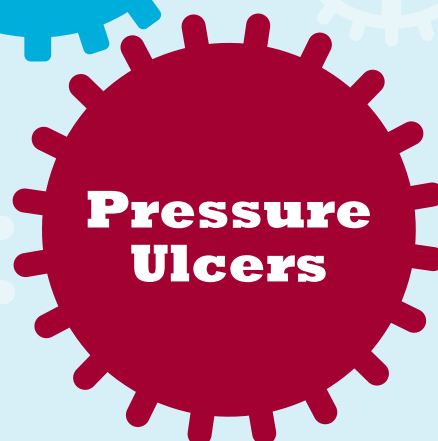
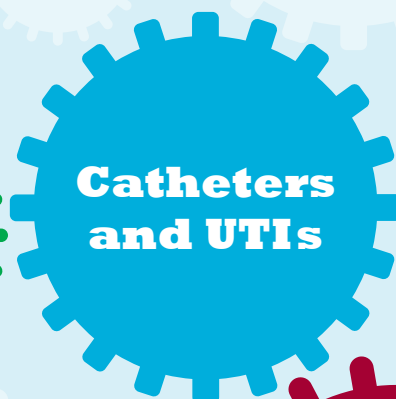
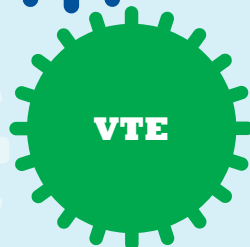


Delivering the NHS Safety Thermometer CQUIN 2012/13

A Preliminary Guide to Measuring 'Harm Free' Care



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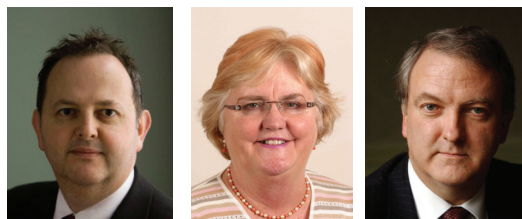
Document Purpose	Best Practice Guidance
Gateway Reference	17612
Title	Delivering the NHS Safety Thermometer CQUIN 2012/13; A Preliminary Guide to Delivering 'Harm Free' Care
Author	QIPP Safe Care team
Publication Date	May 2012
Target Audience	PCT Cluster CEs, NHS Trust CEs, SHA Cluster CEs, Care Trust CEs, Foundation Trust CEs , Medical Directors, Directors of Nursing, PCT Cluster Chairs, NHS Trust Board Chairs, Directors of Finance
Circulation List	
Description	This guide is designed to provide support in implementing the NHS Safety Thermometer and achieving the 2012/13 CQUIN. It shares learning about the best ways to use the tool and what support is available. It offers technical support in validating data and enables readers to start to understand their data.
Cross Ref	Using the Commissioning for Quality and Innovation (CQUIN) payment framework - guidance on new national goals for 2012-13, April 2012
Superseded Docs	n/a
Action Required	n/a
Timing	n/a
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For Recipient's Use	

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Foreword

Jim Easton, National Director for Improvement, Department of Health
Dame Christine Beasley, DBE, Chief Nursing Officer for England
Professor Sir Bruce Keogh, NHS Medical Director



Measurement of patient safety is a global challenge. There is no perfect way to approach it but there is a cohort of people who are dedicated to understanding harm and who want to measure patient safety together. Services are shifting into the community and we know that we need a measurement system that reflects this change in care delivery. It is these challenges that have been the driving force behind the development of the NHS Safety Thermometer.

The NHS Safety Thermometer is a local improvement tool for measuring, monitoring and analysing patient harms and 'harm free' care. Throughout 2011, the QIPP (Quality, Innovation, Productivity and Prevention) Safe Care coalition and over 160 NHS provider organisations developed and tested the NHS Safety Thermometer. The tool measures four high-volume patient safety issues (pressure ulcers, falls in care, urinary infection (in patients with a catheter) and treatment for venous thromboembolism). We acknowledge that some organisations may have more sophisticated measurement systems in place, but there are many others who do not. We do not want to undermine progress and innovation in anyway, but we know that the NHS Outcomes Framework and policy direction requires us to focus on a small number of key outcomes that we must measure together. We want to commit to both measuring together and delivering improvement through a focus on 'harm free' care.

The purpose of this guide is to provide support in implementing the NHS Safety Thermometer and achieving the CQUIN for 2012/13. It shares learning from the community of healthcare professionals who tested the tool in the pilot about the best ways to use the tool and highlights support that is available. This guide offers technical support in validating data and enables readers to start to understand their NHS Safety Thermometer data.

The next guide will support you in ensuring the NHS Safety Thermometer is embedded in your patient safety culture and will contain guidance directed to commissioners on using the data to set improvement goals for the second year of the CQUIN.

Other resources to support the NHS Safety Thermometer are available at www.harmfreecare.org/measurement/nhs-safety-thermometer

Preface

Maxine Power, Executive Director, NHS QUEST (National Improvement Advisor and QIPP Safe Care Lead, Department of Health 2010-2011)

Dr Kevin Stewart, FRCP, Clinical Director, Clinical Effectiveness and Evaluation Unit and Royal College of Physicians (Medical Director, QIPP Safe Care 2010-2011)



The last two years of the QIPP safe care national work stream has seen the clinical leadership of safety improvement escalate beyond all expectations. Adoption by the department of health of the NHS Safety Thermometer in the 2012 NHS Operating Framework signals strongly the commitment from NHS leaders to patient safety.

The data will provide a globally unprecedented move to measure safety across key measures at scale and equitably across care settings. Furthermore, the fact that this Instrument was co-produced with the NHS and adopted rapidly demonstrates how innovations from the NHS frontline can be adopted quickly into commissioning and policy. In the future we will see many more innovations coming through in this way.

The NHS Safety Thermometer was developed by the NHS for the NHS and will continue to mature during 2012-13 when we will be consulting more widely with users and specialty groups across a range of healthcare settings to further refine the instrument use, it's operational definitions and understand the power of the data for improvement.

The work to develop the NHS Safety Thermometer began in 2009 and responded to a need for a vehicle to operationalise the nurse-sensitive indicators agreed by the nursing profession under the leadership of the Chief Nurse. Since then the

development has been accomplished in rapid cycles of testing around four key drivers, operational definitions, technical specification, user satisfaction and collection methods and validity.

Working with a coalition of clinically-led stakeholders we have been able to accomplish a globally unprecedented achievement with the NHS Safety Thermometer, an instrument which can be used to take the 'temperature' of your organisation or clinical setting around four key harms: pressure ulcers, falls, urine infection (in patients with a catheter) and VTE. Not only are these complications of care now being referred to as harm, suggesting a shifting mindset in patient safety improvement, but they have become the focus of the NHS.

The resources to build awareness and tell the story have been generously created by committed professionals that wish to see a different future where patient safety improvement connects with everyone and where we all strive to deliver 'harm free' care for every patient, every day, every where.

Although we have directed this guidance primarily towards nurses, patient safety is everybody's business so it is equally important that doctors, therapists and other members of the clinical team are involved. Some Trusts have also very successfully involved students in their data collection and have found that there are excellent educational and development opportunities for these future clinicians.

This NHS safety thermometer is one of a series of safety thermometers that will be tested over coming months and years. If you have ideas or suggestions we strongly encourage you to go to our website www.harmfreecare.org or use the feedback submissions at the end of this document to forward your suggestions to us. ALL comments will be reviewed by our steering group and a response made.

Good luck and remember - it's not just counting, it's caring.

Introduction to the NHS Safety Thermometer CQUIN

Data from research studies and other reliable sources indicate that approximately 10% of patients are harmed during their healthcare experience¹. Overall, this suggests that 900,000 patients per year experience some harm while receiving healthcare with an estimated impact on healthcare spend of approximately £1 billion per year. This CQUIN incentivises the collection of data on patient harm using the NHS Safety Thermometer (developed as part of the QIPP Safe Care national work stream) to survey all relevant patients in all relevant NHS providers in England one day each month.

Measuring harm – the NHS Safety Thermometer

There are several different ways in which we measure harm in healthcare and there are strengths and limitations to the range of approaches available. Presently there is no one method that offers sufficient data, in isolation, in order for us to understand the burden of harm to our patients and healthcare systems. There is an urgent need for us to measure harm outcomes together that are important to patients and to healthcare providers.

It is well known that patients who suffer one harm have a high probability of suffering further harm. It is these patients for whom the burden, dependency and cost of suffering is greatest. Data is rarely cross referenced to determine, for example, what proportion of our patients who have suffered a fall also have a pressure ulcer. Understanding of the overall burden of these harms across the whole health economy at the patient level (wherever the patient is treated), is currently poor. Without measurement of harm across care settings and a fuller understanding of the interdependencies between them, it is impossible to assess if improvement efforts and initiatives have been a success and the most effective interventions are being implemented.

The QIPP Safe Care national work stream (through Safety Express) aimed to address four common harms (pressure ulcers, falls, urinary infection (in patients with a catheter) and venous thromboembolism (VTE)), which can occur in all healthcare settings and profoundly impact patients' quality of life. The four harms are probably not only biologically interdependent (often affecting the same patient group) but are also interdependent from an improvement perspective. This means it is possible that improvements in one area could result in poorer outcomes in another. For example, VTE may be reduced by improving compression stocking prescribing but patients could then be at an increased risk of pressure ulcers if the stockings are incorrectly worn.

The Safety Express programme recognised that the patient safety improvement community could move faster and more efficiently by addressing the interdependencies between common harms and designing interventions and measurement systems which mitigate the risks highlighted above. In doing so, there is also an opportunity to re-frame key patient safety nomenclature from a negative 'harming patients' to a positive focus on 'harm-free patients' or 'harm free' care.

Through wide spread and systematic use of the NHS Safety Thermometer, the understanding of the burden of harm on individuals and patterns of incidence and prevalence of the harms themselves will rapidly improve. This will support frontline teams in developing the most effective and efficient interventions to reduce and eliminate harm to patients.

NHS Safety Thermometer – summary of key functions

The NHS Safety Thermometer contains clinically valid and pragmatic operational definitions for each complication (see page 24), which means it can be used across a range of settings. It gives a timely summary of results which can be used for teams in their improvement work and the data collected can be viewed at the ward, organisation or national level at the push of a button. The instrument is designed to be used by frontline healthcare professionals to measure complications in the place where the patient is being treated (point of care). The NHS Safety Thermometer has two unique features; first it is able to measure the proportion of patients 'harm free' from pressure ulcers, falls, urinary infection (in patients with a catheter) and new VTE i.e. patients who have none of these complications. Second, it provides clinical teams with automated graph and merge functions at the press of a button. Because it is on

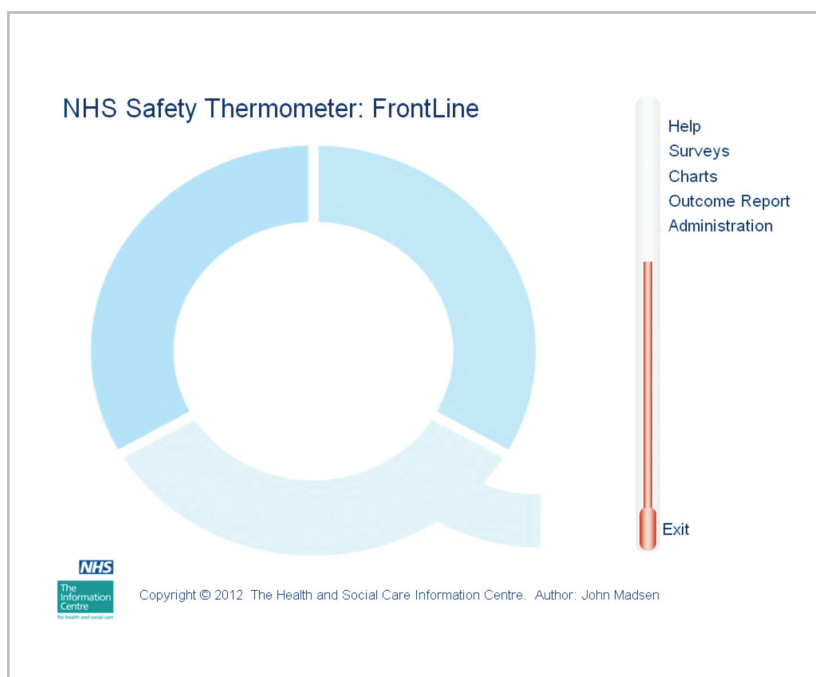


Fig 1
The NHS Safety Thermometer received scrutiny during its development from global experts who met to review the instrument and underwent multiple refinements of definitions and technical specifications. The final version was launched by the NHS Information Centre on the 11th January 2012 and can be accessed at <http://www.ic.nhs.uk/services/nhs-safety-thermometer>

a Microsoft Excel platform it can easily be used in any location and should take less than ten minutes per patient (see figure 1).

About national CQUIN goals

CQUIN (Commissioning for Quality and Innovation) is a national framework for locally agreed quality improvement schemes. It enables commissioners to reward excellence by paying a quality increment to providers using NHS Standard Contracts if they achieve agreed quality improvement goals.

