Welcome to our Preparing for Managing Deterioration Webinar

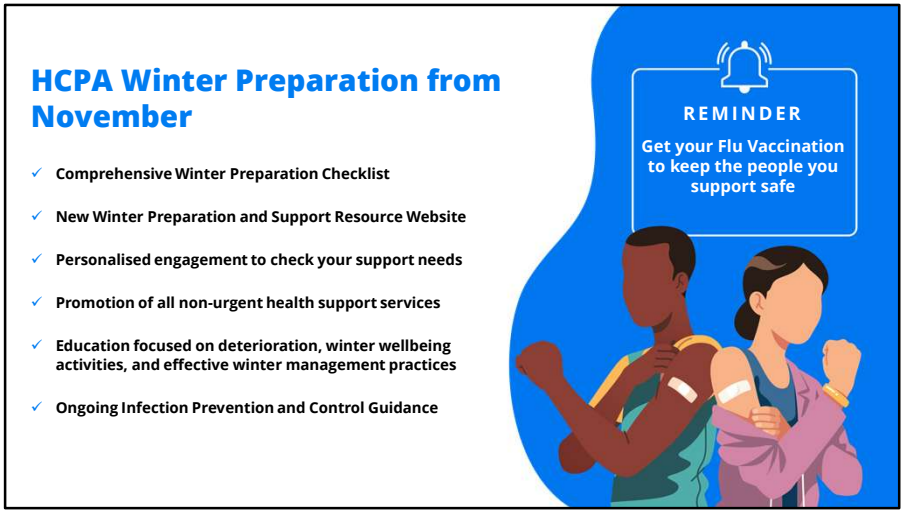
This webinar will begin shortly

Welcome

Preparing for Managing Deterioration During Winter Webinar for Manager

November 2025

Hertfordshire



Series of support to help providers with winter

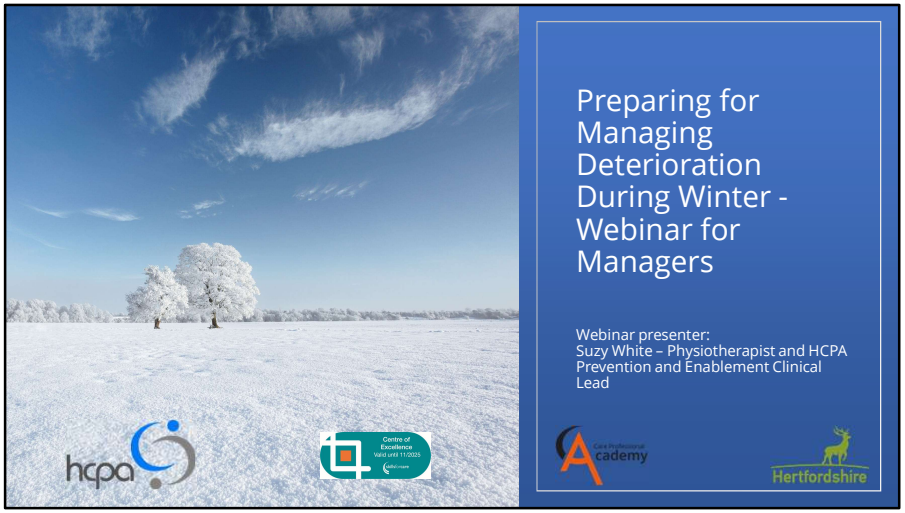
Link to BCP from checklists and preparation

Education = Basic health obs. Infection control. Wellbeing during darker months
Non urgent = Admission avoidance / early intervention

Webinar Housekeeping

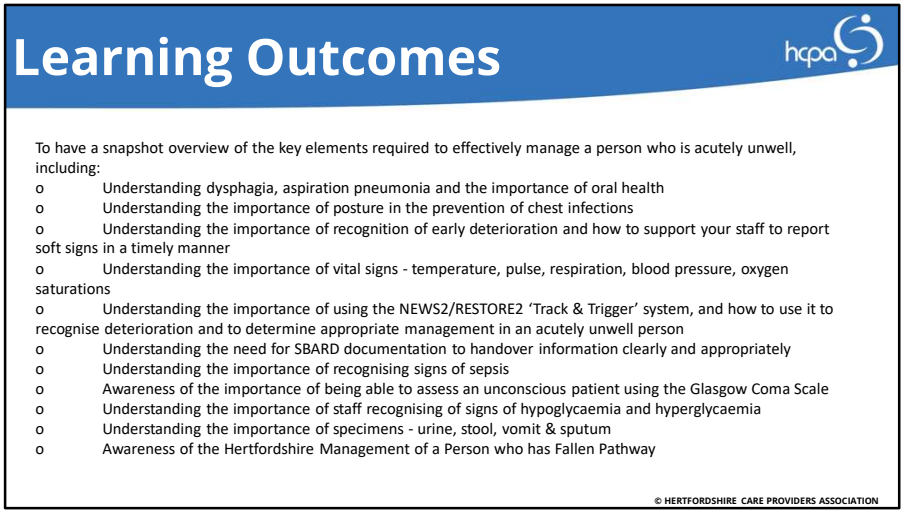
- This webinar is being recorded and will be used to create a video resource for our website.
- Slides will be shared as a PDF following the session. We will also share an FAQ and Suzy's notes.
- We have switched off your microphones and cameras. Please use the Q&A box to ask a question.
- Slido will be used in todays session, please get your phone or browser ready
- You will be issued a CPD Certificate for attendance at this event. **Certificates will be uploaded to your Care Professional Academy.**

Using the **Chat** please tell us what you hope to get out of todays session?



Hi everyone,
My name is Suzy and I am a Physiotherapist and I am also the Clinical lead for the prevention and Enablement Team here at HCPA.
I have worked for many years in the care sector, mainly with people who have complex neurological conditions.
And for any of you attending this webinar who don't know this , a third of a UK Physiotherapy degree is actually respiratory care, and we all have to do respiratory on-call duty when we work in a hospital. Some physios may then specialise in Musculoskeletal conditions so they don't tend to use their respiratory knowledge much, but for me, because many people with Neurological conditions also have respiratory problems, this has remained one of the areas in which I have gained lots of experience, so consequently, I have taught care staff for example, about respiratory conditions, for many years, and as I am sure won't be a surprise to you, a big part of this webinar focusses on a person who has a chest infection.

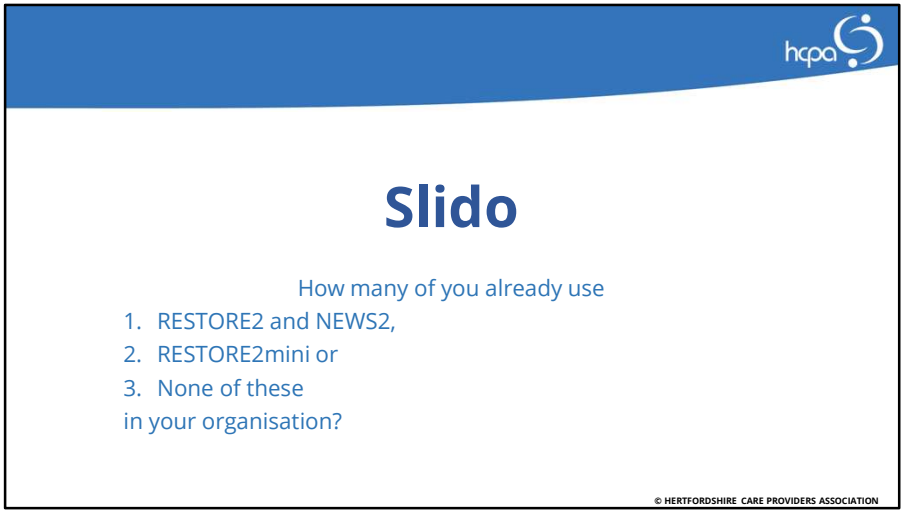
So .....Are <u>you</u> ready for this year's Winter Pressures?
This webinar aims to highlight the importance of upskilling your staff with the knowledge and skills needed to recognise early signs of deterioration in the individuals in your care, and to prevent them from deteriorating further, so that they can remain healthy, and at home, wherever possible.
Ultimately it will mean that the people you care for are much more likely to continue to thrive throughout the difficult winter months.



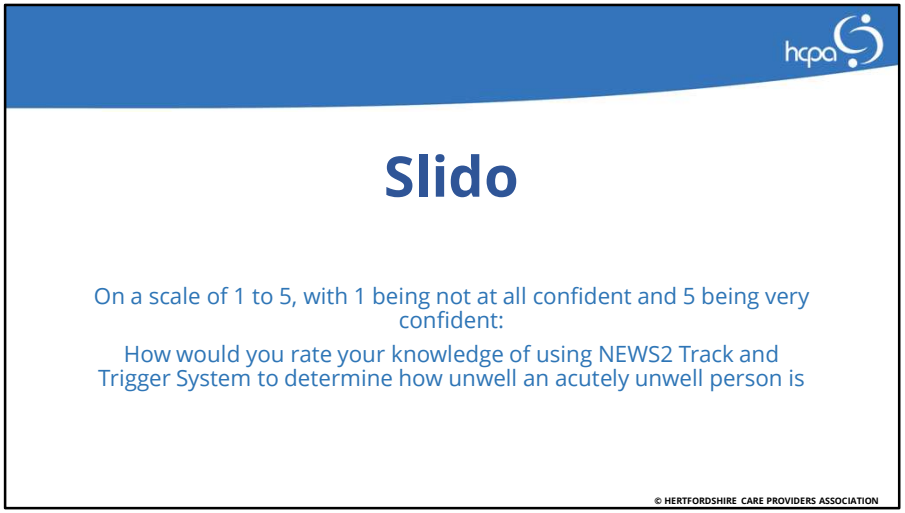
In this session you will gain a snapshot overview of the key elements required to effectively manage a person who is acutely unwell, including giving you understanding of what I am going to be teaching your staff on the up and coming 4 one day courses called **Preventing and Managing Deterioration During Winter including Basic Health Observations** – that is If you book them on!

