nursing staff establishment measures

A&E safe nursing indicator: compliance with any mandatory training in accordance with local policy

Measure

Compliance with any mandatory training in accordance with local policy (this is an indicator of the adequacy of the size of the A&E nursing staff establishment).

Definition

Nurses working in A&E departments who are compliant with the mandatory training that has been agreed in line with local policy.

Data collection

Proportion of registered nurses working in the A&E department who are compliant with all mandatory training.

Numerator: the number in the denominator who are compliant with all mandatory training.

Denominator: the number of registered nurses in the A&E department.

Data source: Local data collection.

Outcome measures

Percentage compliance with all mandatory training.

About this guideline

How this guideline was developed

The Department of Health and NHS England asked the National Institute for Health and Care Excellence (NICE) to produce this guideline on safe staffing for nursing in A&E departments (see the scope).

The recommendations are based on the best available evidence. They were developed by the Safe Staffing Advisory Committee – for membership see section 6.

The guideline was developed in line with the methods and processes contained in Developing NICE guidelines: the manual.

Other versions of this guideline

The recommendations from this guideline have been incorporated into a NICE Pathway.

We have produced information for the public about this guideline.

Implementation

Implementation tools and resources to help you put the guideline into practice are also available.

See the NICE website for details of the NICE endorsement programme for further information about toolkit endorsement.

Your responsibility

This guideline represents the views of NICE and was arrived at after careful consideration of the evidence available and the Committee's considerations. Those working in the NHS, local authorities, the wider public, voluntary and community sectors and the private sector should take it into account when carrying out their professional, managerial or voluntary duties.

Implementation of this guideline is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guideline, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.