National CQUIN goals reflect areas where there is widespread need for improvement across the NHS. Their

goal is to encourage local engagement and capability building, but also to share good practice, encourage benchmarking and avoid duplication of effort across the country. In 2010/11 and 2011/12, the NHS Operations Board decided to support local health economies by providing a consistent national approach to delivering improvement in two priority areas, VTE and patient experience.

For 2012/13, two additional national goals have been included, relating to dementia and use of the NHS Safety Thermometer. In addition, the amount that providers can earn via CQUIN was defined as 2.5% on top of actual 'outturn' value. The national goals must continue to represent around a fifth of the overall value of the CQUIN schemes (0.5% of actual outturn value) unless there is negligible room for improvement (for example, if a provider is already submitting full returns for the NHS Safety Thermometer). This means

the NHS Safety Thermometer CQUIN scheme is worth between 0.125% and 0.5% of actual outturn value depending on whether all the national CQUINs apply.

Where organisations are already submitting full data for the NHS Safety Thermometer and there is no room for further improvement, commissioners should consider increasing the proportion of national CQUIN payments available for the other national CQUIN goals.

Overview of the NHS Safety Thermometer CQUIN

The NHS Safety Thermometer CQUIN is designed to incentivise the collection of data on patient harm using the NHS Safety Thermometer to survey all relevant patients in all relevant NHS providers in England one day each month.

Participation in data collection using the NHS Safety Thermometer is an important preparatory step for NHS-funded provider organisations in reducing harm. Incentivising use of the NHS Safety Thermometer will increase the participation in this data collection, establish a national baseline of performance on the four harms and provide information on a range of quality indicators. This will allow the establishment of quality improvement aims for later years and contribute to the provision of data required for the NHS Outcomes Framework.

For each provider, fulfilment of the national CQUIN goal in 2012/13 will require monthly surveying on one day of all appropriate patients to collect data on four outcomes (pressure ulcers, falls, urinary tract infection (in patients with catheters) and new VTE). Detailed information on the appropriate patients and relevant settings for use of the NHS

Safety Thermometer are defined on page 29. The intention is for all NHS-funded providers, across community, mental health, acute and residential and nursing care, including NHS-funded independent sector providers, to use the NHS Safety Thermometer. This will allow nationally consistent data to be collected and published as well as facilitating local improvement activity.

The data submitted over the course of 2012/13 will be used in determining potential national quality goals in future years. These may include, for example, incentivising a particular reduction in pressure ulcer prevalence or to reward the level of 'harm free' care as measured by the NHS Safety Thermometer. Providers and commissioners should work together to determine local quality improvement goals. Data collected throughout 2012/13 can be used as a baseline and to identify 'best in class' examples in order to set local improvement goals.

It is recommended that all providers begin use of the national NHS Safety Thermometer measurement tool by the end of 2012/13.

Developing the NHS Safety Thermometer CQUIN

The organisational design of the new NHS places the NHS Outcomes Framework as the central driver for improving the healthcare outcomes that the NHS delivers. It is the framework around which the NHS Commissioning Board is being designed. Domain 5 includes an 'improvement area' indicator that will cover 'incidence of newly acquired category 2, 3 and 4 pressure ulcers (see figure 2).

The NHS Safety Thermometer provides a crucial mechanism for fulfilling this, and a number of other, national aims in addition to being an important tool for organisations seeking to measure and improve the quality of care they provide to patients. While there are some alternative data sources that could be used to construct this indicator, the NHS Safety Thermometer provides a potentially rich information set, in one place, provided its use is sufficiently widespread.

5	Treating and caring for people in a safe environment and protecting them from avoidable harm
Overarching indicators	
5a Patient safety incidents reported 5b Safety incidents involving severe harm or death	
Improvement areas	
Reducing the incidence of avoidable harm 5.1 Incidence of hospital-related venous thromboembolism (VTE) 5.2 Incidence of healthcare associated infection (HCAI) i MRSA ii <i>C difficile</i> 5.3 Incidence of newly-acquired category 2,3 and 4 pressure ulcers 5.4 Incidences of medication errors causing serious harm Improving the safety of maternity services 5.5 Admission of full-term babies to neonatal care Delivering safe care to children in acute settings 5.6 Incidence of harm to children due to 'failure to monitor'	

Fig 2
Domain 5 of the NHS Outcomes Framework addresses the safety of care.

The Government has made clear its desire, and has already made strong progress towards, increasing the transparency of the public sector in order to drive improvements in standards across all areas and achieve greater value for money. This initiative includes the healthcare sector and there is interest in publication of a wider range of indicators relating to quality of care provision. In this context, the successful piloting of the NHS Safety Thermometer provided an obvious opportunity to establish a national data collection that could contribute to these national initiatives and crucially provide a lever to drive improvement of care across the system.

It is clear that the use of the NHS Safety Thermometer requires a regular commitment of people's time to data collection and submission. Experience to date suggests data is best collected at the point of care by a healthcare professional. It is also recognised that some organisations will have their own data collection procedures for monitoring the quality of care provided.

In this context, careful consideration was given to keeping the NHS Safety Thermometer completely voluntary

and preserving the smaller, local nature of the data collection. The option of moving immediately to a nationally mandated data collection was also considered. However, it was decided that, given the need to balance recognition of the amount of work involved in NHS Safety Thermometer use with the need for a nationally consistent and comparable data collection, a national incentive scheme to encourage adoption of the NHS Safety Thermometer was the most appropriate way forward.

By incentivising the whole NHS to begin using the NHS Safety Thermometer, we can allow 2012/13 to represent a period of transition to this tool but also to encourage early adoption and submission of data to support the NHS Outcomes Framework and Government Transparency Agenda.

The tool does not try to replace local collection of other data. It provides a focus on four important areas and a standardised mechanism for national comparison, allowing the public to understand the quality of healthcare being provided across the NHS and the NHS to continue to drive improvements in care. Indeed, data from the NHS

Existing data collections and local tools

Where providers already have in place existing data collections that duplicate the measures in the tool, commissioners should use this national CQUIN to incentivise transition to the NHS Safety Thermometer tool to ensure data is produced that is consistent with the national collection.

It is important to highlight that commissioners and providers can and should also continue to use locally defined tools for collection of harm data, in addition to the national tool described here, to measure improvement across the full range of services provided.

Safety Thermometer would be most useful when combined with other data sources, such as incident reporting systems, to provide a rich picture of harms and 'harm free' care.

Commissioners and providers may also wish to extend the general approach to identify harms not currently covered by the NHS Safety Thermometer, but for which good local baseline measures are or could be established.

Comparison with the national VTE CQUIN

It is important to clarify the relationship between the new national CQUIN for the NHS Safety Thermometer and the existing national CQUIN for incentivising VTE risk assessment on admission. The new national NHS Safety Thermometer CQUIN does not replace or affect the national VTE CQUIN in any way (see figure 3). Both incentive schemes should be included in all relevant contractual agreements between providers and commissioners (except where appropriately exempt).

The VTE CQUIN and the NHS Safety Thermometer CQUIN both ask providers to measure aspects of VTE prevention. The existing VTE CQUIN rewards providers who risk assess 90% or more of adult inpatients for their risk of developing VTE. Performance in relation to this CQUIN is reported via a UNIFY return. This is a lever to ensure at-risk patients are identified and receive appropriate prophylaxis. The NHS Safety Thermometer on the other hand asks more questions in relation to VTE. These questions are:

- Does the patient have a documented VTE risk assessment?

- If at risk, has the patient started appropriate VTE prophylaxis?
- Is the patient being treated for VTE, what sort of VTE has been diagnosed (pulmonary embolism, deep vein thrombosis, other) and did VTE treatment with appropriate anticoagulation commence before admission to your organisation (old VTE) or after (new VTE).

Thus, the NHS Safety Thermometer data is more detailed than the VTE CQUIN, but crucially the CQUIN only incentivises the collection of data, not the achievement of any specific quality of care threshold. It is therefore entirely appropriate for a provider to be rewarded for achieving the 90% VTE

risk assessment threshold and for appropriate use of the NHS Safety Thermometer.

There is only a small area of overlap between the two schemes (i.e. collection of data about how many patients are risk assessed for VTE) but the incentive payments for achieving the two CQUIN goals are triggered by different thresholds and therefore reflect different quality measures. It is also therefore possible for a provider to achieve the NHS Safety Thermometer CQUIN goal but miss the VTE CQUIN goal and vice versa.

REFERENCES

1. Vincent C. *Is health care getting safer?* BMJ 2008;337:a2426.

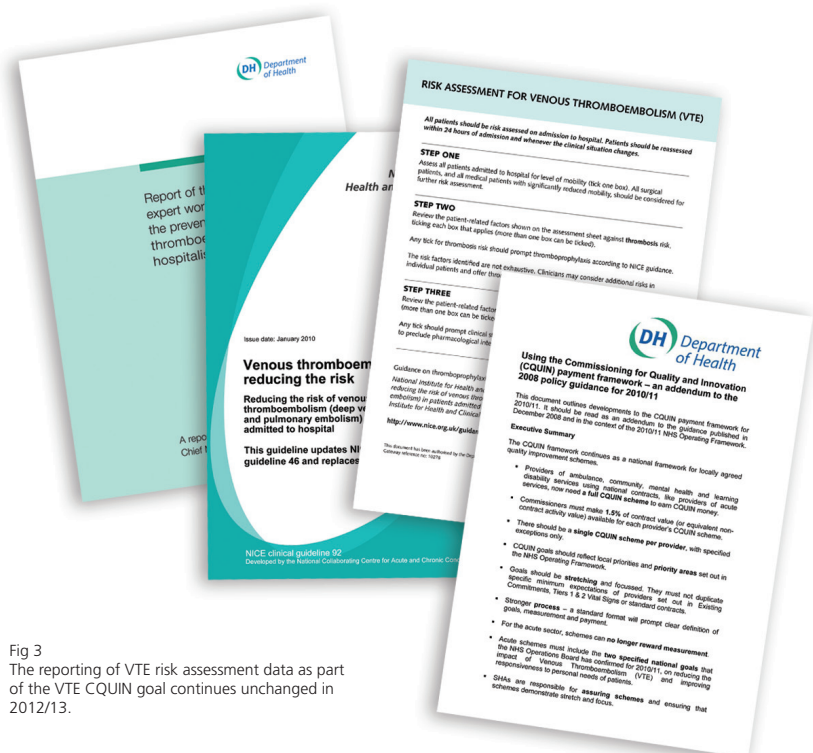


Fig 3 The reporting of VTE risk assessment data as part of the VTE CQUIN goal continues unchanged in 2012/13.

Essential steps to achieving the NHS Safety Thermometer CQUIN

The intention is for all NHS-funded providers, across community, mental health, acute and residential and nursing care, including NHS-funded independent sector providers, to use the NHS Safety Thermometer, apart from where exceptions apply, as detailed in this guidance. This CQUIN will require monthly surveying on one day of all appropriate patients to collect data on four outcomes (pressure ulcers, falls, urinary tract infection in patients with a catheter and new VTE). A completed NHS Safety Thermometer survey for all relevant patients must be included for each month in the relevant quarter's submission to trigger payment.

Participation in data collection using the NHS Safety Thermometer is an important preparatory step for NHS-funded provider organisations in reducing harm. The NHS Safety Thermometer CQUIN requires monthly surveying of all appropriate patients. Data will be collated locally using the NHS Safety Thermometer tool on a single day per month.

Understanding the denominator and numerator

Organisations must employ the correct denominator and numerator for the NHS Safety Thermometer CQUIN scheme. This can only be achieved through a full and thorough understanding of the patients to be included and excluded from the NHS Safety Thermometer data collection. A complete description of inclusions and exclusions are provided on page 28. Generally, the exclusions include day cases, outpatients, and A&E attendances.

The basis for payment for the NHS Safety Thermometer CQUIN is the number of monthly data collections on one day provided within a financial quarter. However, providers will be expected to provide their commissioners with the proportion of eligible patients included in the NHS Safety Thermometer data collection for each month in each

quarter in order to assure progress towards the goals of surveying 100% of patients. In order to provide this calculation, providers should calculate the numerator and denominator for the proportion of eligible patients surveyed on a monthly basis.

For one month the denominator is the total number of eligible patients present in the organisation (or on the caseload for that day in a district nursing context) on the day of the survey. For the quarter and to trigger payment, the denominator is the total number of eligible patients present in the organisation (or on the caseload for that day in a district nursing context) over the three survey dates.

The numerator is the total number of patients surveyed over the three survey dates.

Ensuring all appropriate patients are surveyed

Commissioners will wish to satisfy themselves of the appropriate completion and submission of the data collection for each provider for each month in a quarter in order to justify CQUIN payment. Providers need to be able to exercise clinical discretion in applying the inclusion and exclusion

criteria for use of the measurement tool, and should not be expected to account for each exclusion to qualify for their CQUIN payment, but provide just a high level number of the eligible patients (i.e. the denominator). Practical application of the inclusions and exclusions in the identification of the number of patients eligible for inclusion in the NHS Safety Thermometer, which can in turn be used as the denominator for the CQUIN, can be seen as worked examples on page 10. These examples show how to define the number of eligible beds in the case of hospitals, and the eligible patient cohort in the case of a community nursing team, and offer examples of how to record exclusions and omissions from the calculation.