As you can see there are quite a few learning outcomes so rather than read them out, I will just tell you that, apart from looking at some of the winter pressures figures,

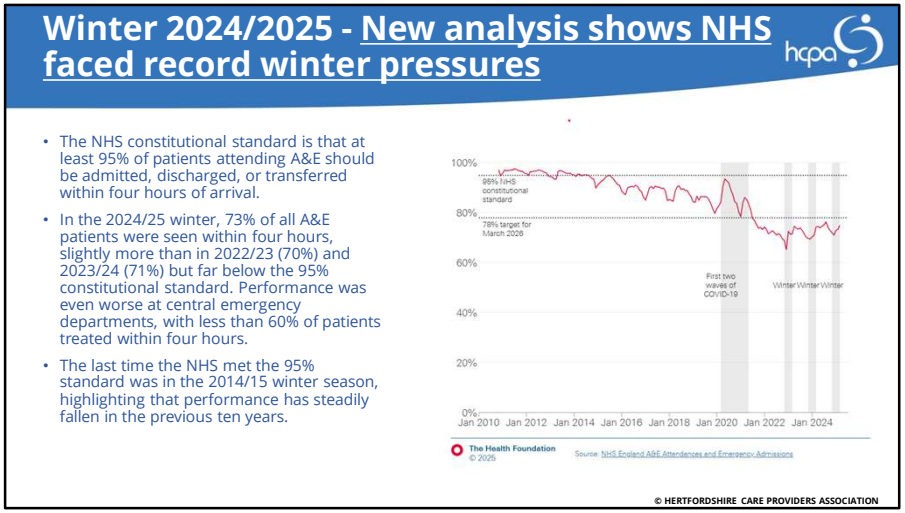
the main topics are dysphagia, respiratory infections, sepsis, and how to use the NEWS2 and RESTORE2 documentation, and then we touch on hyper and hypoglycaemia, collecting specimens and lastly how to manage a person who has fallen. These are huge topics, so as I am sure you can appreciate this really is a brief overview, with the overall aim of giving you some tips on how to keep people well and especially, how to reduce hospital admissions wherever possible during the coming winter period



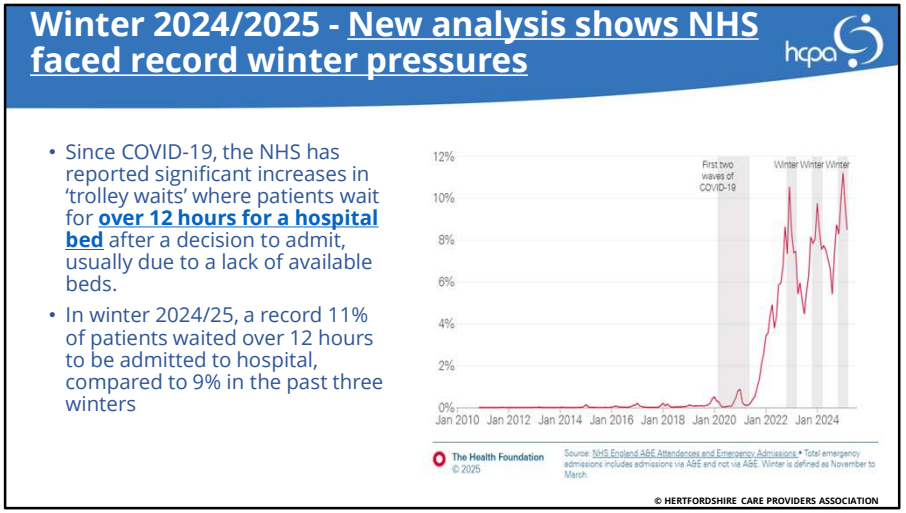
So first o all,I just want to get an idea of how many of you already use RESTORE2 and NEWS2 in your organisation?



On a scale of 1 to 5, with 1 being not at all confident and 5 being very confident:
How would you rate your knowledge of using NEWS2 Track and Trigger System to determine how unwell an acutely unwell person is



So first all, let's have a look at some of the evidence about the Winter Pressures from last year
This information is taken from The Health Foundation who found in their
New analysis shows NHS faced record winter pressures in 2024/25
The NHS constitutional standard is that at least 95% of patients attending A&E should be admitted, discharged, or transferred within four hours of arrival.
In the 2024/25 winter, only 73% of all A&E patients were seen within four hours, slightly more than in 2022/23 (70%) and 2023/24 (71%) but *far below* the 95% constitutional standard. Performance was even worse at central emergency departments, with less than 60% of patients treated within four hours.
The last time the NHS met the 95% standard was in the 2014/15 winter season, highlighting that performance has steadily fallen in the past ten years.
As you can see from the graph New analysis shows NHS faced record winter pressures in 2024/25



And as you may have noticed, since COVID-19, the NHS has reported significant increases in 'trolley waits' where patients wait for **over 12 hours for a hospital bed** after a decision to admit, and this is usually due to a lack of available beds.

And In winter 2024/25, a record 11% of patients waited over 12 hours to be admitted to hospital, compared to 9% in the past three winters

See the graph

The NHS Winter Preparedness document

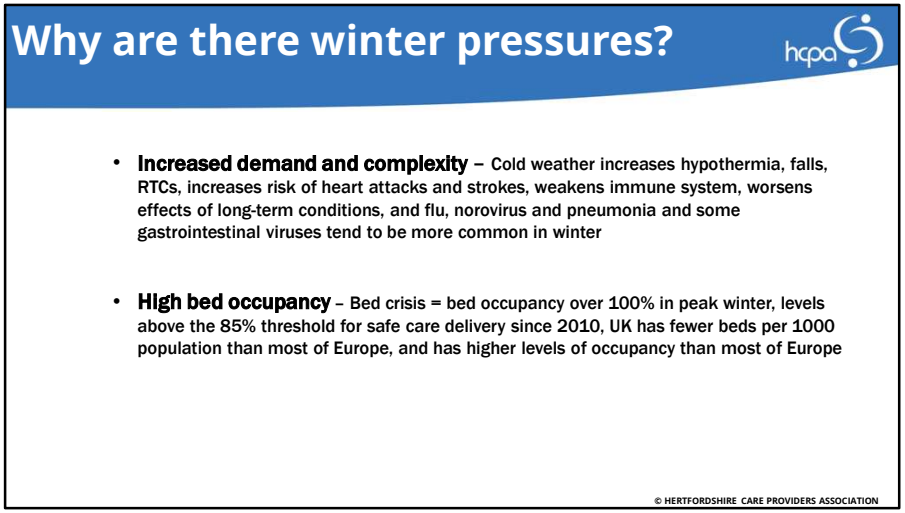
- This briefing looks at some of the reasons there are additional pressures on the NHS during the winter, and how the NHS in England seeks to address this, ensuring hospitals can cope through the colder months
- Pressures identified in winter 2024/25, direct the plans for the NHS in England to prepare for winter 2025/26
- Whilst the focus is often on ambulance and hospital services, general practice and other non-hospital care can also face heightened demand

The NHS Winter Preparedness document (written in August of this year is a Parliament research briefing that looks at some of the reasons that there are additional pressures on the NHS in England during the winter, and how the NHS seeks to address this, ensuring hospitals can cope through the colder months

- It focusses on some of the pressures identified in winter 2024/25, and the plans to prepare for winter 2025/26 as winter remains a critical stress point for the NHS, especially for accident and emergency (A&E) departments and ambulance services

- Also, as we know, whilst the policy and monitoring of winter pressures often focuses on ambulance and hospital services, general practice and other non-hospital care can also face heightened demand

CBP-10320.pdf



CBP-10320.pdf – Govt briefing NHS Winter Preparedness August 2025

So why are there winter pressures?
Well there is **Increased demand and complexity**

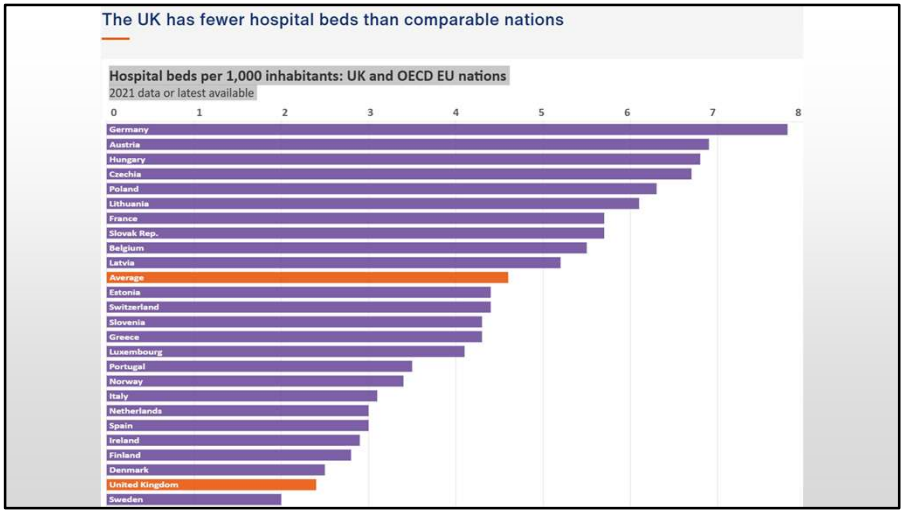
- Although the number of attendances at A&E departments is often lower during the winter, the people who attend often have more serious and complex conditions, and the number of admissions is generally higher in the winter.
- Cold weather increases the risk of heart attacks and strokes and it reduces effectiveness of the natural immune system as well as exacerbating underlying health issues, like cardiovascular and respiratory conditions
- It increases the cases of hypothermia, and of course there is a greater likelihood of falls and injuries in icy conditions.
- Hypothermia and falls, may exacerbate long-term conditions like asthma and diabetes.
- Illnesses such as flu, norovirus and pneumonia can particularly affect older people and other more vulnerable patients
- And Some gastrointestinal viral infections like norovirus are also more common in the winter.

These factors lead to more people being admitted to hospital over the winter period.

- And of course, Snow and ice also cause disruption in provision of essential services, and access to those services, including healthcare, as well as causing Road Traffic Collisions

And then bed occupancy is high

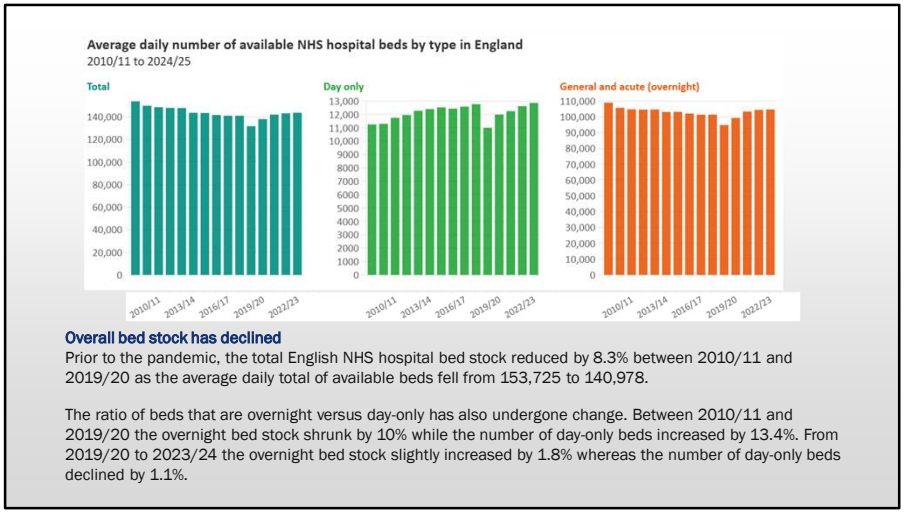
- Longstanding pressures to reduce beds has put many hospitals in a perpetual bed crisis and in many cases, this has led to bed occupancy rates being over 100% during peak winter periods
- Bed occupancy has been increasing for the past 15 years and has been exceeding the maximum NHS threshold of 92% since winter 2017/2018
- And since 2010, levels have been above the 85% threshold recommended by the Royal College of Emergency Medicine to deliver care safely, and all year-round
- And although the NHS had an average of around 2,000 more general and acute beds open over winter 2024/25 than in winter 2022/23, bed occupancy has remained high



[NHS hospital beds data analysis]

British Medical Association updated Jan 2025 - **NHS hospital beds data analysis**

And you can see here that The UK has fewer hospital beds per 1,000 population than most other European countries. Germany has more than 3 times the beds that the UK have at 7.8 per 1000 people and the average for Europe is 4.6 which is almost DOUBLE what we have here in the UK at 2.4



Overall bed stock has declined

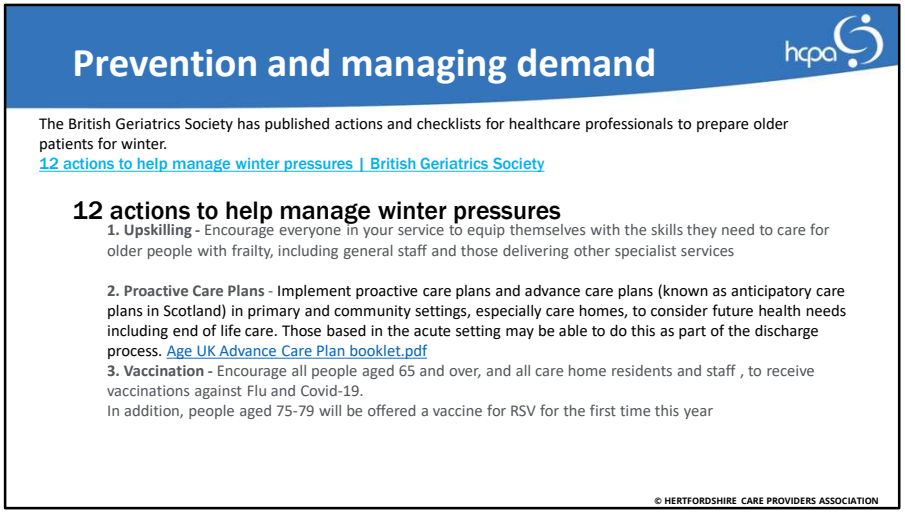
Prior to the pandemic, the total English NHS hospital bed stock reduced by 8.3% between 2010/11 and 2019/20 as the average daily total of available beds fell from around 154.000 to 141,000, that is 13,000 LESS BEDS now compared to 10 years ago!

The ratio of beds that are overnight versus 'day-only' has also changed. From 2010 til now, the overnight bed stock has shrunk by 4% (it was even lower during the pandemic!), although the number of 'day-only' beds has increased by around 20%. However, the rise in general and acute 'day-only' beds reflects an increase in day-case elective surgeries reducing the need for overnight stays, following clinical innovations that have lowered the time patients generally need to spend in hospital.

Different settings The extent to which overnight bed numbers have fallen varies across different settings. Learning disability and mental illness beds have seen the largest reduction of 59.8% and 20.1 % from 2010 and 2024. This reflects policies to move care for these patient groups out of hospitals and into the community.

AND as we said before....Safe limits are routinely breached
And there is Rising occupancy
While overall bed numbers have declined, occupancy rates have been rising.
Since 2010, average bed occupancy has consistently surpassed 85%, as we said before, the level generally considered to be the point beyond which safety and efficiency are at risk.
In short, bed shortages alongside high occupancy rates are unsafe for patients and staff.
This can:

- increase delays in emergency departments
- delay patients transfer from intensive care units and between wards
- add stress to staff and patients



So, The British Geriatrics Society has published actions and checklists for healthcare professionals to prepare older patients for winter. But this is also really useful for **anyone** receiving care

The checklist includes:

- 12 actions to help manage winter pressures (October 2024)

There are loads of resources too if you follow the link at the top.

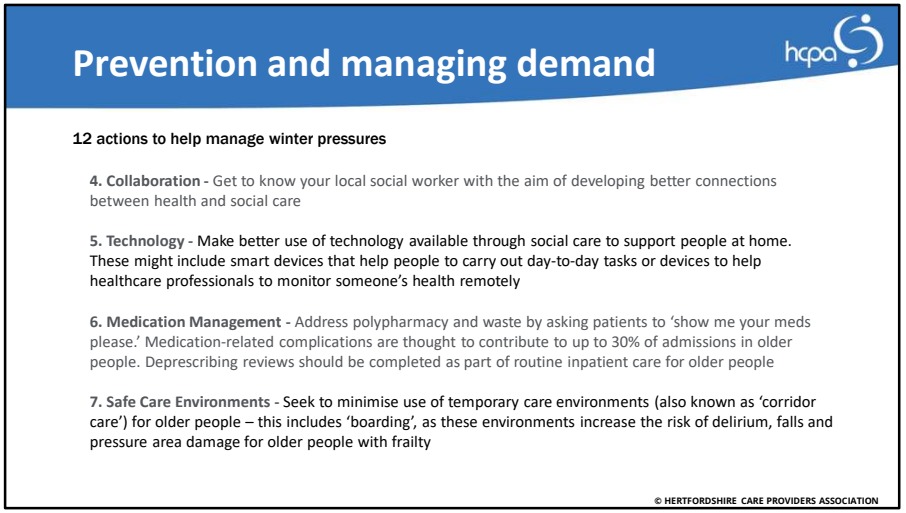
I am going to just list them here, but you will have the detail on the slides or you can follow the link

CBP-10320.pdf

1. **Upskilling -** Encourage everyone in your service to equip themselves with the skills they need to care for older people with frailty – such as Falls and Frailty training, or Basic Health Observations training
2. **Proactive Care Plans** - Implement proactive care plans and advance care plans in primary and community settings, especially care homes, to consider future health needs including end of life care. These must be shared with relevant family members and added to healthcare records to ensure that they are followed when necessary. I hope most of you are starting to get ReSPECT forms in place for people in your care so that this information is captured for when it might be needed… and I think we all need to start talking about this with our loved ones. And for ourselves….. What are our wishes around limits of treatment in different circumstances?
For example, some people may want to go to hospital if they have fractured their hip, but they may not want to if they have a heart attack and need resuscitation….and we need to know this!

And to compound that, according to the results of a study from Age UK in 2018:

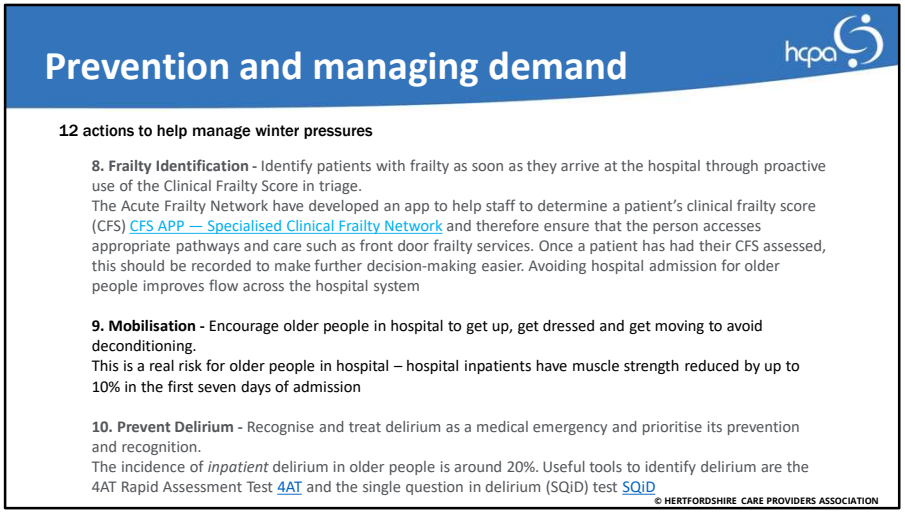
Around, 341,000 over 65s were admitted to hospital for avoidable reasons from April 2016-2017
This was equivalent to approximately 1,000 older people being admitted to hospital unnecessarily each day
And since 2003, rates of unnecessary admissions have risen 107% among people aged 65-69, and 119% for people aged 75-79
And many of these may not have even wanted to go to hospital!



4. Collaboration Get to know your local social worker with the aim of developing better connections between health and social care.
5. Technology Make better use of technology available through social care to support people at home.
6. Medication Management - Address polypharmacy and waste by asking patients to 'show me your meds please.'
Community staff on routine home visits can ask to see a patient's medications and, if they have any concerns, can contact the primary care team who can then follow up with a full review. Medication-related complications are thought to contribute to up to 30% of admissions in older people. Deprescribing reviews should be completed as part of routine inpatient care for older people. So it's not just about *reviewing* the medicationwe should be asking for, and expecting, meds to be reduced or changed wherever possible! Medication accounts for 25% of carbon emissions in the NHS so reducing unnecessary prescribing not only reduces the risk of medication-associated harm but also contributes to reducing the carbon footprint of the NHS.
7. Safe Care Environments Seek to minimise use of temporary care environments (also known as 'corridor care') for older people - obviously for hospital settings
The Preparing for winter (August 2025) guidelines also state that older people should be encouraged to keep homes warm, so any concerns should be flagged by your teams and also something that may be useful for people who are cared for in their own home is …..a booklet by Hertfordshire's Environmental Health/ Housing Department teams called ***damp and mould in the home professionals e-booklet*** which has advice on the health risks, and as these can impact a person's breathing by causing coughing, wheezing, and shortness of breath, as well as an increased risk of airway infections, and the development or worsening of allergic airway diseases, such as asthma and other conditions that involve inflammation of the airways – it is well worth eliminating it as it may be a factor that contributes to winter hospital admissions

And just to add, surprisingly there is nothing here about Infection Control, which, in terms of safe environments, is extremely important in terms of minimising the spread of any

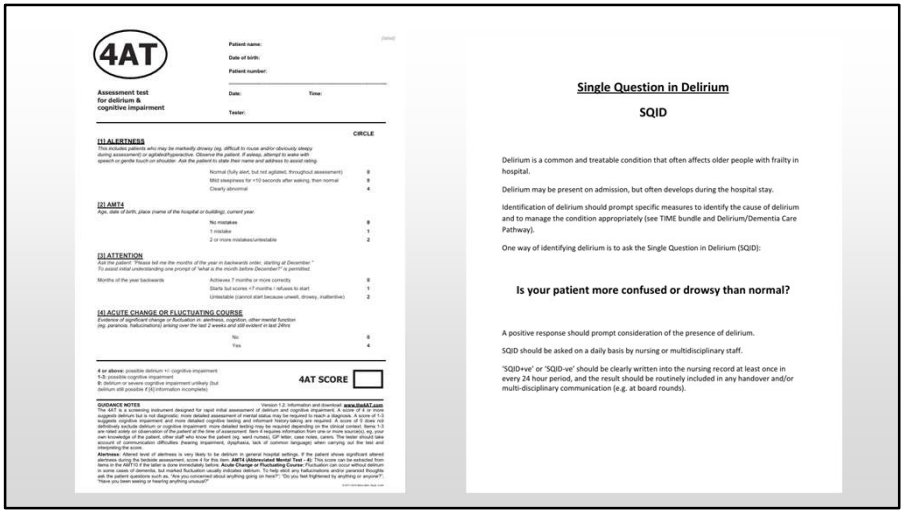
contagious antigens. But rather than going into detail on this webinar, please know you can refer to the HCPA website for more guidance.
And these considerations should include things like cleaning of digital equipment, tablets and phones, that we are handling all day as we may potentially be spreading around pathogens that are potentially dangerous to the people we care for, because we touch our phones and don't even think about washing our hands, or of course if we actually contract a virus like flu, we may spread this before we even show symptoms. And that is not to mention the fact that we also may become unwell ourselves!



8. Frailty Identification - Identify patients with frailty as soon as they arrive at the hospital. Frailty scores should be included in a temporary setting to allow better risk management, so **you** should include a person's frailty score in your handover to paramedics – as, as I am sure you know, frailty cannot be assessed accurately when the person is acutely unwell.
You should all now be starting to use the Clinical Frailty Scale (The Rockwood) to assess frailty so that we are consistent with what they use in hospital settings, it used to be only for Health Professionals to use but the decision has been made (at least in Hertfordshire) that you can all use it if you have had training. We cover this on the Falls and Frailty Champion course by the way. And this assessment makes decision-making easier for the medics and might even mean the person avoids hospital admission because by identifying people living with frailty quickly and ensuring that they are triaged and treated quickly and discharged home on the same day, beds are freed up across the hospital, allowing the system to address elective waiting lists. This improves patient experience and outcomes as well as making the entire system more efficient, so it is a big deal!