It will be for providers and commissioners together to determine whether the monthly returns for a particular provider represent a patient survey sample size that is consistent with the expected activity of that particular provider and cross-reference this with the number of sampled patients for each monthly survey as reported via the data published by the NHS Information Centre. They should allow for some exclusion of patients based on the types of activities the provider undertakes as described by the provider.

Understanding prevalence and incidence

It is important to understand the difference between prevalence and incidence and how the NHS Safety Thermometer measures these for different harms.

Prevalence is defined as the total number of cases of a particular harm in the surveyed population at a specific time. For example, the prevalence of patients with pressure ulcers is the proportion of patients with a pressure ulcer on the day of the survey, no matter when or where the pressure ulcer occurred. You may also have the prevalence of a particular category of pressure ulcer, so the prevalence of category II pressure ulcers would be the total proportion of patients with a category II pressure ulcer in the surveyed population on one day. In the context of the NHS Safety Thermometer, prevalence is usually measured where ALL occurrences of a particular harm are counted; for example ALL pressure ulcers, ALL cases of new VTE or ALL urinary tract infections.

Incidence is different to prevalence because it focuses on the occurrence of cases of a particular harm within a particular population or area. In the case of pressure ulcers, we would be interested in the number of pressure ulcers occurring within a particular organisation; this could be said to be the pressure ulcer incidence for that organisation. In the context of the NHS Safety Thermometer, incidence for an organisation is usually measured where NEW occurrences of a particular harm are counted; for example NEW pressure ulcers, NEW cases of VTE or NEW urinary tract infections.

There will be no routine national validation of patient survey sample size. There are worked examples of how to assess if all appropriate patients have been surveyed on page 10.

Understanding the point estimate method

The national CQUIN payment is triggered on the basis of data being collected for all eligible patients on one day for each month in the relevant quarter.

The NHS Safety Thermometer is a point estimate survey instrument. It is a measure of the proportion of people in a population who have one or more of the four harms at a particular time and date. It is like a snap shot of the harm in time, a 'temperature check' on the system. The definitions used mean that you will be able to collect some period prevalence data for particular harms, for example if the patient has

fallen in the last three days or has had a urinary catheter and has been treated clinically for a urinary infection in the last three days. This is different from a range of other data sources on patient harm and some patients with harms will not be included within the NHS Safety Thermometer data collection, for example if their harm is identified and treated between survey dates. This does not mean that the data are not useful; it is designed to act as a 'temperature check' and provide data to look for improvement over time. It should be viewed alongside other information to provide a rich and varied picture of harm prevalence and incidence.

Point estimate methods are different from incident reporting. Many readers will be familiar with incident reporting, the mechanism through which information on harms is reported within organisations and to national bodies such as NRLS.

This is different from point estimate reporting in two important ways. Firstly, incident reporting will report on incidents occurring within an organisation; it will not capture harm that has occurred outside of the organisation. For example, the point estimate methodology employed in the NHS Safety Thermometer requires the collection of 'old' pressure ulcers, whilst an incident report will report on incidence of pressure ulcers occurring within the organisation. Secondly, incident reporting should capture all harm incidents occurring in an organisation, irrespective of when they occurred; point estimate methods only look at a specific point in time. Data derived from each method is likely to differ, therefore, it is best to use both methods and interpret the resulting data together.

Avoidable and unavoidable harm

Avoidability of harm is not recorded in the NHS Safety Thermometer data collection. Whether a harm is considered avoidable or not is usually defined after a comprehensive root cause analysis which is a process not in keeping with the quick and simple principles of the NHS Safety Thermometer as a point estimate tool. Organisations will wish to use their risk assessment and root cause analysis data to assess levels of avoidability, and the data from the NHS Safety Thermometer can be used alongside this to help provide a rich and complete picture of harm in the organisation.

Managing unintended consequence of the point estimate method

It is well documented that good measurement is key to driving improvement, however the implementation of measurement instruments can often leave

Hospital-based leader	Community Healthcare Services Leader (District Nursing)
<input type="checkbox"/> Denominator (define the number of eligible beds)	<input type="checkbox"/> Assemble the data for numbers of patient contacts undertaken on the day of the survey
<input type="checkbox"/> Obtain a list of all wards, departments and directorates; identify locations for inpatient care; create a list of locations (including specialties and total beds)	<input type="checkbox"/> Assemble the data for numbers of patient contacts undertaken on the day of the survey
<input type="checkbox"/> Review the exclusions to determine if any apply, e.g. well babies; renal dialysis; outpatients; A&E; day cases	<input type="checkbox"/> Review the exclusions to determine if any apply, e.g. health visiting; outpatients; school nursing
<input type="checkbox"/> Deduct the exclusions to calculate the total eligible beds ¹	<input type="checkbox"/> Deduct the exclusions to calculate the total eligible contacts ¹
<input type="checkbox"/> Assemble data for the number of patients surveyed	<input type="checkbox"/> Assemble data for the number of patients surveyed
<input type="checkbox"/> Document the reasons for omissions	<input type="checkbox"/> Document the reasons for omissions

Example calculations							
First Calculation (eligible beds on day of survey):				First Calculation (eligible contacts on day of survey):			
Occupied beds	Bed exclusions	Reasons for exclusion	Total eligible beds	Contacts	Contact exclusions	Reasons for exclusion	Total eligible contacts
100	25	10 day cases, 5 renal dialysis, 10 neonates	75	100	15	15 health visiting	85
Second Calculation (% eligible patients surveyed)				Second Calculation (% eligible patients surveyed)			
Beds surveyed	Beds omitted	Reasons for omission	% completeness	Contacts surveyed	Contacts omitted	Reasons for omission	% completeness
65	10	8 empty beds, 2 patients in other location	$75 - 10 = 65$ $65/65 = 100\%$	83	2	2 patients with no documentation, unable to communicate	$85 - 2 = 83$ $83/83 = 100\%$

¹ The total number of eligible beds or eligible contacts is to be calculated each time the survey is conducted.

organisations, or even individuals, feeling exposed and vulnerable to criticism, particularly where data collected is used for punitive purposes or those collecting the data do not see and understand the results. In such cases there may be a temptation to artificially change practice to avoid harms being captured. For example, a patient may be classified incorrectly as being part of an excluded cohort, admission of a patient with a particular harm may be delayed or a patient may be classified as not present so they are not included in the NHS Safety Thermometer data collection. In the community the NHS Safety Thermometer data may be collected purposefully on the day with the least appointments.

To identify where these issues may be arising, compare the NHS Safety Thermometer data to other data sources to help identify any major discrepancies. Speak to staff involved with the NHS Safety Thermometer to ensure that their understanding of the purpose of the data collection is clear.

While the examples above may be extreme, to help avoid such unintended consequences, it is critical that all participating staff are made aware that the data from the NHS Safety Thermometer is intended for use in improvement programmes and projects. The data will be used to identify areas for improvement, evidence best practice and assess the impact of teams' improvement action and interventions. The data should not be used for punitive purposes and to artificially influence practice to avoid inclusion of patients with harm is counterproductive to the aims of the NHS Safety Thermometer and in extreme cases may actually endanger patients and harm organisations.

The 'harm free' care composite measure

One of the key, and currently unique, measures included in the NHS Safety Thermometer is the 'harm free' care composite measure. This measure is not collected directly but instead derived from the data collected on the other four harms. The 'harm free' care composite measure is thus defined as the proportion of patients without a

pressure ulcer (ANY origin, category II-IV), harm from a fall in care in the last 72 hours, a urinary tract infection (in patients with a urethral urinary catheter) or new VTE treatment.

The inclusion of the 'harm free' care composite measure has several major advantages in driving forward improvement in patient care:

- We can re-frame key patient safety terminology from a negative 'harming patients' to a positive focus on 'harm-free patients' or 'harm free' care, providing front-line staff with an aspiration to work towards - 'harm free' care

- We can improve our understanding of the overall burden of these harms together across the whole health economy, covering acute, community and home care settings
- We can view harm from the patient, rather than the 'harm' view point, and have a measure that helps us move away from a siloed approach to reducing harms

The diagram below illustrates how the 'Harm Free' Care composite measure moves away from the traditional harm based model of measurement to a more patient focussed approach, providing a powerful and meaningful measure for front line teams.

↓	Pressure ulcer ↓	Fall (with harm) ↓	Urine infection (catheters) ↓	VTE ↓
Patient 1	✗	✓	✓	✓
Patient 2	✗	✗	✓	✓
Patient 3	✓	✓	✓	✓
Patient 4	✓	✓	✓	✗
Patient 5	✓	✓	✗	✓
Total	3/5	4/5	4/5	4/5

Fig 4 Traditionally, healthcare systems count the number of adverse events. In the example above, two of five patients had a pressure ulcer (40%). In the example below, counting across at the level of the individual patient shows how many patients had none of the 4 harms i.e. were 'harm free' from these conditions.

→	Pressure ulcer	Fall (with harm)	Urine infection (catheters)	VTE	'Harm free' care
Patient 1 →	✗	✓	✓	✓	No
Patient 2 →	✗	✗	✓	✓	No
Patient 3 →	✓	✓	✓	✓	Yes
Patient 4 →	✓	✓	✓	✗	No
Patient 5 →	✓	✓	✗	✓	No
Total →					1/5

Undertaking the survey, ensuring reliable data collection and validation

It is recommended that data collection is integrated into the daily work flow. Data will come from two primary sources: a physical examination of the patient (including a conversation with them or their carer) and nursing / medical records (including pharmacy records). Data collected in the NHS Safety Thermometer is submitted to the NHS Information Centre directly from the Safety Thermometer Tool via a “submit” button.

Identifying your organisation leads

It is important to start by identifying your organisation leads. One clinical lead and one designated data support lead, preferably a clinical analyst who will link in to your finance and performance team, is the recommended approach. The clinical lead is responsible for engaging staff, encouraging data collection as part of the daily work flow at the point of care, and will act as the primary contact for the NHS Safety Thermometer in the organisation.

The clinical lead should liaise with ward and team managers and senior nurses to test the NHS Safety Thermometer and think about how they can best incorporate data collection into the daily work flow.

The data lead or clinical analyst is responsible for collating and merging the organisation’s data each month and linking with relevant teams (e.g. the finance and performance team) to ensure accurate and timely reporting. The analyst should validate the data and submit to the NHS Information Centre on a set date each month. In addition, the analyst should provide the relevant information to show that 100% of appropriate patients have been surveyed for commissioners.

Submission of the Safety Thermometer data to the NHS Information Centre requires a “Registered Safety Thermometer Coordinator” to be

identified locally and registered formally with the NHS Information Centre for data submissions to be properly identified and accepted. Choose one of the Clinical Lead, Clinical Analyst or Data Analyst within your organisation to be the registered coordinator, and make sure you have a deputy coordinator to cope with submissions during annual leave or other absence.

Collecting and submitting the data

The data should be collected by a nurse at the point of care. The key to getting this right is to integrate data collection into the daily work flow, for example by completing the NHS Safety Thermometer at handover, in a safety huddle, or during one of your intentional/comfort/hourly rounds. Primarily, data will come from two primary sources: a physical examination of the patient (including a conversation with them or their carer) and nursing / medical records (including pharmacy records).

If computers are not available, it is possible to print the survey off and carry it with you. A version of the tool designed for printing is available from the NHS Information Centre. If you have no administrative support, consider asking a ward clerk to transfer the data to the electronic tool ready for merging and submission by the data lead.

Particular days of the month on which to conduct the survey have been suggested to providers; it is not obligatory to

use these, but the survey should be conducted on a single day. Data resulting from the survey should be entered into the Safety Thermometer and submitted to the NHS Information Centre by a designated cut-off date each month; a timetable of submission dates can be found at www.ic.nhs.uk/services/nhs-safetythermometer

To limit the possibility of double counting patient harms, for example if a patient moves between settings, wards or caseloads, the organisation should aim to complete the survey within a specific time period, for example on one morning between 9 and 12. Organisations should also consider linking with other local providers to agree the date and time window in which the survey will be performed to limit the potential for individuals to be double counted.

We are gathering opinions on whether or not we should insist on all providers collecting data on the same day. There are also various local arrangements in place that you should be aware of where particular regions have agreed to collect data on the same day.

Ensuring reliable data collection and validation

Ensuring reliable data collection is a key issue that must be addressed in every Trust. Data should be collected by a nurse at the point of care. Submission of the data to the organisational data

Data validation

Experience suggests that an important validation exercise is the referral of the organisation's merged data to key staff such as infection control leads or tissue viability nurses who will be able to provide a sense check of whether the prevalence reported is in line with internal measurements.

leads should be the responsibility of the ward or team manager. A team manager responsible for staff who are primarily based out in community settings may have to collate an NHS Safety Thermometer file from each staff member and merge them prior to submission to organisational leads.

There may be a temptation to get senior staff and content experts on each harm to collect this data but this is not a long-term solution. The NHS Safety Thermometer should be supported locally with education around each of the harms to ensure that front line nurses are able to collect this information reliably. Resources, such as e-learning tools, are available on the 'harm free' care website: www.harmfreecare.org

Data validation at a local and organisational level is an extremely

important step. We should do everything possible to ensure the validity of the data. Once data are entered on one ward or caseload it should be validated and then validated again by the data lead once all data for the organisation has been merged and before it is sent to the NHS Information Centre. Key checks will be around ensuring that all relevant patients have been surveyed and that all data has been merged and that ward names are entered correctly each month. Where errors are found, the data lead will need to liaise with the relevant wards or teams to ensure that data is corrected or duplicates deleted carefully.