9. Mobilisation Encourage older people in hospital to get up, get dressed and get moving to avoid deconditioning.
This is a real risk for older people in hospital – hospital inpatients have muscle strength reduced by up to 10% in the first seven days of admission.
As you know people are often discharged not being able to mobilise as they did when they went in.
Welcoming carers and family members into the acute hospital setting can also help to avoid deconditioning as they can help their loved ones to get out of bed and mobilise.
And on our Enabling and Mobility Champion training, I teach care staff how to get those people who have been discharged, and who are not yet back to their previous mobility status, to get back on their feet safely, as waiting 5-6 weeks for the Community physios to come, may mean that the person never gets back on their feet!

10. Prevent Delirium Recognise and treat delirium as a medical emergency and prioritise its prevention and recognition.
One in four older patients (over 65) admitted to hospital as an emergency also experiences delirium, and a study by Age UK in 2022 showed that patients with delirium –when admitted to hospital are much more likely to die within 30 days and to have a longer hospital stay.



4AT

Assessment test for delirium & cognitive impairment

Patient name:

Date of birth:

Patient number:

Date: Time:

Tester:

CIRCLE

[1] ALERTNESS

This includes patients who may be markedly drowsy (eg, difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating.

Normal (fully alert, but not agitated, throughout assessment) 0
Mild sleepiness for <10 seconds after waking, then normal 0
Clearly abnormal 4

[2] AMT4

Age, date of birth, place (name of the hospital or building), current year.

No mistakes 0
1 mistake 1
2 or more mistakes/untestable 2

[3] ATTENTION

Ask the patient: "Please tell me the months of the year in backwards order, starting at December." To assist initial understanding one prompt of "what is the month before December?" is permitted.

Months of the year backwards

Achieves 7 months or more correctly 0
Starts but scores <7 months / refuses to start 1
Untestable (cannot start because unwell, drowsy, inattentive) 2

[4] ACUTE CHANGE OR FLUCTUATING COURSE

Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg, paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs

No 0
Yes 4

4 or above: possible delirium +/- cognitive impairment
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete)

4AT SCORE

GUIDANCE NOTES — Version 1.2. Information and download: www.the4AT.com

The 4AT is a screening instrument designed for rapid initial assessment of delirium and cognitive impairment. A score of 4 or more suggests delirium but is not diagnostic; more detailed assessment of mental status may be required to reach a diagnosis. A score of 1-3 suggests cognitive impairment, and should prompt further assessment for delirium if not already known. A score of 0 does not definitively exclude delirium or cognitive impairment; more detailed testing may be required depending on the clinical context. Items 1-3 are rated solely on observation of the patient at the time of assessment. Item 4 requires information from one or more source(s), eg, your own knowledge of the patient, other staff who know the patient (eg, ward nurses), GP letter, case notes, carers. The tester should take account of communication difficulties (hearing impairment, dysphasia, lack of common language) when carrying out the test and interpreting results.

Alertness: Altered level of alertness is very likely to be delirium in general hospital settings. If the patient shows significant altered alertness during the bedside assessment, score 4 for this item. **AMT4 (Abbreviated Mental Test - 4):** This score can be extracted from items in the AMT10 if the latter is done immediately before. **Acute Change or Fluctuating Course:** Fluctuation can occur without delirium in some cases of dementia, but marked fluctuation usually indicates delirium. To help elicit any hallucinations and/or paranoid thoughts ask "Do you see things or hear things others don't?" "Do you feel frightened by anything or anyone?". "Have you been seeing or hearing anything unusual?"

Single Question in Delirium

SQID

Delirium is a common and treatable condition that often affects older people with frailty in hospital.

Delirium may be present on admission, but often develops during the hospital stay.

Identification of delirium should prompt specific measures to identify the cause of delirium and to manage the condition appropriately (see TIME bundle and Delirium/Dementia Care Pathway).

One way of identifying delirium is to ask the Single Question in Delirium (SQID):

Is your patient more confused or drowsy than normal?

A positive response should prompt consideration of the presence of delirium.

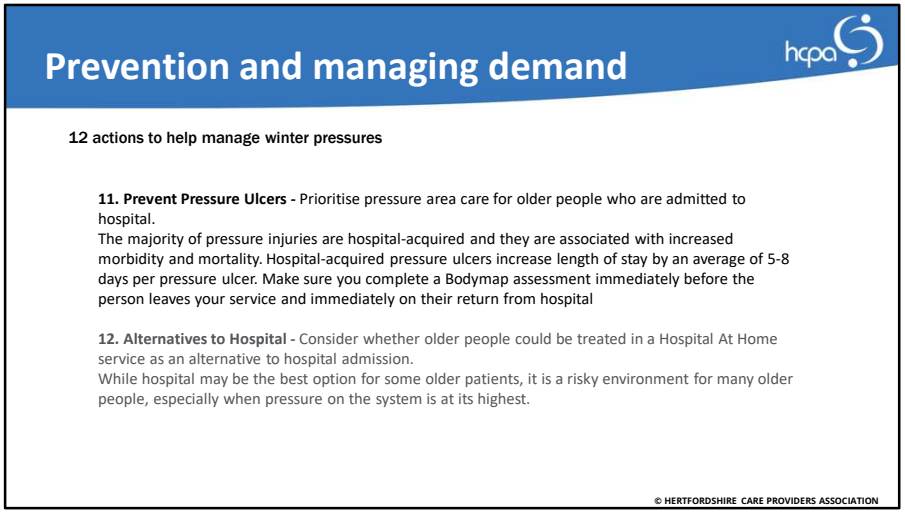
SQID should be asked on a daily basis by nursing or multidisciplinary staff.

'SQID+ve' or 'SQID-ve' should be clearly written into the nursing record at least once in every 24 hour period, and the result should be routinely included in any handover and/or multi-disciplinary communication (e.g. at board rounds).

This guidance also advocates the use of 2 very simple and quick ax tools for delirium and cognition - the **4AT** which has 4 q's and has a maximum score of 12, although 4 and above indicate possible delirium =/- cognitive impairment

For example - Q1 is about Alertness and…if they are presenting as 'normal, they score 0, or with mild sleepiness, also 0, and if they are clearly abnormal (compared to *their* normal of course), they score a 4
Q2 is about their cognition
And according to the **UK NICE Guideline on Delirium, 2023,** the 4AT was deemed to be the best option for most settings and it is among the most accurate of the tools reviewed, quick and simple to use**"**
The SQID stands for Single Question in Dementia – and
That question is :
Is your patient (person) more confused or drowsy that normal? And a +ve response to this should prompt consideration of the presence of delirium – extremely simple because you know what is normal for that person and you can pass this on to paramedics because the hospital staff of course, will NOT know how the person usually is!

Also HCPA have a delirium which gives more detail and which identifies recent changes and triggers actions
Hertfordshire-Care-Provider-Dementia-Checklist-V2.pdf



And the last 2 of the 12 actions……

11. Prevent Pressure Ulcers - Prioritise pressure area care for older people who are admitted to hospital

The majority of pressure injuries are hospital-acquired and they are associated with increased morbidity and mortality.[5] Hospital-acquired pressure ulcers increase length of stay by an average of 5-8 days per pressure ulcer.

SO…. make sure you complete your Bodymap assessment immediately **before** the person leaves your service and immediately on their return from hospital!

Hospitals should have clear pathways for identifying patients who need pressure mattresses, ordering mattresses and ensuring that pressure mattresses follow patients if they are moved within the hospital. Processes should also be in place for routine skin checks for older people in emergency departments and to regularly turn patients who are at high risk of developing pressure ulcers, but in the event that these fail, make sure **you** have **your** documentation in place !!!!

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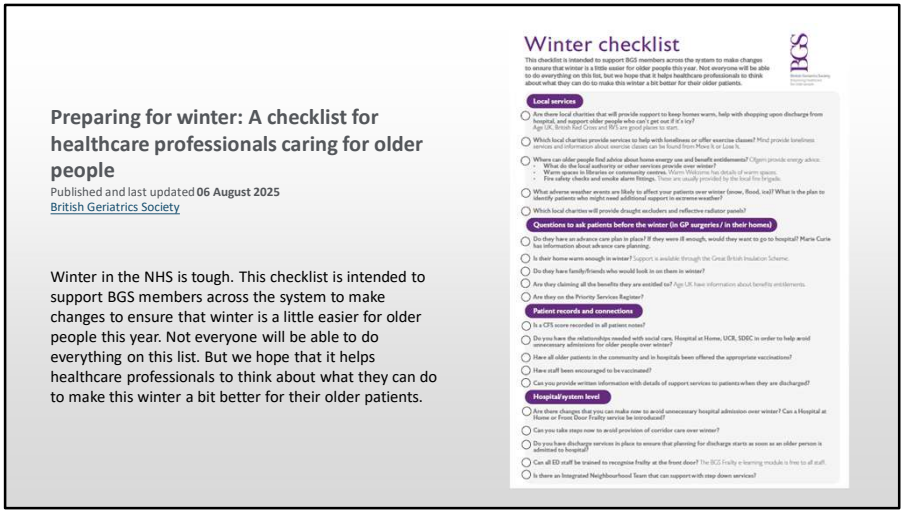
12. Alternatives to Hospital Some older people can be treated by a Hospital At Home service as an alternative to hospital admission.

While hospital may be the best option for some older patients, it is a risky environment for many older people, and many older people would prefer to avoid hospital admission if possible and where hospital treatment can be provided in a home setting with comparable outcomes , this should be considered. Hospital At Home services are available in many parts of the country and I know these are developed and refined at the moment in Hertfordshire ,so check what local arrangements are in place for your area.

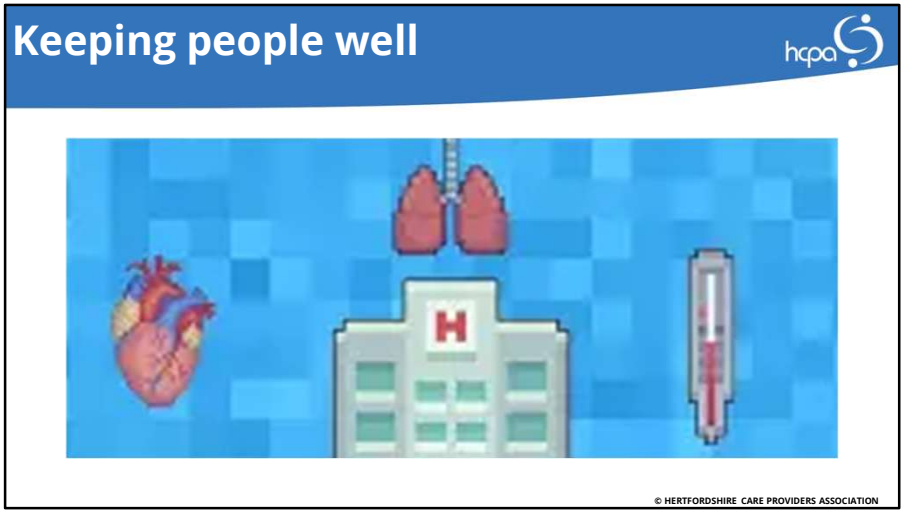


Preparing for winter: A checklist for healthcare professionals caring for older people

Published and last updated **06 August 2025**
British Geriatrics Society

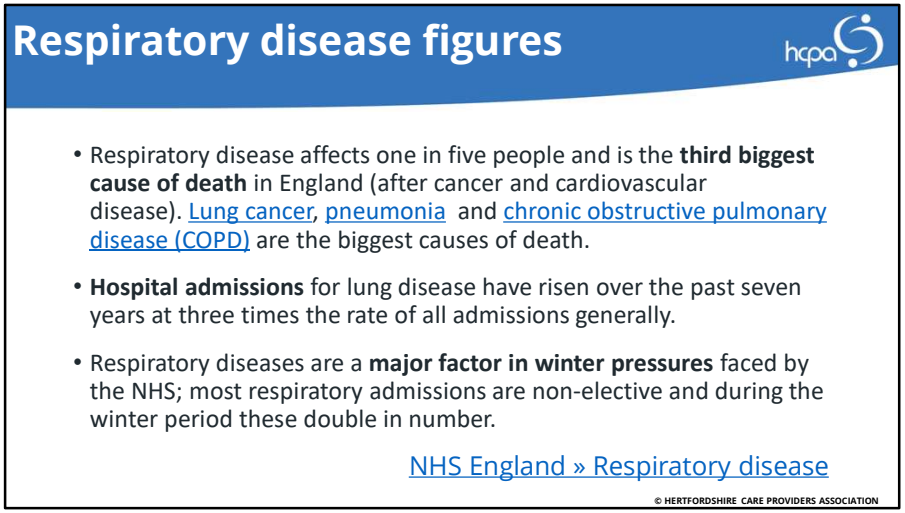
Winter in the NHS is tough. This checklist is intended to support BGS members across the system to make changes to ensure that winter is a little easier for older people this year. Not everyone will be able to do everything on this list. But we hope that it helps healthcare professionals to think about what they can do to make this winter a bit better for their older patients.

- And in addition the British Geriatrics Society have developed a checklist – see the link here, which may help you to consider other, wider issues, such as charities that will provide support to keep homes warm, help with shopping upon discharge from hospital, and support older people who can't get out if it's icy, or
- Do they have family / friends who would look in on them in winter?
- And Are they claiming all the benefits they are entitled to? To name a few



So, it goes without saying that preventing hospital admissions means we want to keep people as well as possible.

And keeping the people we care for people we care for **well**, involves knowing how to ascertain how well/unwell a person is, so we are going to cover that a bit later on
But first, it's important that staff have at least some understanding of what infections we are trying to prevent …… the main one being…… respiratory infections



The figures show that

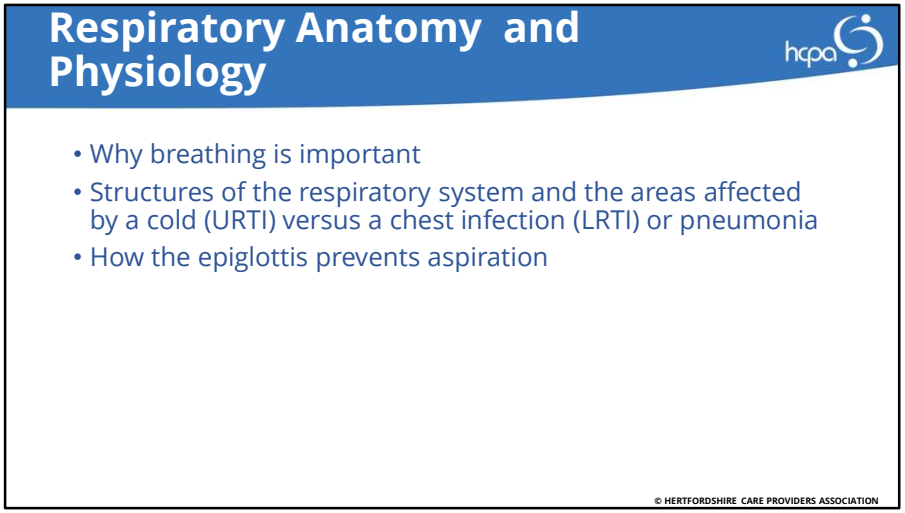
Respiratory disease affects one in five people and is the **third biggest cause of death** in England (after cancer and cardiovascular disease). Lung cancer, pneumonia and chronic obstructive pulmonary disease (COPD) are the biggest causes of death.

Hospital admissions for lung disease have risen over the past seven years at three times the rate of all admissions generally.

So, respiratory diseases are a **major factor in winter pressures** faced by the NHS; most respiratory admissions are non-elective and during the winter period these double in number.

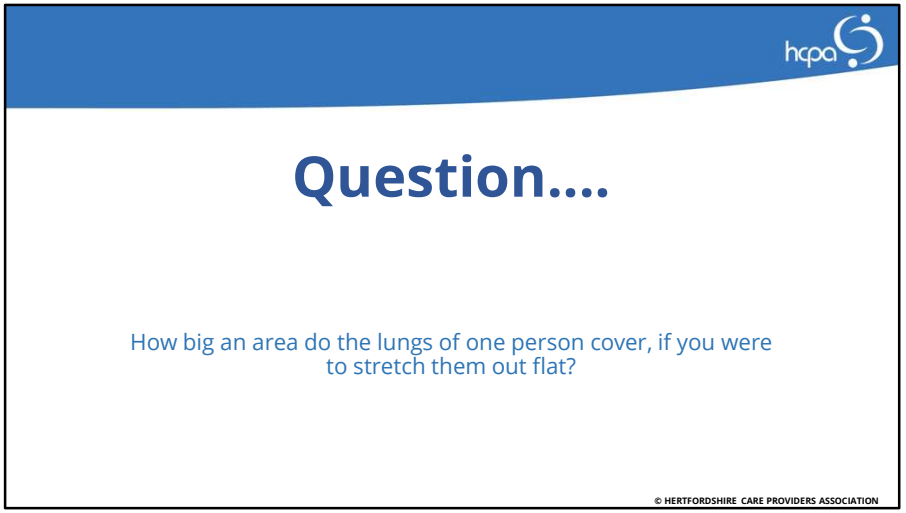
They account for a large number of emergency hospital admissions, as do falls, which we will talk about later

Of course, the presence of co-morbidities with respiratory conditions significantly impacts the quality of life, exercise capacity, and the use of health services….And Chronic respiratory diseases like COPD often co-occur with other conditions such as mood disorders, osteoporosis, diabetes, peripheral arterial disease, and heart failure. These comorbidities are likely to lead to an increase in hospital admissions, a higher risk of mortality and a marked increase in healthcare costs.



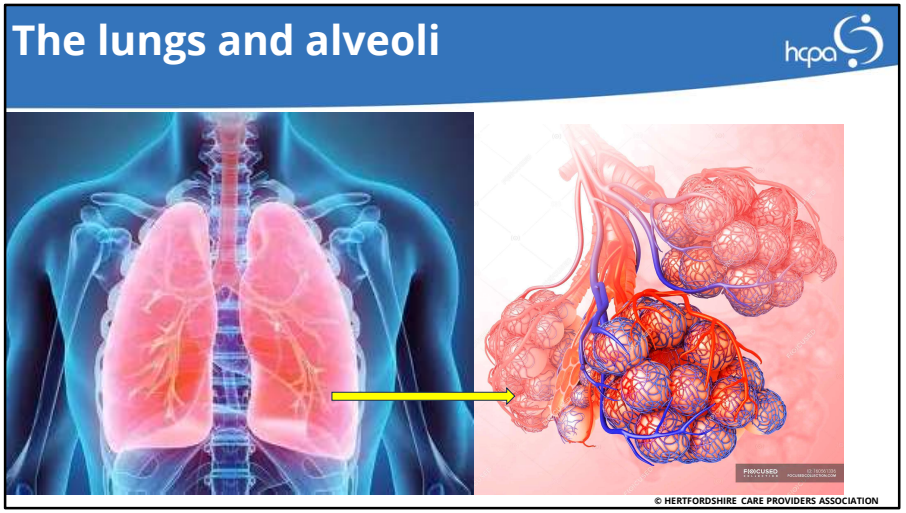
So on the 1 day course we go into detail about the Anatomy and Physiology of the Respiratory system
And

- Why breathing is important
- The Structures of the respiratory system and the areas affected by a cold (URTI) versus a chest infection (LRTI) or pneumonia
- How the epiglottis prevents aspiration – it's really interesting because when I teach this is Managing the acutely unwell person on the Enabling and Mobility Champion Course that teach for HCPA, practically every learner remembers what the epiglottis is, and also what the alveoli are! I can almost hear you nodding right now cos so do you! I have no idea why this is other than because these words were brilliantly explained by every single school teacher in the world….. Or because you all found these things more interesting than many other things you were taught! I do anyway!!!! And we are now gonna get you to participate in a slido about a very interesting fact about the lungs



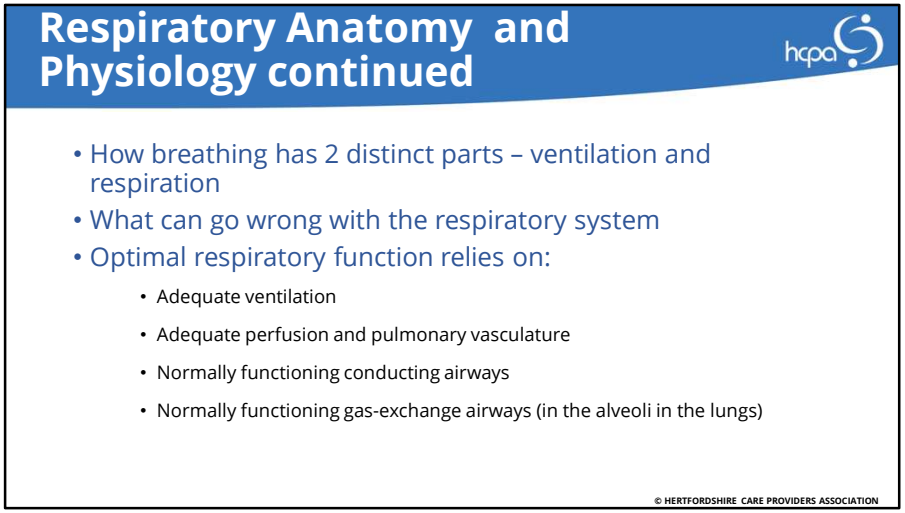
Most Common answer slido???

How big an area do the lungs of one person cover, if you were to stretch them out flat?



So who got it right?….
Most people say the size of a desk or slightly bigger but…. Actually it is much bigger……depending on your size, it can be anything from the size of a tennis court to the size of a football pitch. And you can see from this picture, that that is because there are millions of alveoli, that when spread out form a HUGE area. This area is completely covered in tiny capillaries, so the oxygen from the air we breathe into the lungs, and into the inside the alveoli diffuses through the walls of the alveoli and through the capillary wall into the blood, so that the oxygen can be taken to the rest of the cells of the body.

So it is no wonder we can <u>all</u> (when we are well of course) maintain oxygen saturations of 97-100% every minute of every day, regardless of our levels of exertion (obviously we use more oxygen when we are exercising), AND regardless of the fact that there are many of us in the world *and* when oxygen only makes up a fifth of the air we breathe! It's a good job trees use up the carbon dioxide we breathe out and that they give out oxygen…… isn't it?! And definitely a reason to plant more trees!