Data checklist

- Consistent use of names
- Consistent capitalisation
- All wards / teams included
- Correct date
- Correct patient numbers surveyed
- Results make sense

Submitting the data

Data collected in the NHS Safety Thermometer is submitted by Registered Safety Thermometer Coordinators using the 'submit' function in the tool.

This sends the survey data to the NHS Information Centre via email. Once the data has been received by the NHS Information Centre and the submitter details have been authenticated against the list of Registered Safety Thermometer Coordinators, the submitter will be sent a confirmation e-mail acknowledging receipt. If you do not receive an email receipt, your data has not been correctly submitted. In most cases, incorrect submission is the result of non-registered people sending data to the NHS Information Centre. Look at the Safety Thermometer User Guide for details of the submission process, or contact enquiries@ic.nhs.uk if you are unsure.

The NHS Information Centre

The NHS Information Centre is responsible for the collation and publication of the data submitted via the NHS Safety Thermometer. As the owner of the NHS Safety Thermometer tool it is also responsible for the technical user support for the tool and for updating the tool regularly to deal with any identified issues and updates to organisation. The NHS Information Centre will also be able to give you the contact for SHA and Quality Observatory support in your region. For more details of online resources, see page 22.

NHS Safety Thermometer case studies and contacts

Birmingham Community Health Care NHS Trust worked with the QIPP Safe Care team to test the NHS Safety Thermometer throughout its pilot. They collect data in their community hospitals, intermediate care units, district nursing case loads and learning disability providers. They understand the importance of using the data and triangulating it with other data sources. Contact Julie Jones, patient Safety Lead, with any questions about Birmingham Community Health Care NHS Trusts approach to implementing the tool Julie.j.jones@bhamcommunity.nhs.uk (01214667061)

Derbyshire Community Health Services NHS Trust (DCHS) introduced the NHS Thermometer systematically into 12 Community Hospitals during 2011 and by July 2011 all inpatient wards and one community based team were undertaking

the survey. DCHS is set to implement the Thermometer into all District Nurse Teams by April 2012. To achieve this, short training sessions have been conducted across a large geographical area. This will be followed up by 'Safety Express' sessions to set the NHS Safety Thermometer into the wider context. Collecting the data via the NHS Safety Thermometer has assisted (DCHS) in developing Key Performance Indicators for the four harms. The NHS Safety Thermometer is currently being integrated into (DCHS) Business Intelligence System and will contribute to the overall reporting structure, with the emphasis being on the teams owning their data, analyzing and taking action where clear action is required to improve patient outcome. Karen Sherlock karen.sherlock@dchs.nhs.uk (01629 812525) or Adam Short adam.short@dchs.nhs.uk (01773 525099)

Ealing, Harrow & Brent Community Services collected data consistently over the pilot and have successfully embedded

the NHS Safety Thermometer in to district nursing roles in the community. If you want to discuss how to do this with someone with experience contact Jennifer Roye, Assistant Director of Clinical Governance, Jennifer.roye@eht.nhs.uk (0203 313 9641)

East Lancashire Hospitals Trust were one of the first organisations to use the NHS Safety Thermometer on 100% of patients each month. They have a fantastic approach to measuring harm and understand the utility in front line nurses collecting data at the point of care. The senior nursing team have a great relationship with the analytics team which has helped them understand and make the most of the data collected. For more information contact John Goodenough, Deputy Director of Nursing, john.goodenough@elht.nhs.uk (01254 733698) or Peter Weller - Associate Director Patient Safety & Governance, peter.weller@elht.nhs.uk (01254 263555)

NHS Safety Thermometer case studies and contacts contd.

At **Kings College Hospital NHS Foundation Trust** data is collected by a senior nurse with engagement of the ward staff. Currently data is collected in 8 areas. The approach taken has enabled a consistent form of data collection and reduced ambiguity relating to VTE assessment and appropriate prophylactic treatment. It has also led to a number of initiatives being introduced across the trust based on the data and assisted in measurement of effectiveness of interventions. For more information contact Liam Edwards, senior nurse Preceptorship and Energise for Excellence, (0203 299 1619) liamedwards@nhs.net

At **Lancashire Teaching Hospitals NHS Foundation Trust** the flag and tag options are being used innovatively in each ward to engage staff from different specialties with collecting data on the four harms. The flag and tag options allow you to collect extra local information additional to the information already collected on pressure ulcers, falls, urine infection (in patients with a catheter) and VTE. Staff have found that collecting the data on one day each month has highlighted areas for improvement and raised awareness of the harms. For more information on how Lancashire Teaching Hospitals NHS Foundation Trust are using the NHS Safety Thermometer contact Paula Nuttall, clinical risk coordinator, paula.nuttall@lthtr.nhs.uk (01772 522725)

At the **Luton & Dunstable University Hospital** senior ward staff understand the importance of collecting this data and have recognised its relevance to other initiatives used to drive improvements to patient care and experience. The data is collected at the point of care. To support the role out to all wards a Senior Nurse was seconded for 2 days a week to ensure staff understood the collection guidelines and were familiar with the tool. It has been very well received by all. For further information contact matt.borg@ldh.nhs.uk (0845 127 0 127) or marion.collect@ldh.nhs.uk (07980941612)

Milton Keynes Community Health Services started collecting the NHS Patient Safety Thermometer data in February 2012 on a small group of services and rolled out fully in March 2012 to the Intermediate care inpatient unit, the older people's mental health unit and across

district nursing services. Data is collected on a clear, simple paper tool and returned to a central point where returns are checked for completeness and entered onto the NHS Safety Thermometer. This approach ensures that clinical team's time is not redirected away from front line care. Information from the tool will be used in conjunction with a range of other existing clinical information to continue to focus on and improve clinical outcomes and experience for individuals using our services. For further information contact sheila.begley@mkchs.nhs.uk (01908 243933) Deputy Director of Nursing and Adult Health Services.

North East London Community Services are one of our most experienced community organisations with using the NHS Safety Thermometer. Contact Beth Maryon, Practice Development Manger, Beth.Maryon@nelft.nhs.uk (01708 465781) if you would like tips on implementing the tool and engaging staff in the community.

Nottingham University Hospitals found a way of engaging with the medical school students by asking them to use the NHS Safety Thermometer, via Open School Nottingham (an IHI Patient Safety chapter). A team of students were recruited to undertake the monthly data collection. They were provided with an opportunity to shadow the ward nurses to understand how the data collection and tool was used. The relationship with the safety chapter is reciprocal and there is also a patient safety evening for students with a talk from the Deputy Medical Director and consultants. If you would like to know more about how to approach working with safety chapters contact Wayne Robson, Patient Safety Programme Lead, wayne.robson@nuh.nhs.uk (0115 969 1169)

Peterborough and Stamford Hospitals took part in the pilot phase of the NHS Safety Thermometer with members of the Practice Development Team undertaking the surveys on four wards each quarter in 2011. Gillian Clark explains: the small amount of data entered meant we were unable to get data useful to change practice and it is only since expanding the NHS Safety Thermometer from January this year to 100% of relevant in patients that we realise just how beneficial the NHS Safety Thermometer will be for our patients. The Trust held a workshop for all Ward Managers,

senior nurses, clinicians, audit staff and contract managers to discuss the theory that supported NHS Safety Thermometer and how it could be implemented in practice. That our Chief Nurse led the workshop assured board level support and a good attendance. The senior nurse on each ward collects the information at the bedside on the given day supported by the Practice Development Teams and Military colleagues. The first in house report has been produced and clearly shows where the improvements are needed both from the overall percentage of patients harmed and by individual harms such as falls, pressure ulcers. Each ward receives the report and can see their variance with Trust averages and other wards. Action plans to ensure 95% 'harm free' care (or more) is delivered are now being developed. Workshops are held each month to allow more staff to understand NHS Safety Thermometer and be able to complete the survey. Our learning has been to check the data as it is received from each ward. In the early days there was some confusion, particularly around the VTE questions, which was not noticed until the data had been submitted electronically and therefore affected the overall harm results. We have assurance that voluntary reporting system is being used as NHS Safety Thermometer matches our current data collection. Undertaking the NHS Safety Thermometer for 100% of patients for three months has been a real achievement for the Nursing and Midwifery staff at the Trust. Gillian's contact details are: gillian.clark@pbb-tr.nhs.uk (01733 678498)

The Rotherham NHS Foundation Trust (NHS QUEST member) has found an innovative and effective way of collecting the data. They collect the data on the paper form at the point of care via their 'Community to Board' assessment process. All wards every 2nd Tuesday of the month complete the pre-formatted form that includes NHS Safety thermometer and also other quality indicators. The aim is, from April, for all community staff to complete the process for every patient seen by community teams on the same day. The data collection tool is then scanned into an automatic download system. The reports are then formulated via a SQL server programme to allow 'same-day' real time feedback to staff. The data is available in a drill down format with dial indicators for Trust wide progress. All staff have the ability to drill down to raw data levels and compare their progress with each

other and against Trust wide averages. The data is the upload directly to the NHS Safety Thermometer central database at the Information Centre. The process really focuses nursing staff on their key safety issues and identifies areas for action almost 'real-time'. If you would like to find out more about this contact Patricia Bain, Director of Quality, patricia.bain@rothgen.nhs.uk (01709 307 389)

At **Salford Royal NHS Foundation Trust** (NHS QUEST member) data is collected by nurses at the point of care. The survey is carried out at the same time as the senior nurse walk round which gives an added element of senior leadership support to the data collection. Nurses have said that time taken to collect the data is value added and an important part of patient care. Contact John Bellerby, quality improvement lead, John.Bellerby@srft.nhs.uk (0161 206 2248) if you would like to learn more about Salford Royal's approach to using the NHS Safety Thermometer.

South Essex Partnership Trust implemented the NHS Safety Thermometer during the pilot across community services including community district nursing, community hospitals and mental health services for elderly care. The majority of these teams submitted via use of the NHS Safety Thermometer excel platform, but a few teams used the paper system. The trust has a brilliant proactive approach to collecting the data and understands why this is important. They have been successful in engaging community staff and have worked closely with their audit department to ensure that the data is valid, understood and useful for the organisation. If you want to talk to a team with a proactive approach to using the NHS Safety Thermometer in the community contact Jodie.O'regan@sept.nhs.uk (0300 123 0808) or Sarah Browne sarah.browne@sept.nhs.uk (0300 123 0808)

Ward managers at **South Tees Hospital NHS Foundation Trust** (NHS QUEST member) have all found different ways of making the NHS Safety Thermometer data collection part of the daily work flow, staff development and patient care. Some wards collect data as part of an intentional round but others use the tool for education and development and spend time with nurses as they collect the data, discussing the care they are giving and the four harms. They reached 95% 'harm free' care on pilot wards. They present

their data regularly to their board and have started work to understand different measurement systems and triangulate their data. Contact David Charlesworth, senior practice development nurse, to discuss the approach South Tees have taken in more detail david.charlesworth@stees.nhs.uk (01642 850850 Ext 53082)

Suffolk Community Healthcare have now implemented the NHS Safety Thermometer within their 4 in-patient community hospitals & over 30 community nursing teams following piloting since November. Despite some initial IT challenges staff are now engaging very positively with the audit enabling collection of data on 100% of patients for every month since it was implemented. Ongoing work is being carried out to roll it out of the following year and triangulate it with other audit data. Data collection was achieved most effectively when it was collected by frontline nursing staff and then entered and submitted by IT experienced administrative staff. Training of staff continues to ensure continued timely and accurate data collection, input and submission. Contact Sarah Miller: sarah.smiller@suffolkpct.nhs.uk (01449 776617/ 07940 443973)

The team at **United Lincolnshire Hospitals NHS Trust** incorporated the data from the NHS Safety Thermometer with a number of reliability measures to ensure quality of care is reliable. It encouraged staff to consider: Are we carrying out risk assessments for all patients? Are we re-assessing where needed? Are we using that risk assessment to develop a good plan of care? And are we implementing that plan for each patient? ULH also ensured that the data collected using the NHS Safety Thermometer was seen and widely understood as data for improvement. Every month, on every ward, the data generated by the NHS Safety Thermometer over time is pinned on a graphical display, this includes both the ward data and also the average data for their site so they can check on their monthly improvements and see how their colleagues are getting on too. If you would like to find out more contact Dr Stephen Cross, Patient Safety Manager, Stephen.Cross@ULH.nhs.uk (01522 573031)

University College London Hospitals started for the first time with a 100% survey on one day using the NHS Safety Thermometer and have been continuing

this model every month since. As staff become familiar with the collection tool this has reduced the time required for data collection leaving more time to provide feedback of results to staff in the clinical areas. The easy merging function allows their data to be viewed alongside data from their partner organisations and comparisons to the national averages. If you want to know more about the approach UCLH is taking please contact Duncan Burton, deputy chief nurse, duncan.burton@uclh.nhs.uk (020 3447 9084)

West Middlesex University Hospital NHS Trust are another organisation who have been collecting data on 100% of patients for some time. When wards were asked to find the best way of incorporating data collection into the daily work flow, surgical wards decided to collect the data at handover. This was found to be an effective way to collect data and was spread across the trust. West Middlesex have also been committed to working together with their community providers to measure and improve services. For more information on collecting data during handover and working with your community teams contact Shan Jones, Director of Quality Improvement shan.jones@wmuh.nhs.uk, (0208 321 2507) or Judith Kay, Locality Manager Hounslow and Richmond Community Healthcare Judith.Kay@hrch.nhs.uk (0203 299 1619)

At **Wrightington, Wigan and Leigh NHS Foundation Trust** (NHS QUEST member) data was initially collected by members of the corporate nursing team (Quality & Safety Matrons etc). This is an approach many organisations may be tempted to take in the beginning, however, they found that in order to use the tool to collect data on one day on 100% of patients it was much more effective to ask nurses to collect data at the point of care. This approach made measurement part of the daily work flow and allowed immediate improvements in patient care to be made. Contact Linda Smyth, linda.smyth@wwl.nhs.uk, (0194 277 3338) to find out how they made the transition.