So, we also talk about how there are 2 parts to breathing :

- ventilation (the mechanics of getting the air in and out, if you like) and
- respiration (how we get the oxygen into our blood and the Carbon dioxide out of our blood, back into the alveoli, ready to be breathed out) are 2 parts of breathing and how they both work and then:

And also we discuss what can go wrong with the respiratory system, including

- With the neural control to the respiratory muscles, as in spinal cord injury, brain injury, Stroke or conditions such as Multiple Sclerosis
- With the muscles themselves as in Neuromuscular disease such as MND ,
- or the when the muscles aren't able to function effectively, such as in obesity, or compromised postures such as kyphosis and scoliosis,
- where mechanics are altered in conditions such as COPD and asthma,
- or when the person is fatigued or simply immobile and therefore does not take deep enough breaths
- And With the lung tissue and the gas exchange airways like in COPD, or interstitial lung disease

- And that just shows that optimal respiratory function relies on:

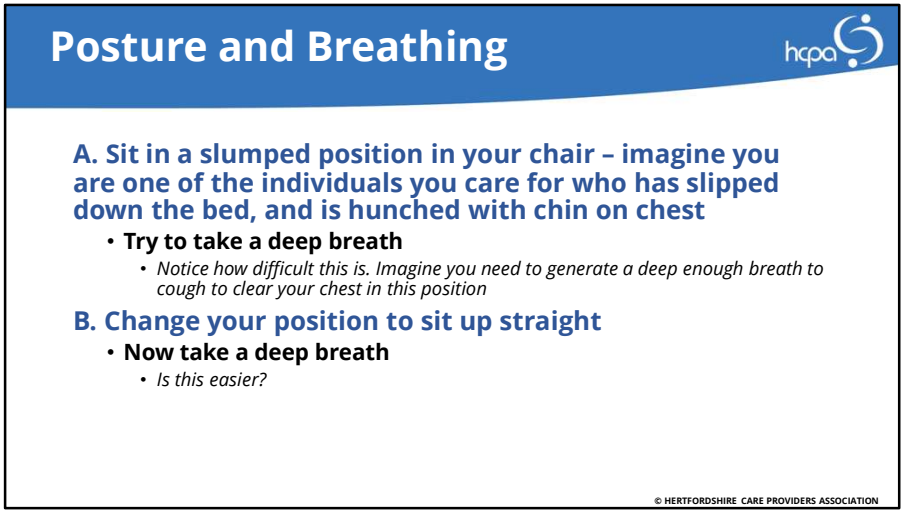
  Adequate ventilation

  Adequate perfusion (the ability of the blood to flow in the capillaries) and the pulmonary vasculature (the arteries that transport blood between the heart and the lungs)

  Normally functioning conducting airways

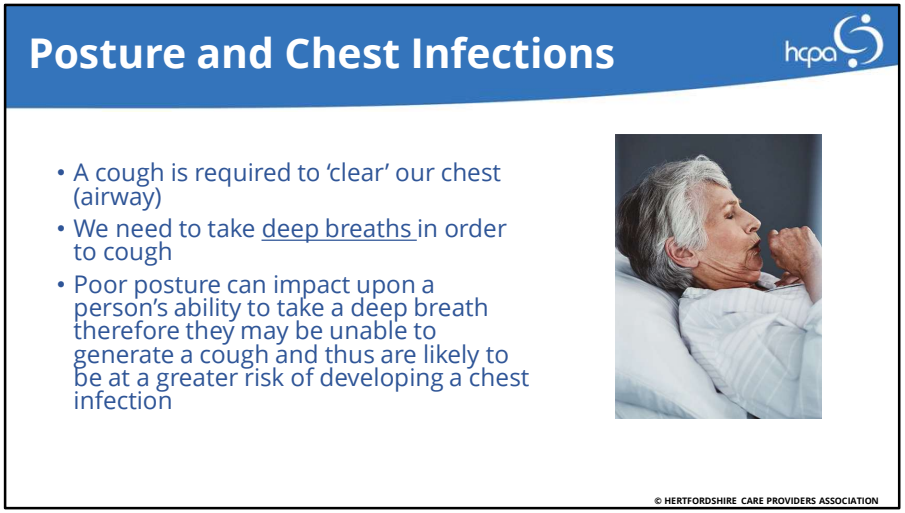
  And Normally functioning gas-exchange airways (in the alveoli in the lungs)

- But for now we are going to talk about posture and breathing



So I want you all to …..
Sit in a slumped position in your chair – imagine you are one of the individuals you care for who has slipped down the bed, and is hunched with chin on chest
Try to take a deep breath
Notice how difficult this is. Imagine you need to generate a deep enough breath to cough to clear your chest in this position
Is this difficult? It is!

B. Change your position to sit up straight
Now take a deep breath
Is this easier?
YES! It is much easier when we are sitting up straight

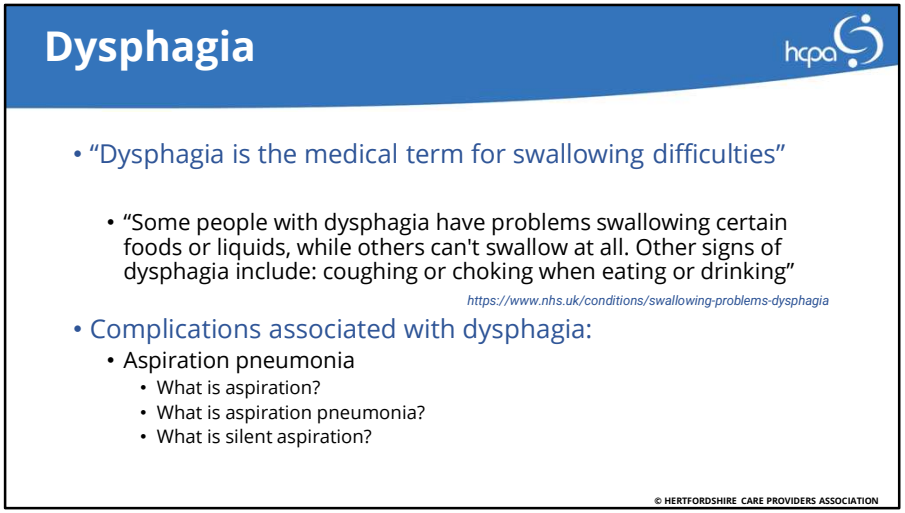


AND……We need to take a deep breath in order to cough and clear our chest, and if we can't do this …. THIS LEADS TO CHEST INFECTIONS

And as you have just witnessed first hand, poor posture can impact upon a person's ability to take a deep breath therefore they may be unable to generate a cough and thus are likely to be at a greater risk of developing a chest infection, because they can't clear the normal secretions, and they can't clear anything they aspirate, so this can enter the lungs rather than being coughed out

Coughing really is a fundamental function in our survival! And it is particularly important for people who are not moving much, or who are in bed, as *moving* means we take deep breaths. From this point of view, it is clear why Therapists will say that getting a person to roll in bed for their personal care and to move as much as they can, is vital for them to have a chance of taking a deeper breath!

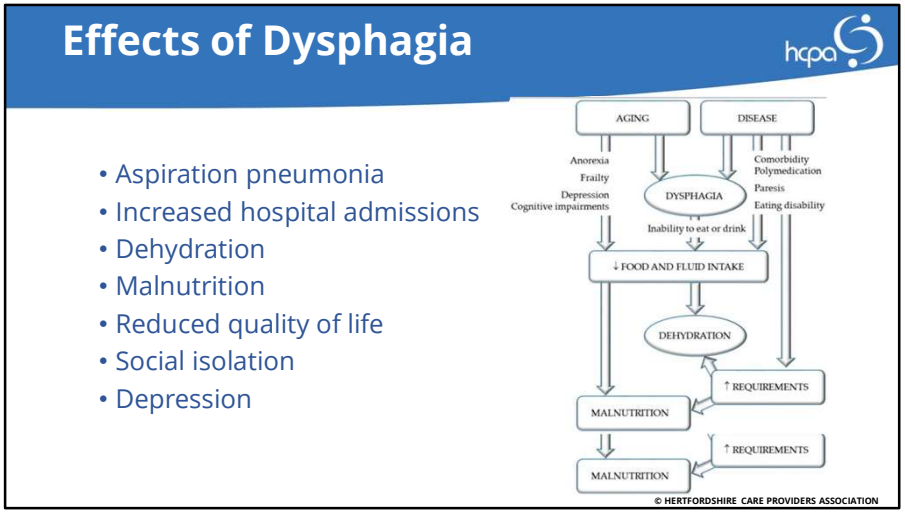
And some of you may be aware that the most common cause of premature death in a person with a learning disability is a chest infection and Public Health England have even recognised the direct link with posture in this group of people…. But it is actually similar for everyone, posture affects breathing, among many other things.



So, let's talk about Dysphagia.
I am sure you are aware that dysphagia is a huge problem in the care sector
First of all just to clarify the difference between **dysphagia** - which means difficulty swallowing –as it says on the slide, and **dysphasia** – which means difficulty with speech. Many health professionals and researchers use the term Aphasia as opposed to dyphasia

For now we are talking about DYSHAGIA and the associated complications
So a person with Dysphagia has inadequate swallow, or saliva and secretion management – just to say – we produce 2 pints of saliva per day, so this needs to be swallowed , …. Or dribbled out…. I had a person on training the other day who was convinced that the person had excess saliva production, as it looks like quite a lot if the person can't swallow it!
However, if it doesn't dribble out, an impaired swallow, with an inability to generate a cough, means? ….. Yes! you have guessed it! Aspiration! Where the epiglottis is not doing a good enough job of closing over the airway to prevent the fluid/saliva/food entering the airway/lungs. And you may not notice this, because it may be what is known as Silent Aspiration, where there is no cough triggered, which of course means there is minimal chance of the airway being cleared!, so silent aspiration presents an

even higher risk of Aspiration Pneumonia, that is where the fluid/saliva/food has started to grow bacteria causing an infection in the lungs. At this point it is important to note then, that in the absence of coughing when eating or drinking, the first thing you may notice when a person has dysphagia is when they have developed aspiration pneumonia and are showing signs of a chest infection….. which is what we will focus on for the next part of the session.