Webex case studies

To see further webex case studies, go to: <http://www.harmfreecare.org/resources/nhsst-10steps/>

Recommendations for data analysis

The NHS Safety Thermometer includes a wide range of charts which analyse your data. We recommend that you use this functionality to thoroughly explore your data; you do not need to wait for the NHS Information Centre to publish to use the analyser function. As soon as you have entered your data you can analyse it in the Charts and the Outcome report. Print the charts and use them for local discussion or presentations to get the best value out of the analysis functions.

The built in charts in the Safety Thermometer display your data as a weekly or monthly time series. Each chart focuses on a different measure of patient harm, and provides summary and detail views. You can switch between percentage and number views and you can filter by Age Band, Sex, Setting, Service, Flags and Tags. All the charts include a data table which shows the values for each series (see figure 5).

Data Availability

The NHS Information Centre will make available a consolidated file of all of the submitted data on a monthly basis via its website. You may download this data and use it for management purposes in any other analysis tool such

as BusinessObjects, Cognos, QlikView or whatever you may have available locally. A number of organisations have also developed their own 'dashboards' in Microsoft Excel, and these can be helpful in exploring that data using different statistical techniques and representing safety data in the context of other corporate performance information.

Safety Thermometer Dashboards

One good example of a dashboard is that produced by South East Coast Quality Observatory who have used the national consolidated safety thermometer data to present a range of statistical Control Charts and Funnel Plots at an organisational, regional and national level. We intend to supply this

e-learning session

This e-learning session introduces the key principles behind the Model for Improvement, including PDSA cycles and building driver diagrams. It aims to develop the knowledge and understanding of the Model for Improvement within healthcare contexts, with examples of application in clinical care. Further details are available on the harmfreecare website www.harmfreecare.org

dashboard on a quarterly basis to anyone who wishes to use this in their local analysis and improvement programmes.

Control charts

The control charts will show the data for each organisation and the national aggregate data in the background in a p-chart (for proportions or percentages). The control charts are designed to be used as a high-level overview of the data over time, showing the four harms (see figure 6) and providing a visualisation of 'harm free' care (see figure 7).

The control charts can be used to assess the average proportion of patients harmed, and to interpret possible improvement by viewing the data over time. Although not appropriate for use at ward level,

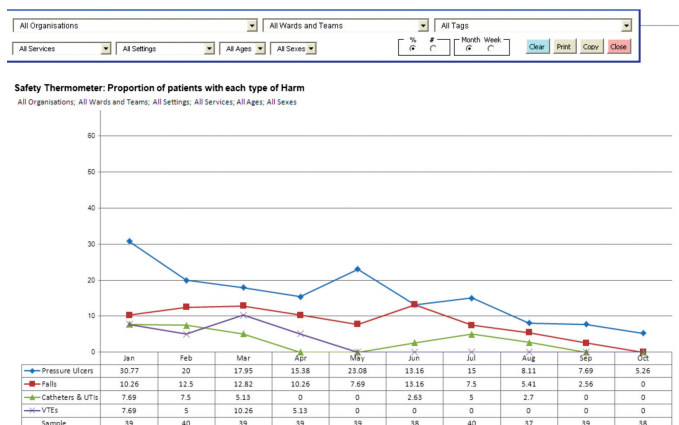


Fig 5 Example of a data table showing values for each series.

NHS Safety Thermometer High Level Dashboard

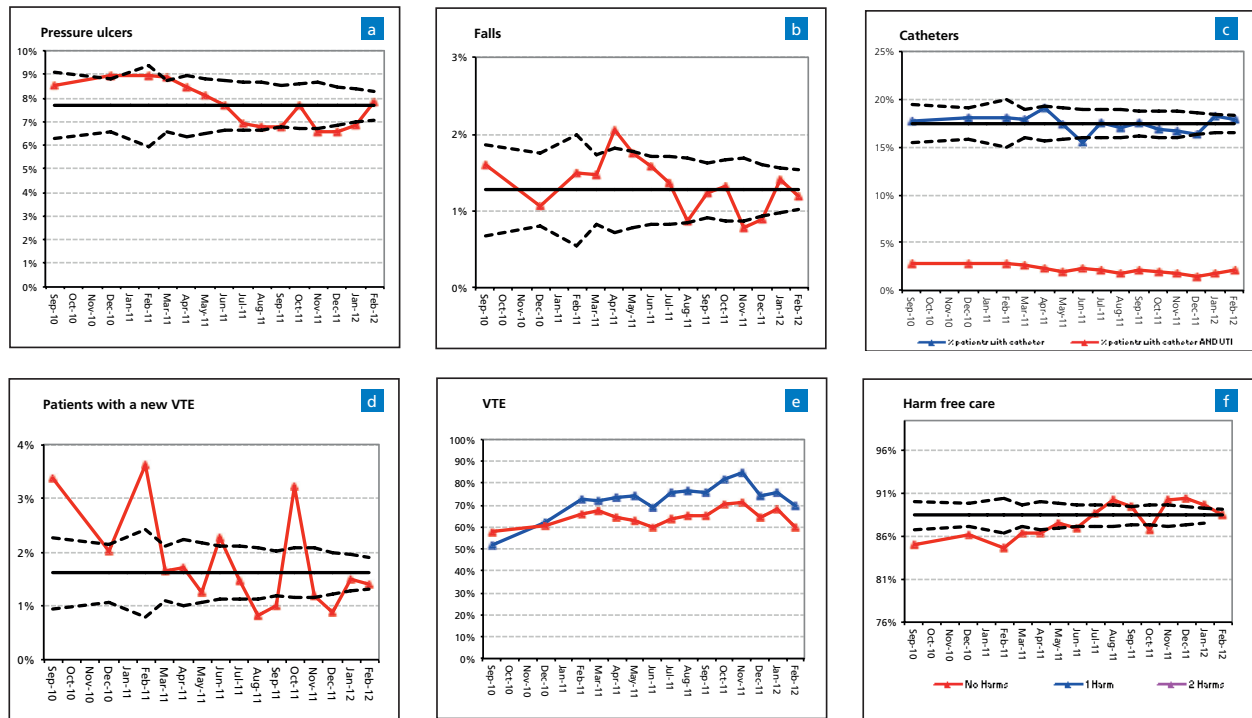


Fig 6 Example of NHS Safety Thermometer control charts results. In these plots, the thick black line in the centre represents the average at the national level. The dotted black lines are the control limits; the red points are local data. The overall percentage of patients experiencing 'harm free' care is automatically plotted within the dashboard (f). Use these dashboards to look for 'special cause' variation, that is, variation outside the experience base. Beyond the harm of new VTE, the control charts also plot the proportion of patients receiving a risk assessment for VTE and those given prophylaxis appropriate to their VTE (e).

the control charts will be useful for organisations and their boards to review their data against the regional and national picture.

Control charts can be used to look for 'special cause' variation, that is, variation outside the normal variation. 'Special cause' variation can be said to have occurred if:

- One (or more) point(s) is outside the control limits (the dotted black line)
- A run of eight or more consecutive points are above or below the centre line (the thick black line which is the average)
- Six points in a row increasing or decreasing
- Two out of three consecutive points are near a control limit (the dotted black line) (see figure 6)

All 'special cause' variations that are flagged require careful scrutiny

to determine their causal link to the improvement intervention. We encourage teams to use these as pointers for discussion and clarification. It is the latest values, however, that are of most interest. If the latest point is outside the control limits then this is worth investigating as opposed to the first point, for example.

Funnel plots

Data will also be provided in the form of funnel plots. Funnel plots enable organisations to see their performance relative to other organisations in the NHS. In the same way as the control charts, funnel plots show control limits, generally in a funnel shape. The funnel plots measure the system at single point in time. If an organisation lies within the funnel, this means it is statistically indistinguishable from the national average (or what ever is chosen for the centre line); points outside the funnel are statistically different and are examples of special cause variation - they are unlikely to be different by chance and

to be systematically different in some way. Organisations or teams that have a corresponding data point outside the funnel are considered to be outliers; they may be positive or negative outliers, depending on which direction is desirable. Data points inside the funnel are not considered to be different to the rest of the data points within the funnel and are thus not outliers. Being an outlier isn't necessarily a bad thing (see the next section for more details).

What to do if your ward/caseload or organisation is an outlier

Firstly, being an outlier can be a cause to celebrate; it could mean you are one of the best performers. Make sure you are fully aware of the indicator you are an outlier on and in which direction you are an outlier.

- Make sure you are clear on the definition of the indicator you are investigating; if not then the data may have been entered incorrectly

Catheterised patients: September 2010 to April 2011

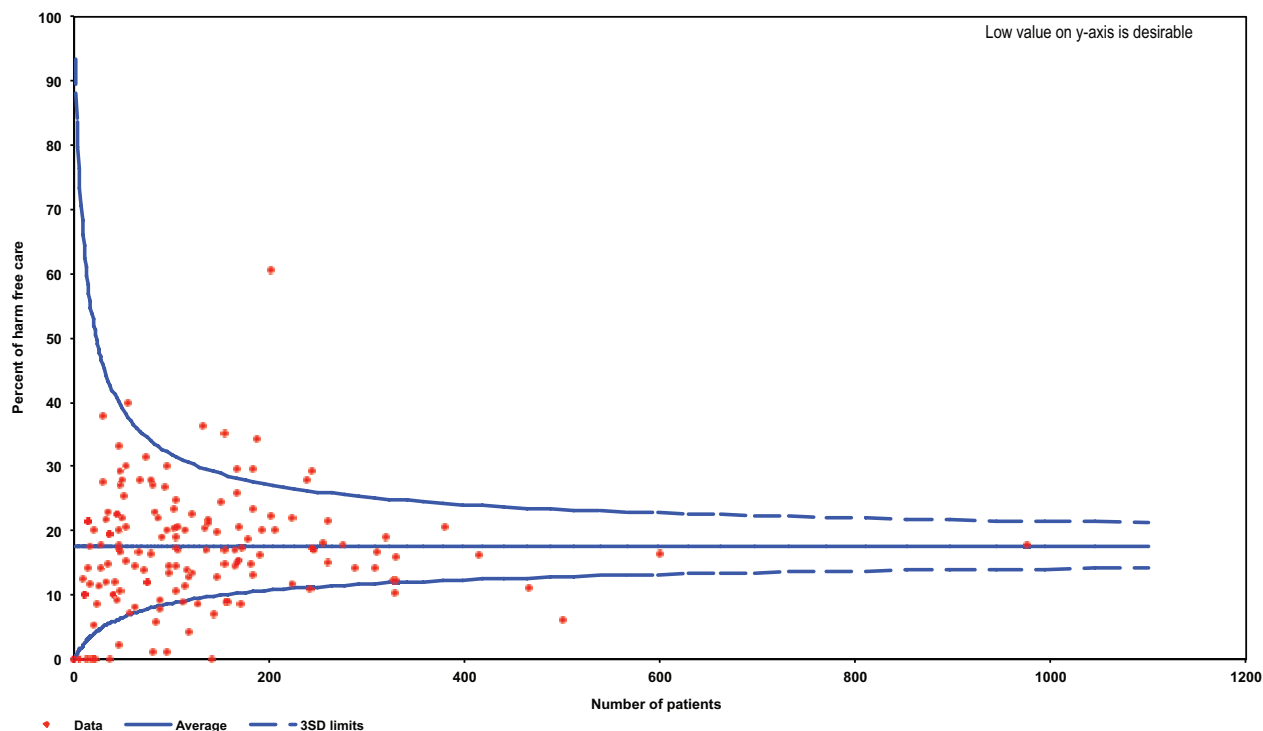


Fig 7

A funnel plot showing the 'harm free' care measure. Funnel plots are a useful way to present observations from different hospitals with different sample sizes. The funnel shaped confidence intervals (blue curves) show that as sample size increases, an observation (in this case 'harm free' care) must be further from the national average (blue centre line) to be considered significantly different. In this example plot, a number of 'harm free' care percentages clearly lie outside the national average and are regarded as 'outliers'.