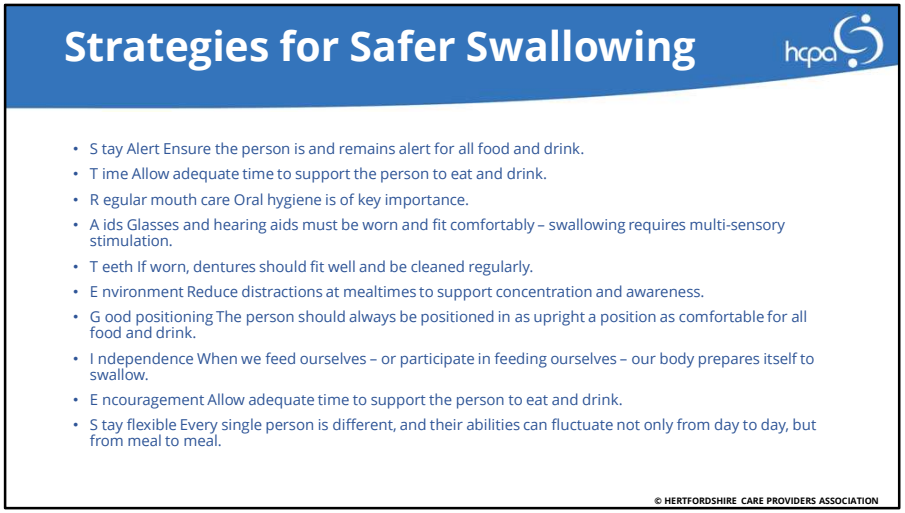
Of course, as well as Aspiration pneumonia and Increased hospital admissions
The effects of Dysphagia include:
Dehydration
Malnutrition
Reduced quality of life
Social isolation
Depression
And a healthy person swallows about 1,000 to 2,000 times a day. And if there is a problem with swallowing the adaptation of food/drink, for example, balanced soft food or thickened liquids, may be needed to avoid aspiration. For more information about appropriate referrals, I urge you to watch the recent webinar on Dysphagia by the Lizzie Smith, Advanced Speech and Language Therapist, which is on the HCPA website

It is important to note that thickened liquids and adapted food consistencies are only a start to increase the quality of life of dysphagic patients, as they work as a motivation tool and prepare them to eventually swallow food and fluid with normal consistency.
Given the disadvantages of the use of thickened fluids and adapted food consistencies (which may lead to insufficient nutritional and fluid intake), it is important to control the progression of the dysphagia by regularly reviewing the food/drink consistency, and so protecting the person from being restricted to a certain consistency for too long

And of course, dehydration is especially common in the elderly, and Dehydration is one of the ten most frequent diagnoses for hospital admission in older adults

Dehydration is also associated with poor health outcomes such as increased mortality.
Common complications associated with dehydration include low blood pressure, weakness, dizziness and increased risk of falls. Poorly hydrated individuals are more likely to develop pressure sores and skin conditions. Many older people are reluctant to drink to avoid the need to go to the toilet, particularly at night, but in fact restriction of overall fluid intake does not reduce urinary incontinence frequency or severity, in fact it may increase the risk of a UTI.
For people are reluctant to drink, fruit and ice lollies can also provide necessary fluids.

Hydration Information - British Nutrition Foundation



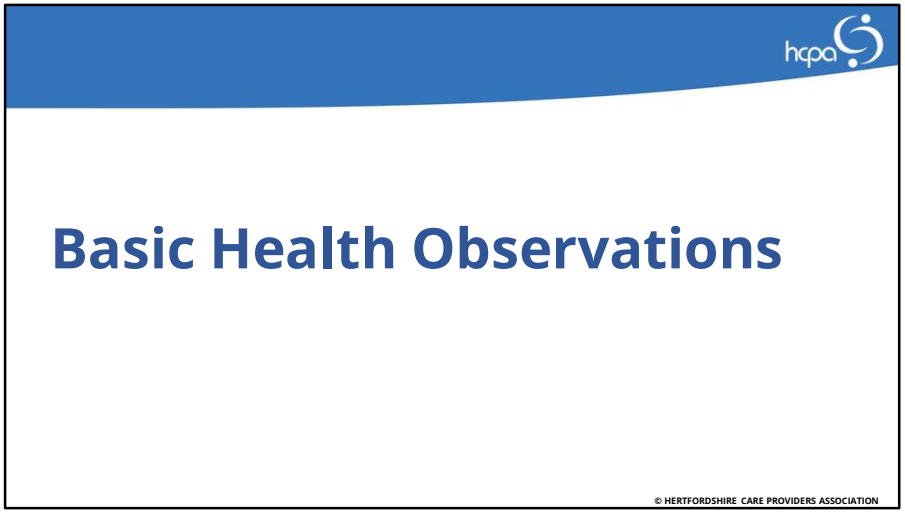
So there are many things you can do to reduce the risks associated with Dysphagia…. The following is taken from Doncaster, Rotherham and South Humber NHS Trust, as it is really good and gives some great ideas in a really clear format, with the acronym STRATEGIES:
DP8723Strategiesforsafeswallowingleaflet07.21.pdf

So S is for Stay Alert. Ensure the person is and remains alert for all food and drink. Food or drink should not be given to individuals in an altered state of consciousness. This includes when they are sleepy and unable to be sufficiently roused.
T is for Time, Allow adequate time to support the person to eat and drink. Support them to ensure each mouthful has gone before they take (or you offer) another.
R is for Regular mouth care Oral hygiene is of key importance. People with eating and drinking difficulty often have poor oral hygiene, which can lead to a greater incidence of chest infections. Why?… because if the saliva that is aspirated has bacteria in it, rather than being fresh and clean, then that bacteria goes into the lungs causing a Chest infection or pneumonia…….. Ensure the mouth is clean and free from residue following eating and drinking and follow a regular mouth care routine
A is for aids Glasses and hearing aids must be worn and fit comfortably – swallowing requires multi-sensory stimulation.
T is for teeth If worn, dentures should fit well and be cleaned regularly. If dentures are missing or broken, then temporarily providing easier diet options

may help. Toothache, oral thrush or a sore mouth should be reviewed by the GP or dentist.
E is for Environment Reduce distractions at mealtimes to support concentration and awareness. This could include turning off the television and reducing chat or moving to a different location.
G is for Good positioning The person should always be positioned in as upright a position as comfortable for all food and drink. This helps the person control the food and fluid that is in their mouth. The person should remain optimally positioned for at least 30 minutes after a meal to avoid reflux – this is where stomach contents travel back up towards the throat and can cause coughing.
I is for Independence When we feed ourselves – or participate in feeding ourselves – our body prepares itself to swallow. It is important to support individuals to feed themselves and maintain functional independence WHEREVER POSSIBLE. Vary the amount of assistance according to individual need, for example verbal prompts, loading spoon, and hand over hand feeding. Would changing cutlery help? Remember, unless advised otherwise, spouts, straws and bottles should be avoided. Use an open cup instead.
E is for Encouragement Encourage appropriate pacing and encourage fast eaters who are at risk of over filling their mouths to slow down.
S is for Stay flexible Every single person is different, and their abilities can fluctuate not only from day to day, but from meal to meal. These changes can be subtle. It is vital to be flexible in responding to these abilities and needs in 'real time'. Fatigue, distress, changes to mood, changes to medication or an acute illness can impact a person's ability to eat and/ or drink safely.

- Frequent coughing or choking while eating or drinking.
- Wet/gurgly voice quality during meals
- Change in breathing, e.g. shortness of breath or increased effort to breathe
- Recurrent throat clearing
- Difficulty chewing or moving food around the mouth (despite adequate dentition)
- Residue in the mouth or cheeks following swallowing
- Leakage of food/drink from the lips
- Recurrent chest infections and unexplained weight loss may also be a sign of dysphagia.

Royal Collage of SLT (2020) document may also be useful
supporting-people-with-eating-drinking-and-swallowing-difficulties.pdf



So the next section is about Basic Health Observations

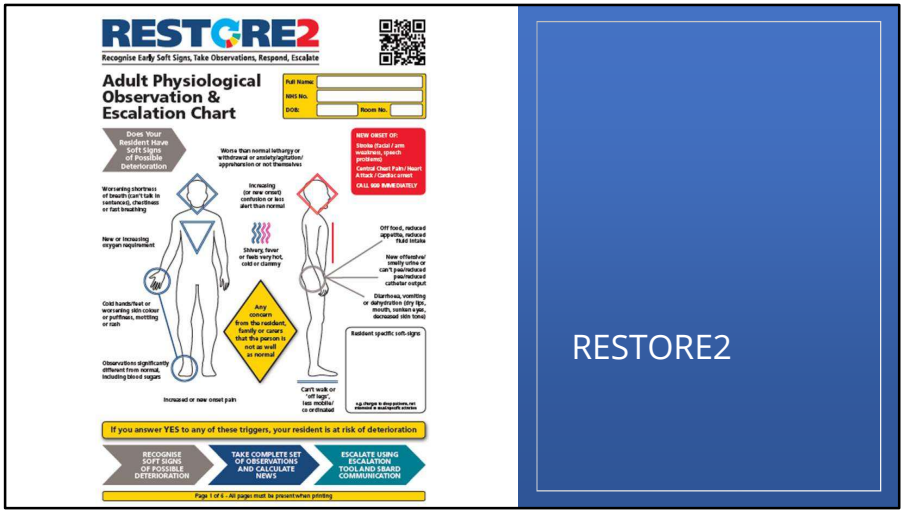
And one of the activities that we get the delegates to do on face to face training (in groups) is to come up with the signs they ALREADY NOTICE, when a person starts to become unwell
Which are often the things that can get overlooked!
In 2 groups, I give them a scenario each,
1. A person who is in respiratory distress (i.e. having difficulty breathing or who has a chest infection).
And
2. A person who has an untreated urinary tract infection.

And what they might see, hear, feel (on the person), and what they might smell.

Such as for the person who has a suspected chest infection, they might see: simply a change in usual behaviour – such as the person being less chatty or a bit 'off colour' or 'just not quite themselves', they may notice that there is a change in the person's level of confusion compared to usual, they may notice increased work (effort) of breathing with increased muscle activity such as shoulder elevation, they might see coughing, a change in the person's usual phlegm (a change in colour, amount or consistency

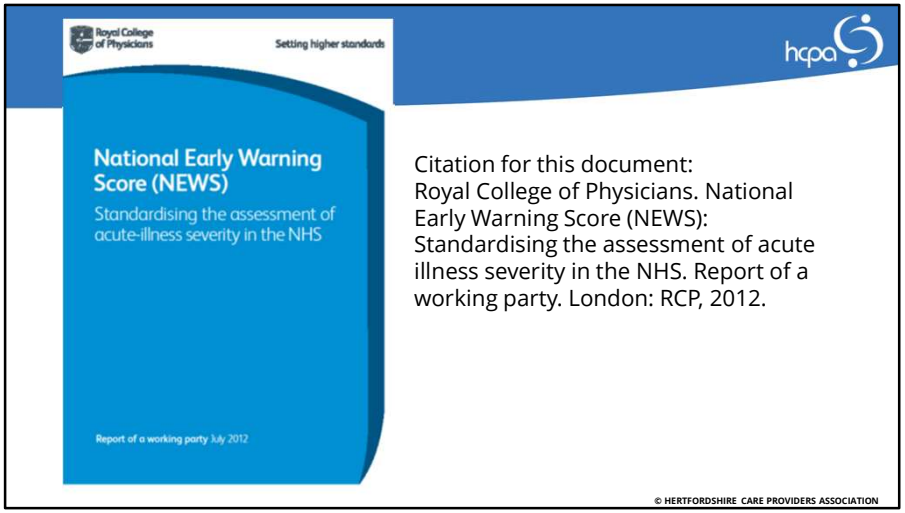
from what is ‘normal’ for that person), they may notice cyanosis (central cyanosis being blueness or paleness round the lips, peripheral being of the fingertips or toes (the peripheries), they might notice that the person isn’t able to walk as far as usual, or that they are feeling unusually fatigued, or anxious or off their food…….etc etc.
The point is that it is often very obvious to care staff when a person starts to become unwell, but they are not always confident enough to report this as soon as they notice that there is something wrong as they may not trust their hunch. And of course the better they know the person. The more more likely they are to notice subtle changes.

Of course there are different things that may indicate a UTI, the smell being one of the most obvious….. And to me it is astounding that even if we have only smelt a UTI once, we all know when we smell one again…. And that is weird, because all UTIs smell different, and smell different for different people !
But of course there are crossovers with a chest infection and indeed with any infection – such as the changes in behaviour, levels of confusion and fatigue to name a few.
AND of course there are likely to be changes in their vital signs too.