- Double check your data for errors and the analysis for any obvious problems; do they match up? Sometimes an organisation can be flagged as an outlier due to an artefact of the data rather than any clinical variation
- If you are satisfied with the data and the analysis, review your data with your team and discuss it
- Review your data over time with your team to see if there are any patterns that may link to explanatory factors; for example if the outcome changed in a negative way over the summer you may wish to review staff absence as a possible cause
- If you identify issues, make sure you note them alongside your data or charts to ensure that action is linked to the quantitative evidence
- Make a plan with your team to address the issues identified and put it into practice
- Review your data regularly to see if your changes are having an effect. Next time

a comparative analysis is carried out, see if you are still an outlier

- In any case, whether you are a positive or negative outlier, make sure you share your experience and learning at the next local learning event.

The important thing to remember about being an outlier is to treat it as an opportunity for learning; even if the initial picture is not a positive one, this is an excellent chance to really drive forward improvement.

You may wish to explore your NHS Safety Thermometer data in the context of similar organisations or peer groups, for example other community organisations only, or similar sized or specialist acute trusts. The national analysis which will be provided will include some functionality in this regard, primarily linked to setting and pre-existing peer grouping as used by organisations such as the Care Quality Commission (CQC). If you wish to review your data with a more locally defined peer group, we recommend that you contact your regional Quality Observatory or other local analytical service to help you.

Understanding your data at ward or team level

Your data at an individual ward or team level will have much smaller numbers of surveyed patients than at an organisational or higher level. This means that there will be more variation month to month, which can make analysis and interpretation of data at this level more difficult. At this level extra caution must be taken when interpreting the data and it is crucial that teams review and discuss data together in order to make sure that you get the most out of it. Change and improvement will show over time so teams should use the inbuilt analyser function in the tool to explore and ask questions of the data.

If you want to ensure your data is robust at ward level you could collect data twice a month to increase the number of patients surveyed.

One tool that has been particularly useful to teams talking part in the pilot phase of the NHS Safety Thermometer is the annotation of charts. This simply means printing off charts and writing key actions on them at the corresponding data points;

Case study



Ward managers at South Tees Hospital NHS Foundation Trust (NHS QUEST member) have all found different ways of making the NHS Safety Thermometer data collection part of the daily work flow, staff development and patient care. Some wards collect data as part of a regular nursing round (intentional rounding), but others use the tool for education and development and spend time with nurses as they collect the data, discussing the care they are giving and the four harms. They reached 95% 'harm free' care on

pilot wards. They present their data regularly to their board and have started work to understand different measurement systems and triangulate their data. Contact David Charlesworth, senior practice development nurse, to discuss the approach South Tees have taken in more detail david.charlesworth@stees.nhs.uk (01642 850850Ext 53082)

for example, if you implemented hourly nursing rounds¹ in a particular month, write 'intentional rounding started' against the month in question. This can really help draw out the patterns and trends in the data and give you the evidence that your interventions are working at the front line.

Reconciliation with other data sources

We would encourage all teams to reconcile their data from the NHS Safety Thermometer with other data sources. There are some practical steps that teams can undertake to help them do this:

1. **View data over time.** This has two major advantages, particularly in an improvement context. Firstly it enables the user to see the impact that any change to the system has had. For example, if the introduction of a new type of pressure-relieving mattress has reduced category 3 and 4 pressure damage, by viewing the data over time and annotating the chart to reflect the time period over which the new

mattress was introduced, it can be seen whether any reduction (or increase) in category 3 or 4 pressure ulcers started to occur before or after the change. Secondly, looking at data over time can help to assess the stability of a system and help to identify variation and potentially its cause.

2. **View different information sources side by side.** It can be difficult to compare the different data that teams may have available to give a full picture of patient safety. The easiest way to make sure that any comparisons and collations are made simple is to view the data side by side, ideally on the same sheet of paper or screen. This is very effective not only for analysis but also in ensuring that conclusions from different data sets are presented together for added impact. A dashboard approach can be especially useful for these purposes. An example of different data sources being viewed side by side can be seen on the next page.

3. **Look for similarities and understand the reasons for differences.** Data from different sources can often help tell the same story and in order to do this it is crucial to look for the key similarities between the results in terms of what each says about patient harm. If data sources differ, and in this context we mean differ in terms of conclusions they support, rather than in terms of absolute numbers, then it is crucial to understand why that difference is apparent. This understanding can give insight into the relative strengths and weaknesses of the data sources in question, presuming that the difference is due to an artefact of the data, but could also provide additional information about the harms being measured.

4. **Don't be afraid of uncertainty.** Even the most robust data sources do not always provide a clear cut conclusion, and this can often be exacerbated by using multiple sources if these are perceived to differ. This uncertainty can make users unsure of their position and concerned about using data to underpin their conclusions and subsequent actions. However, there are many methods that can be used to reduce uncertainty, such as using run chart rules and statistical process control. In any case, users should not be afraid of uncertainty and instead use the data to develop discussions with all stakeholders, looking for patterns and/or trends in the data that, if positive, can be used as evidence for improvement.

5. **If in doubt seek out expert advice.** Engage with your local clinical leads, information team and quality observatory to help you understand what your data is telling you. They may be able to help you do something really practical like build a dashboard or just give you some reassurance that your interpretation is sound.

Next steps

More detailed guidance on understanding the data, incorporating the NHS Safety Thermometer in your organisations safety culture and using the data to set improvement goals will be published subsequently.

If you are interested in developing a Safety Thermometer for a specific specialty with different harms please contact Abigail.warren@nhs.net

FOOTNOTES

1. Hourly Nursing Rounds are also known as: rounding, intentional rounding, nurse rounds, hourly rounds, hourly checks, comfort rounds.

Resource Centre



Falls

VTE

**Catheters
and UTIs**

**Pressure
Ulcers**

A new mindset in patient safety improvement

Getting started with the NHS Safety Thermometer

www.ic.nhs.uk

The NHS Thermometer is a local improvement tool for measuring, monitoring and analysing harms and 'harm free' care. Apply by email to the NHS information Centre to receive and begin using the NHS Safety Thermometer.

The Safety Thermometer provides a quick and simple method for surveying patient harms and analysing results so that you can measure and monitor local improvement and 'harm free' care over time. To receive a free copy of the NHS Safety Thermometer tool go to the NHS Information website and follow the link "Accessing the Safety Thermometer" to request the tool (see figure 1).

Once downloaded, you can share copies of the Safety Thermometer across your organisation, however, the Registered Safety Thermometer Coordinator is the only person who can submit your organisation's data to the NHS Information Centre. You should consider setting up a shared organisation email account (or delegate email access) for the Registered Safety Thermometer Coordinator to ensure you can continue to submit data during periods of leave or sickness.

Getting started

To use the NHS Safety Thermometer tool, you will need Microsoft Excel installed on your computer. The NHS Safety Thermometer will work with Excel 97-2003, Excel 2007 and Excel 2010. The easiest way to get started is to click the download link, save the Safety Thermometer on your Desktop, then double click the file on your desktop. You will need to 'Enable Macros' in Excel to run the Safety Thermometer. You can find out how to do this by reading the help section in your particular version of Excel. You must save the Safety Thermometer to your computer to use it. If you are launching Safety Thermometer from

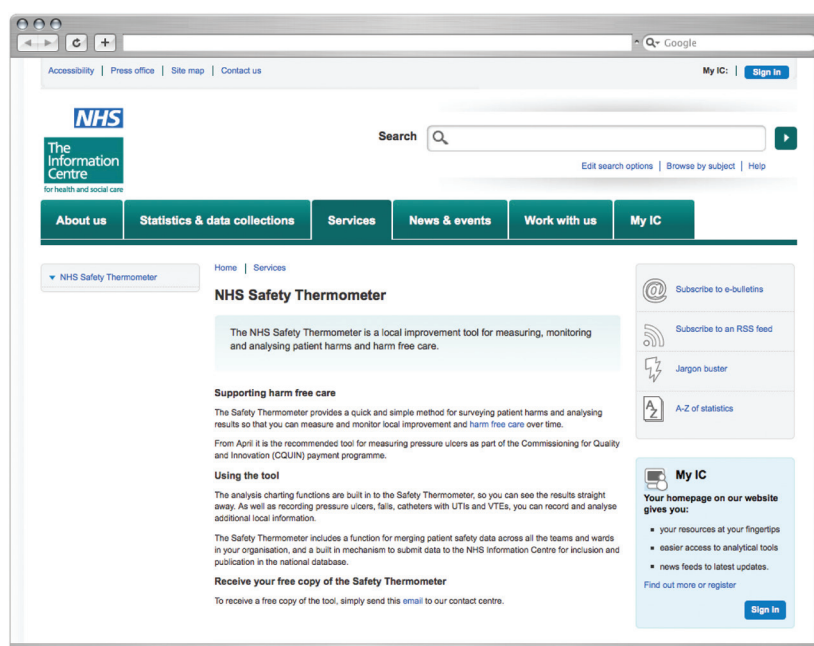


Fig 1
The NHS Information Centre provides an online resource for the NHS Safety Thermometer at www.ic.nhs.uk/services/nhs-safety-thermometer

within Excel, remember that you'll have to close any other Excel workbooks before you start.

Using the NHS Safety Thermometer

The analysis charting functions are built into the Safety Thermometer, so you can see your results straight away. As well as recording the four harms, it is possible for the tool to record and analyse additional local information if required.

Submission timetable

The timetable available on the NHS Information Centre website sets out

the suggested dates for completing the surveys, and importantly, the dates by which users of the NHS Safety Thermometer must submit their data for it to be included in the national collation for that reporting period. Many organisations have put in place procedures to use this data in local service improvement and monitoring arrangements, so you may be asked to supply the same data or subsets of it to local information analysts by your local safety programme coordinator; the Registered Safety Thermometer Coordinator for your organisation should be able to help you with this.

Online resources

www.ic.nhs.uk | www.harmfreecare.org

The NHS Information Centre provides an online resource for the NHS Safety Thermometer at www.ic.nhs.uk/services/nhs-safety-thermometer. The 'harmfree'care.org website provides a wealth of information on the NHS Safety Thermometer, including training and advice on how to introduce the NHS Safety Thermometer into your organisation.

The NHS Information Centre provides step by step guidance on using the NHS Safety Thermometer and a timetable for data submission (www.ic.nhs.uk/services/nhs-safety-thermometer).

User guide and hard-copy forms

Although the NHS Safety Thermometer has built-in help, there is also a detailed User Guide document which is given to each Safety Thermometer Coordinator upon registration, and which can of course be freely distributed within your organisation. Other resources which can be downloaded from the NHS Information Centre website www.ic.nhs.uk/services/nhs-safety-thermometer include a printable survey form in Adobe PDF and Microsoft Excel formats which you can use to record surveys and enter the data into the Safety Thermometer tool later if that is more convenient in your local circumstances.

Training videos

For some practical tips on how we are measuring harm, how to use the NHS Safety Thermometer and how to bridge the gap from collecting data to making change there are a series of easy access WebEx recordings (online combined presentation and audio recordings) you can access. The 'Ten Steps to Success' WebEx recordings aim to support staff in the implementation and practical use of the NHS Safety Thermometer. Each WebEx is between 5 and 20 minutes and covers each of the ten key steps, from understanding the importance of measuring harm and

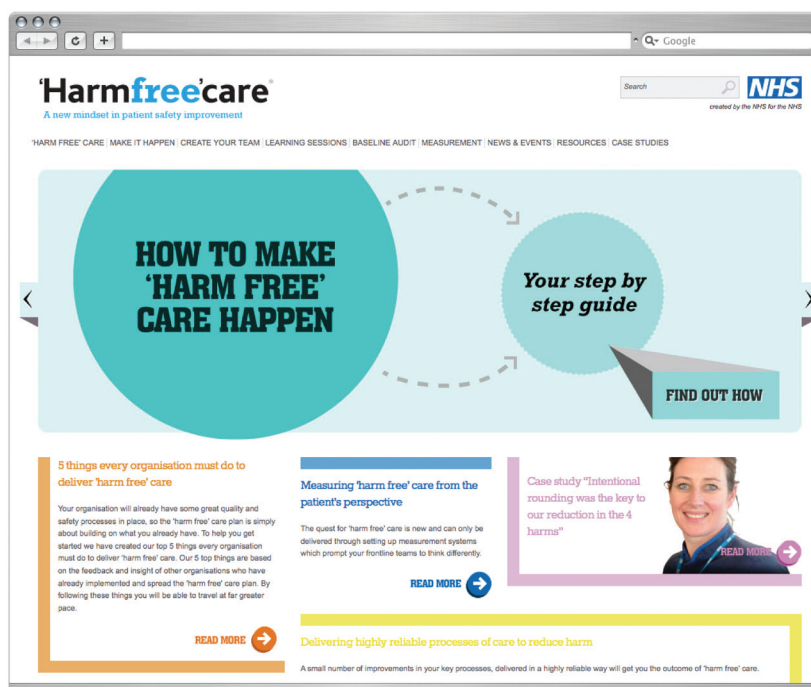


Fig 2
The 'harmfree'care.org website provides training and advice on the NHS Safety Thermometer.

the 'harm free' care concept to how to use the NHS Safety Thermometer and utilise your data for improvement. The WebEx's have been designed as a series, building knowledge and expertise, and can equally be used as stand-alone training materials. To watch 'NHS Safety Thermometer Ten Steps to Success' series of short videos go to: www.harmfreecare.org/resources/nhsst-10steps

Patients are at the heart of everything we do. They inspire us to change. We are committed to improving their

experience of healthcare and protecting them from harm. To watch a short video of harm from a patient's perspective, go to: <http://www.harmfreecare.org/resources/patient-story>

Definitions for the NHS Safety Thermometer

The following definitions have been developed by expert groups and revised throughout 2011 by a steering group of global experts. By definition the operational definitions included in this document are pragmatic, able to be collected across a range of care settings and collectable by a frontline healthcare professional in less than 10 minutes. More sophisticated definitions have been fully reviewed and excluded if they fail to meet these design principles. Organisations may wish to supplement these definitions in local data collection, however, these definitions shape a minimum data set for National use. Throughout 2012-13 the steering group will continue to work with professional bodies to review operational definitions and make minor adjustments.

Pressure ulcers

The NHS Safety Thermometer asks you to record the patient's WORST old pressure ulcer and WORST new pressure ulcer. An 'old' pressure ulcer is defined as being a pressure ulcer that was present when the patient came under your care, or developed within 72 hours of admission to your organisation. A 'new' pressure ulcer is defined as being a pressure ulcer that developed 72 hours or more after the patient was admitted to your organisation.

To collect the data, you may wish to assess or ask the patient about any skin



damage they have experienced as well as consulting their notes or handover documents.

In each of the 'old' and 'new' pressure ulcer columns, record the category of the WORST pressure ulcer the patient has, using the drop down menu provided. The category is based on the European Pressure Ulcer Scale¹:

- Category II - partial thickness skin loss or blister. Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured blister (see image on left).
- Category III - full thickness (fat visible). Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle is not exposed. Some slough may be present. May include undermining and tunnelling.
- Category IV - full thickness loss (bone visible). Full thickness tissue loss with exposed bone, tendon or muscle. Slough or Eschar may be present. Often includes undermining and tunnelling.

If the patient has no pressure ulcer, or a pressure ulcer that is deemed less severe than a category 2, chose the 'None' option from the drop down menu.

This data enables the calculation of the following indicators:

- P1: The proportion of patients with an OLD pressure ulcer (present on admission to your organisation or developed within 72 hours) documented following skin inspection on the day of survey.
- P2: The proportion of patients with a NEW pressure ulcer (NOT present on admission to your organisation or developed within 72 hours) documented following skin inspection on the day of survey.
- P3: The proportion of patients with ANY pressure ulcer (new or old) documented following skin inspection on the day of survey.

Where a patient has an old pressure ulcer which has got worse in your care this would be considered a new pressure ulcer. Each of these measures can be viewed by category (II-IV).

Falls

The Safety Thermometer asks you to record the severity of any fall that the patient has experienced within the previous 72 hours in a care setting (including home if the patient is on a district nursing caseload). A fall is defined as an unplanned or unintentional descent to the floor, with or without injury, regardless of cause (slip, trip, fall from a bed or chair, whether assisted or unassisted). Patients 'found on the floor' should be assumed as having fallen, unless confirmed as an intentional act.



To collect the data, you may wish to assess or ask the patient about the harm resulting from their fall as well as consulting their notes or handover documents.

In the 'Fall' column, record the severity of the fall using the drop down menu provided. The severity of the fall is defined in accordance with NRLS categories:

- No harm - fall occurred but with no harm to the patient
- Low harm - patient required first aid, minor treatment, extra observation or medication.
- Moderate harm - likely to require outpatient treatment, admission to hospital, surgery or a longer stay in hospital
- Severe harm - permanent harm, such as brain damage or disability, was likely to result
- Death - where death was the direct result of the fall

If the patient did not experience a fall, choose the 'No Fall' option from the drop down menu.

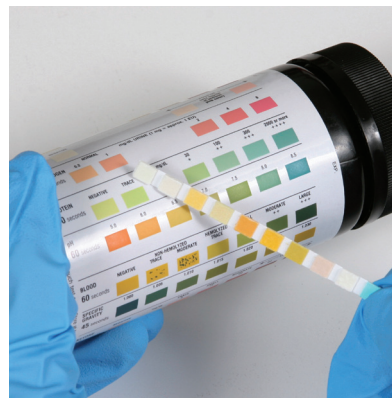
This data enables the calculation of the following indicators:

- F1: The proportion of patients with evidence of a fall in a care setting in the last 72 hours, from discussion with the patient and review of clinical notes reviewed on the day of survey.
- F2: The proportion of patients with evidence of harm from a fall in a care setting in the last 72 hours, from discussion with the patient and review of clinical notes reviewed on the day of survey.

Each of these measures can be viewed by harm severity.

Catheters and urinary tract infections

The NHS Safety Thermometer asks you to record information about any urinary tract infection (UTI) treatment and urinary catheterisation. In the 'UTI treat' column, record whether or not the patient is being treated for a UTI. Treatment for a UTI is based on notes, clinical judgment and patient feedback.



If the patient is being treated for a UTI, the Safety Thermometer asks you to record whether the treatment started before the patient came was admitted to your organisation (old) or after the patient was admitted to your organisation (new). If treatment for or diagnosis of the UTI started before the patient was admitted to your organisation, select 'Old UTI' from

the drop down menu in the 'UTI Old/New' column. If the treatment for the UTI started whilst the patient was under your care, select 'New UTI' in the 'UTI Old/New' column. Otherwise, if the patient is not being treated for or diagnosed with a UTI, select 'No UTI'.

The NHS Safety Thermometer also asks you to record any information about an indwelling urethral urinary catheter. This EXCLUDES supra-pubic catheters and other stents. If the patient has, or has had, an indwelling urethral urinary catheter at any point in the last 72 hours, record the number of days that it has been in place. There are four options for recording this information available on the drop down menu on the survey form; '1-28 days', '28+ days', 'days unknown' and 'no catheter'. If the patient does not have an indwelling urethral urinary catheter and has not had one at any point in the last 72 hours, record 'No catheter'.

To collect the data, you may wish to assess or ask the patient about any UTI symptoms or indwelling urethral catheters as well as consulting their notes or handover documents.

The data recorded can be used to create a range of measures related to catheter usage and urinary tract infection. Two are of particular importance in terms of driving improvement; the proportion of patients with a catheter (see C1 below), and the proportion of patients with a catheter who are also being treated for a UTI (see C2 below). The second of these can be used as a proxy measure for incidence of catheter associated UTIs.

This data enables the calculation of the following indicators:

- C1: The proportion of patients with an indwelling urethral urinary catheter present on the day of survey or removed in the last 72 hours.
- C2: The proportion of patients with an indwelling urethral urinary catheter also receiving treatment for ANY urinary tract infection (on the basis of notes, clinical judgement and patient feedback).

- C3: The proportion of patients with an indwelling urethral urinary catheter also receiving treatment for a NEW urinary tract infection (on the basis of notes, clinical judgement and patient feedback)

C2 and C3 can also be viewed by OLD UTI. The proportion of patients (without catheters) being treated for a UTI can also be viewed.

Venous thromboembolism

VTE risk assessment

The Safety Thermometer asks you to record whether or not a patient has a documented risk assessment for VTE. This information is required for all surveyed patients. There are three options for recording this information on the drop down menu: Yes, No and N/A.

If the patient has a documented risk assessment for VTE then select, 'Yes', if not, select 'No'. If the question is not appropriate for the patient or setting, select 'N/A'.

This data enables the calculation of the following indicator: V1: The proportion of patients with a documented VTE risk assessment.

VTE prophylaxis

The Safety Thermometer asks you to record whether or not an 'at risk' patient has started appropriate VTE prophylaxis. This information is required for all surveyed patients. There are three options for recording this information on the drop down menu: Yes, No and N/A.

If the patient has started appropriate VTE prophylaxis then select, 'Yes', if not, select 'No'. If the question is not appropriate for the patient or setting, for example they are not 'at risk' or are contraindicated for prophylactic treatment then select 'N/A'.

This data enables the calculation of the following indicator: V2: The proportion of 'at risk' patients receiving appropriate prophylaxis (in accordance with local guidance).



New VTE

The NHS Safety Thermometer asks you to record whether or not a patient is being clinically treated for VTE of any type. A patient may be defined as having a new VTE if they are being treated for a deep vein thrombosis (DVT), pulmonary embolism (PE) or any other recognised type of VTE with appropriate therapy such as anticoagulants. If treatment for the VTE was started after the patient was admitted to your organisation, it is counted for this measure as a new VTE. Old VTEs are not counted in this measure.

To collect the data, you may wish to assess or ask the patient about any VTE symptoms or treatment as well as consulting their notes or handover documents. If treatment for a VTE was started after the patient was admitted to your organisation, select one of the 'new' categories from the drop down menu; this will be one of 'new DVT', 'new PE' or 'new other'. If treatment for the VTE started before the patient was admitted to your organisation, use the 'old' categories from the drop down menu; this will be one of 'old DVT', 'old PE' or 'old other'. If the patient is not being treated for a VTE, select 'No VTE'.

This data enables the calculation of the following indicator: V3: The proportion of patients receiving anticoagulation

treatment (heparin, warfarin or equivalent) for treatment of a NEW clinically documented VTE event. This measure can be viewed by category (DVT/PE/Other). The measure can also be viewed by OLD and NEW VTE.

'Harm free' care

The NHS Safety Thermometer enables the calculation of the proportion of patients who received 'harm free' care. This is calculated by dividing the number of patients receiving 'harm free' care (the numerator) by the total number of patients surveyed (the denominator). The numerator is defined by counting the number of patients in whom all of the following harms are absent:

- A pressure ulcer of any of category II, III or IV, acquired anywhere
- A fall which resulted in any degree of harm within the previous 72 hours in a care setting
- A new VTE of any type acquired whilst under your care
- Treatment for a UTI in patients with an indwelling urethral urinary catheter

Patients who have one or more of the harms listed above will not be classified as 'harm free' and are thus not counted in the numerator. Patients recorded as having multiple harms are removed from the numerator in the same way as those with only one harm. The NHS Safety Thermometer calculates the 'harm free' care indicator for you, you do not need to enter any additional information. The results for the indicators described below can be seen in the analyser tool. The four harms listed above have been shown to be the most prevalent but are by no means exhaustive. Teams should therefore be aware that patients that are classified as 'harm free' in the NHS Safety Thermometer may have or be at risk of other harms not included in the definition, such as healthcare associated infection.

REFERENCE

1. Defloor T et al. Statement of the European Pressure Ulcer Advisory Panel - pressure ulcer classification. J Wound Ostomy Continence Nurs 2005;32:302-6.

The data collected throughout the NHS Safety Thermometer enables the calculation of two 'harm free' care indicators:

- HCF1: The proportion of patients without any documented evidence of a pressure ulcer (ANY origin, category II-IV), harm from a fall in care in the

last 72 hours, a urinary infection (in patients with a urethral urinary catheter) or new VTE (developed since admission to this organisation).

- HCF2: The proportion of patients without any documented evidence of a new pressure ulcer (developed

at least 72 hours after admission to this organisation, category II-IV), harm from a fall in care in the last 72 hours, a new urinary infection (in patients with a urethral urinary catheter, which has developed since admission to this organisation) or new VTE (developed since admission to this organisation).

Pressure Ulcer	P.1 The proportion of patients with an OLD pressure ulcer (present on admission to your organisation or developed within 72 hours) documented following skin inspection	P.2 The proportion of patients with a NEW pressure ulcer (NOT present on admission to your organisation & developed after 72 hours) documented following skin inspection	P.3 The proportion of patients with ANY (new or old) pressure ulcer documented following skin inspection on the day of the survey (see ST guidance).	Falls	F.1 The proportion of patients with evidence of a fall in a care setting in the last 72 hours (incl. home if on a DN caseload) from discussion with the patient & review of clinical notes reviewed on the day of survey	F.2 The proportion of patients with evidence of harm from a fall in a care setting in the last 72 hours (incl. home if on a DN caseload) from discussion with the patient & review of clinical notes reviewed on the day of survey	
	i. Each measure can be viewed by category (II-IV)				ii. This measure can be viewed by harm severity		
Catheters & Urine Infection	C.1 The proportion of patients with an In dwelling urethral urinary catheter present on the day of survey or removed in the last 72 hours	C.2 The proportion of patients with an In dwelling urethral urinary catheter also receiving treatment for a ANY urinary tract infection (on the basis of notes, clinical judgement and patient feedback)	C.3 The proportion of patients with an In dwelling urethral urinary catheter also receiving treatment for a NEW urinary tract infection (on the basis of notes, clinical judgement and patient feedback)	VTE	V.1 The proportion of patients with a documented VTE risk assessment	V.2 The proportion of 'at risk' patients receiving appropriate prophylaxis (in accordance with local guidance)	V.3 The proportion of patients receiving prescribed anticoagulation treatment (heparin, warfarin or equivalent) for treatment of a clinically documented VTE event.
	iii. This measure can also be viewed by OLD UTI iv. The proportion of patients (without catheters) being treated for UTI can be also be viewed				v. Each measure can be viewed by category (DVT / PE / Other) vi. This measure can be viewed by OLD and NEW VTE.		

'Harm free' care indicator 1 (HFC 1):

The proportion of patients without any documented evidence of a pressure ulcer, (ANY origin, category II-IV), harm from a fall in care in the last 72 hours, a urinary infection (in patients with urinary catheter) or new VTE (developed since admission to this organisation). **(The proportion of patients without documented evidence of P3, F2, C2 or V3).**

'Harm free' care indicator 2 (HFC 2):

The proportion of patients without any documented evidence of a new pressure ulcer (developed at least 72 hours after admission to this care setting, category II-IV), harm from a fall in care in the last 72 hours, a new urinary infection in patients with urinary catheter (which has developed since admission to this care setting) or new VTE (developed since admission to this organisation). **(The proportion of patients without documented evidence of P2, F2, C3 or V3).**

Inclusions & exclusions for the NHS Safety Thermometer

The CQUIN to incentivise the use of the NHS Safety Thermometer states that '100% of all relevant patients' should be surveyed on the day of audit. The following inclusions and exclusions in the table on page 29 have been developed by expert groups and revised throughout 2011. The exclusions applied to the NHS Safety Thermometer, at an organisational, cohort and patient level, at this stage are considered areas for development throughout 2012. Further safety thermometers will be developed for some specialties.

Inclusions and exclusions

'Relevant patients' are defined in the table opposite for each organisation or service type in columns 2 and 3 as 'inclusions'. There are also a range of exclusions. These are shown for each organisation or service types in columns 4, 5 and 6.

A practical approach has been taken and throughout 2012-13 the steering group will continue to work with professional bodies to review the inclusions and exclusions and make adjustments where necessary.

Where organisations feel they have identified an additional cohort or set of patients for whom surveying with the NHS Safety Thermometer is inappropriate (i.e. should be excluded from the survey), the Form A on page 31 should be completed before 31st August 2012. This will be reviewed by an expert professional reference group who will reach agreement whether or not the proposed exclusion is to be incorporated into the existing NHS Safety Thermometer guidance. The initial proposal for how this process will work can be seen on page 30. The process uses a template, for consistency of application, which ensures a record of all proposed exclusions is kept for reference and incorporation into FAQs and/or additional guidance. In the same way, definition queries should be reported using Form B on page 32.

Notes

Term: Day case

Definition: A patient admitted electively during the course of a day with the intention of receiving care who does not require the use of a hospital bed overnight (patient classification code = 2) and who returns home as scheduled. If this original intention is not fulfilled and the patient stays overnight, such a patient should be counted as an ordinary admission and included in the NHS Safety Thermometer survey.

Term: Outpatient

Definition: An Out-Patient Attendance is an attendance at which a patient is seen by or has contact with (face to face or via telephone/telemedicine) a health care professional, in respect of one referral, in a clinic setting.

Term: A&E attendance

Definition: An individual visit by one patient to an Accident and Emergency Department to receive treatment from the accident and emergency service.

Term: Neonatal patients

Definition: Babies in care who are 28 days old or less.

Term: Dialysis patients

Definition: Patients undergoing regular dialysis who should be recorded as a regular day admission (patient classification code = 3).

Term: Old age mental health and learning disability services

Definition: Mental health and learning disability services provided to patients generally over the age of 65. Inpatient older people's mental health services would usually be recorded under the treatment function 715 (Old Age Psychiatry).

Term: CICs

Definition: Community Interest Companies (CICs) are limited companies created for the use of people who want to conduct a business or other activity for community benefit, and not purely for private advantage.

Term: Regular day attenders

Definition: Patients undergoing regular treatments (e.g. chemotherapy) who should be recorded as a regular day admission (patient classification code = 3).

Term: Health visiting

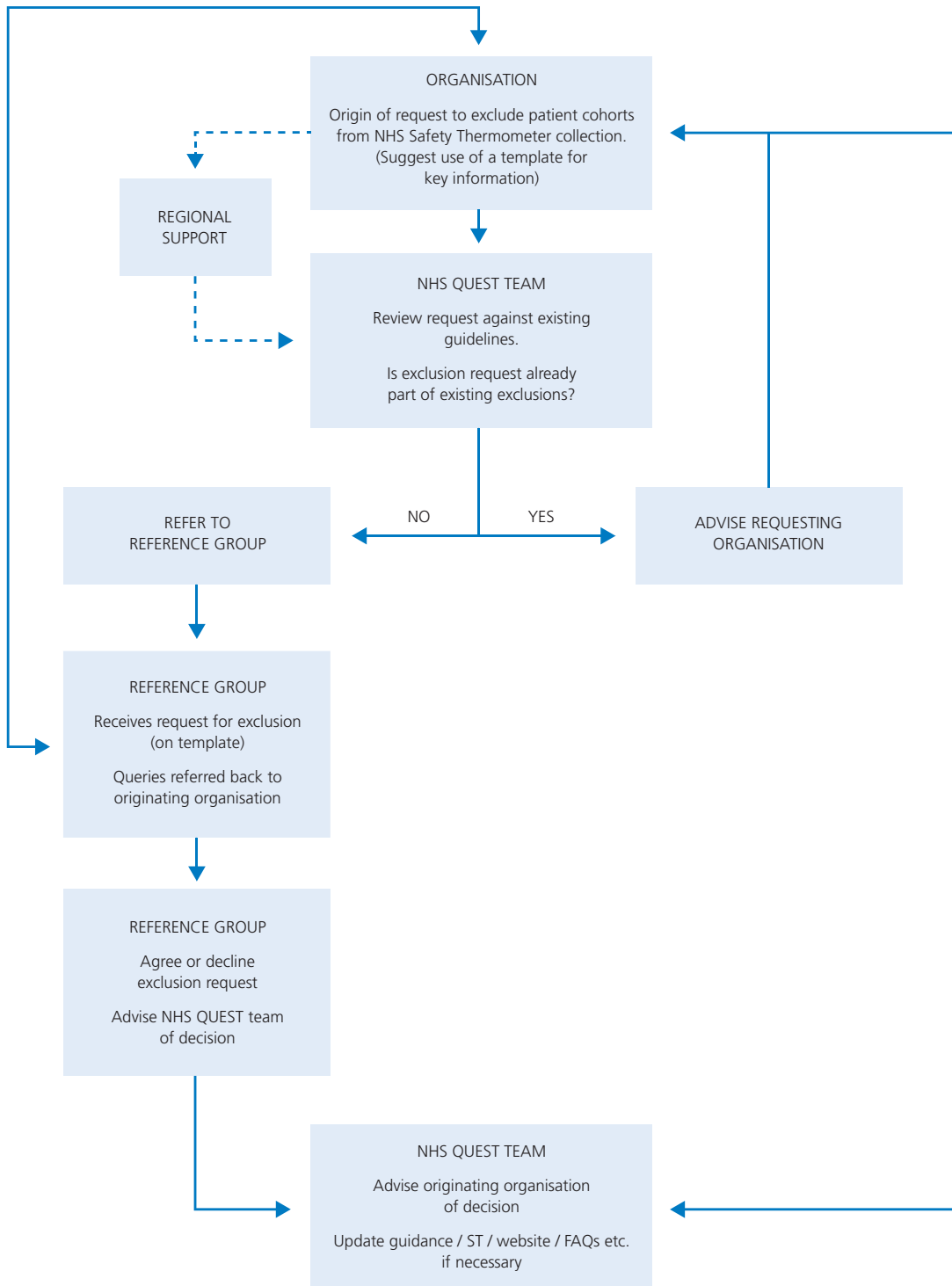
Definition: Teams employed to visit people in their homes and give help and advice on health and social welfare, specifically to mothers of preschool children, to the disabled, and to elderly people.

Term: School nursing

Definition: Teams/staff working with school-age children and young people in a range of settings including schools.

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Organisation type	Included	Patients	Excluded	Cohort	Patients
	Cohort				
Acute hospital	All specialties & services including prison & military services, theatre recovery, critical care units, neonatal intensive care (pressure ulcers only) and postnatal wards, minus specified exclusions (see column 5)	All inpatients on the day of the survey, minus specified exclusions (see column 5)	None	Day cases, outpatients, A&E attendances, well babies, renal dialysis patients, regular day attenders (see notes below)	There are no specific patient exclusions, although the 'not applicable' option may be used for the VTE measures in some settings, for example a district nursing caseload
Specialist hospitals (inc. orthopaedic, ENT, neurology, paediatrics, women's)	All specialties & services including theatre recovery, critical care units and postnatal wards, minus specified exclusions (see column 4&5)	All inpatients on the day of the survey, minus specified exclusions (see column 5)	Specialist Eye Hospitals	Day cases, outpatients, A&E attendances, neonatal patients, renal dialysis patients, regular day attenders (see notes below)	
Mental health and Learning Disability inpatient facilities	All old age mental health and learning disability specialties & services (see notes below), including any prison services, minus specified exclusions (see column 5)	All inpatients on the day of the survey, minus specified exclusions (see column 5)	None	Outpatients, all specialties not related to old age mental health and learning disabilities (e.g. child and adolescent, forensic, psychotherapy, eating disorders)	
Mental health and Learning Disability community teams	All old age mental health and learning disability specialties & services, including any prison services, minus specified exclusions (see column 5)	All patients seen by the team on the day of the survey, minus specified exclusions (see column 5)	None	Outpatients, all specialties not related to old age mental health and learning disabilities (e.g. child and adolescent, forensic, psychotherapy, eating disorders).	
Community hospital, including social enterprises/CICs providing NHS funded care	All specialties & services including prison & military services, minus specified exclusions (see column 5)	All inpatients on the day of the survey, minus specified exclusions (see column 5)	None	Day cases, outpatients, A&E attendances, neonatal patients, renal dialysis patients, regular day attenders (see notes below)	
Community services, including social enterprises/CICs providing NHS funded care	Community (district) nursing (inc. virtual wards), integrated rehabilitation services, rapid response, prison services, military services, minus specified exclusions (see column 5)	All patients seen by the team on the day of the survey, minus specified exclusions (see column 5)	None	Outpatients (e.g. podiatry, continence, leg ulcer clinics, SALT), health visiting, school nursing (see notes below)	
Independent sector hospitals providing NHS funded care	All NHS funded specialties & services including prison & military services, minus specified exclusions (see column 5)	All NHS funded inpatients on the day of the survey, minus specified exclusions (see column 5)	None	Day cases, outpatients, A&E attendances, neonatal patients, renal dialysis patients, regular day attenders (see notes on previous page)	
Nursing homes	All NHS funded residents	All NHS funded residents on the day of the survey	None	None	
Ambulance trusts			Ambulance trusts are excluded from NHS Safety Thermometer survey		

Exclusions approval process



Form A: NHS Safety Thermometer patient cohort exclusion template

Organisation name	
SHA region	
Contact name	
Contact number	
Contact e-mail	
Brief description of patient cohort to be excluded	
Rationale for exclusion	
Estimated number of patients in cohort (based on a single month's NHS Safety Thermometer collection)	
<p><i>E-mail this form to the NHS QUEST team at Abigail.warren@nhs.net or k.cheema@nhs.net</i> <i>Your request will be reviewed by an expert reference group. The outcome of the review will be advised to you within 6 weeks.</i></p>	
FOR NHS QUEST USE ONLY	
Date received:	
NHS Quest reviewer:	
Date sent to ref group:	
Outcome (accept/reject):	
Date and contact when outcome advised:	

All comments must be received by 31st August 2012

Form B: NHS Safety Thermometer definition query template

Organisation name	
SHA region	
Contact name	
Contact number	
Contact e-mail	
Definition	
Issue	
Suggested change / alternative? (including clinical justification)	
Further comments	
<p><i>E-mail this form to the NHS QUEST team at Abigail.warren@nhs.net</i> <i>Your request will be reviewed by an expert reference group. The outcome of the review will be advised to you within 6 weeks.</i></p>	
FOR NHS QUEST USE ONLY	
Date received:	
NHS Quest reviewer:	
Date sent to ref group:	
Outcome (accept/reject):	
Date and contact when outcome advised:	

All comments must be received by 31st August 2012

Partners

NHS The Information Centre

National VTE Board

NHS Quest

NHS Institute for Innovation
and Improvement

SHA clusters

About this Document

This is the first of a series of guidance documents to support the implementation of the NHS Safety Thermometer National CQUIN. This document is intended to provide guidance around essential first steps in implementing the NHS Safety Thermometer and achieving the CQUIN for 2012/13. This document also provides guidance on setting up the data collection systems, validating data, and understanding the data collected.

Subsequent documents in the series will cover:

- Understanding the data in the context of other data collection systems
- Embedding the NHS Safety Thermometer in your safety culture
- Prioritising measuring harm
- Delivering this key patient safety priority *and*
- Guidance for commissioners on using the data to set improvement goals

ROCR reference number

This data collection is licensed under the ROCR reference: ROCR/OR/2133/001VOLU

Enquiries / Support

For further information about the Safety Thermometer or in case of problems please contact the NHS Information Centre enquiries at enquiries@ic.nhs.uk, or 0845 300 6016. We also welcome your feedback about how we might improve the Safety Thermometer; please use the same email / contact number to tell us your suggestion.

For technical questions, feedback and queries (including submitted data and identifying local SHA and Quality Observatory NHS Safety Thermometer leads), please contact us:

Email: enquiries@ic.nhs.uk

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A new mindset in patient safety improvement