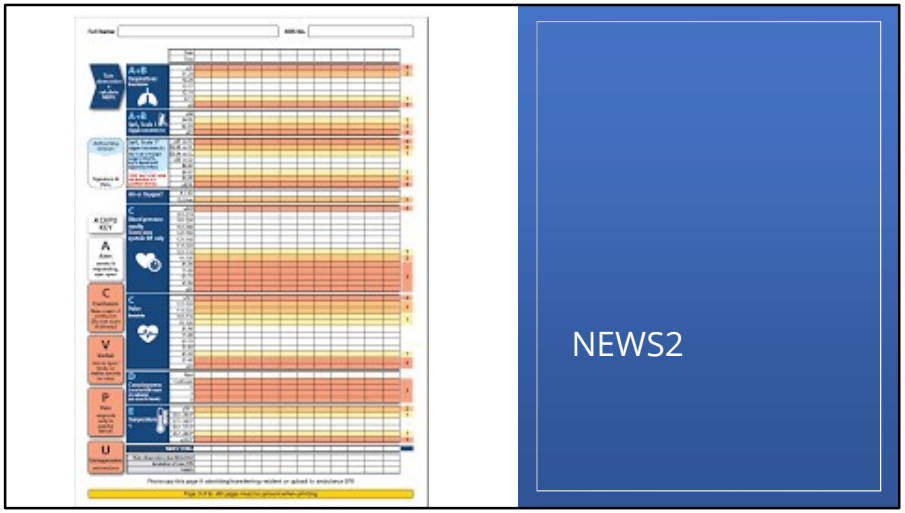


And this is the document that you need to be using to record these signs, and as you can see there are some suggestion that you would just circle if they were the signs for that person, and there is a box where you need to record anything else that is applicable for that person – I have to say you need to write small as the box is tiny!

The RESTORE2™ tool was developed by **NHS West Hampshire Clinical Commissioning Group (CCG**) to support homes and health professionals to recognise when the person they are caring for may be deteriorating or at risk of physical deterioration.
And this form also asks for vital signs readings so we can calculate a NEWS2 score…..
which is what we are going onto next……



In 2012 the Royal College of Physicians developed the National Early Warning System (NEWS) which standardises the assessment of an acutely unwell person. This was updated in 2017, and again in 2019, and it has also been adapted for the social care sector, so that the escalation categories make sense…. ie calling the GP, rather than calling a Registrar in a hospital

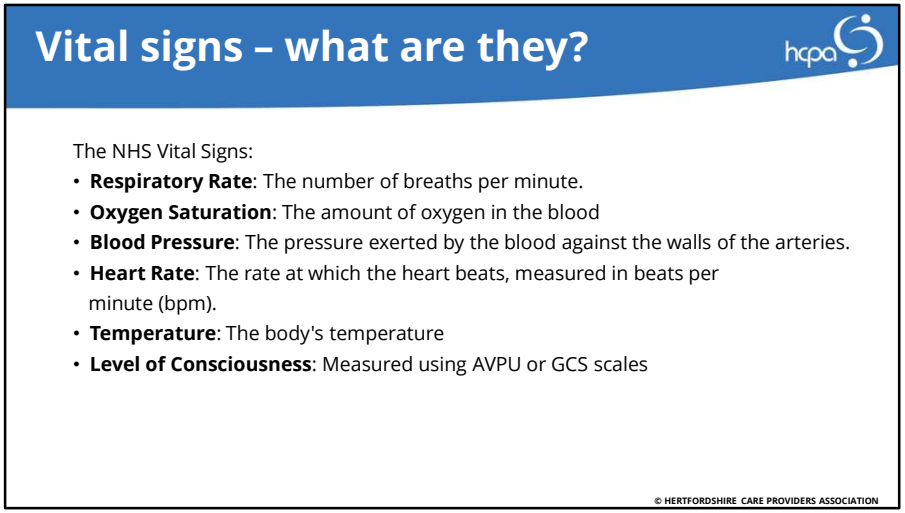


.
And this is the form….. Which is *part* of the RESTORE2 document…. And which I am sure looks very familiar as you have all seen in hospital wards for every patient.
And You have to record all vital signs readings down one column, with the date and time at the top, moving onto the next column the next time you do them.
And as you can see the score for each reading can be seen down the right hand side

National Early Warning Scores (NEWS2)

Physiological parameter	Score 3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO_2 Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO_2 Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

I am just going to briefly show you this slide, which we will come back to, so that you know what I am referring to when I talk about the NEWS2 scoring – it's just easier to see when I am teaching and in fact you may have noticed the Community Therapists all have it on the back of their lanyards



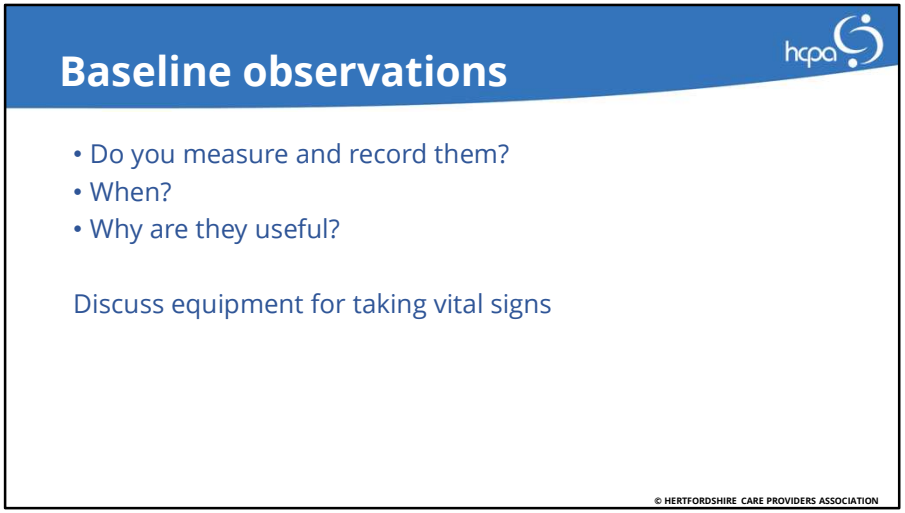
So, what are Vital Signs?…..I am sure you know that when we talk about Vital Signs (which we also tend to call Basic Health Observations) we mean respiratory rate, oxygen saturations blood pressure, pulse or heart rate, temperature, and level of consciousness

And these can give us vital information about a patient's health and are essential in detecting any early signs of deterioration.

Changes in vital signs can indicate deteriorating health in any person

- Heart failure
- Infection
- Acute respiratory problems
- Shock
- Pulmonary embolism
- Pneumonia
- Dehydration
- Other serious acute illness

And as I sure you are all aware

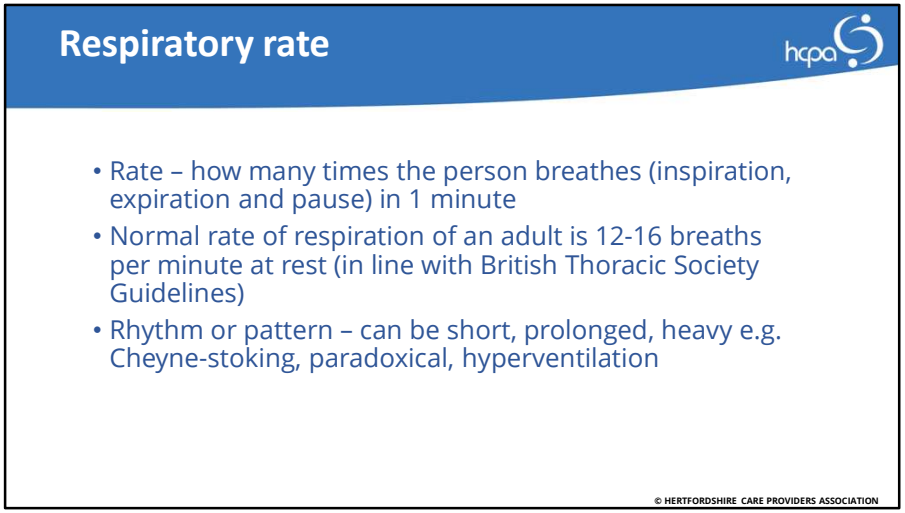


And in order to be aware of a person's NORMAL readings – otherwise known as Baseline Observations or Baseline Obs, - we need to have a record of what their vital signs are when they are well, so we always advise taking these:
On adx/ or first assessment and
On a monthly basis as well as of course when there are signs that the person may be unwell, such as when they are showing any of the soft signs we talked about earlier.
And we need these so that we can determine any changes that may indicate that the person's health is deteriorating – and we all know how quickly that can happen!

Now, before COVID, when I taught Basic Health Observations, people who worked in Nursing Homes said that it was only the nurses who should take vital signs,
Residential homes said that it wasn't appropriate for them to take vital signs as they aren't medically trained, but I have to say that this has **completely** changed since Covid, since everyone became familiar with taking oxygen saturations and the other observations, as this was one of the ways in which we could know how unwell a person was, and whether to send them to hospital wasn't it? And this was the case for yourselves, your own family members, as well as the people in your care.

So whereas many of you did not have, or did not intend to get the equipment needed for taking these observations, now most of you have that equipment, and are familiar with how to use it. And if you don't you definitely should be getting this equipment, and I will clarify what this is later

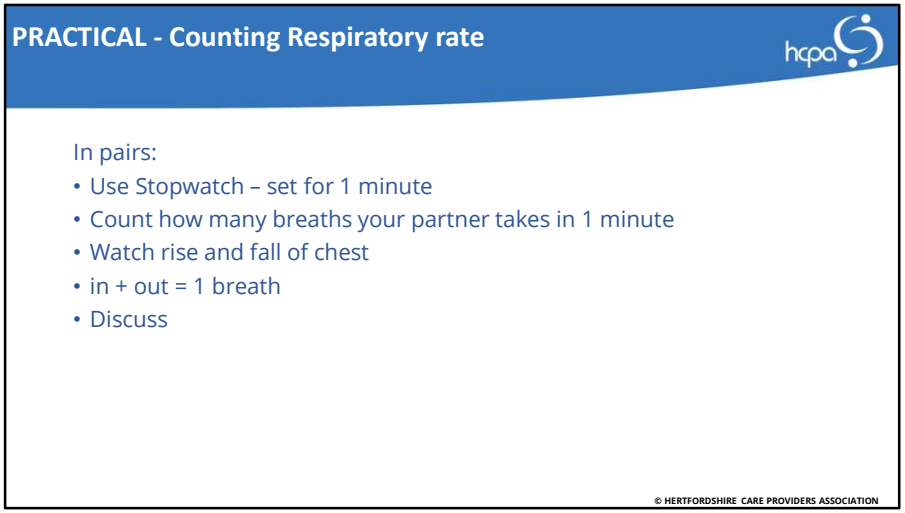
Now, on the one day 'Preventing and Managing Deterioration During Winter including Basic Health Observations' course, I will be teaching your staff about each of the vital signs, and normal values, as well as how to use each piece of equipment.



For example for Respiratory Rate, which in terms of equipment, only requires a stopwatch/timer – and most people use their phone/smartwatch. And when someone is well, we would expect their Respiratory rate to be around 12-16 breaths per minute. This is a brief version but on longer training

I also talk about different patterns of breathing like Cheyne-Stokes, which is an irregular pattern of breathing consisting of a period of long, laboured breathing followed by a period of shallow, rapid breathing and moments of no breathing at all, and this may be a sign of a serious lung, brain, or circulatory problem like a pulmonary oedema, stroke, or heart failure. And as I am sure you all know… even if you didn't know the name for it, it also commonly occurs as a person approaches the end of life.

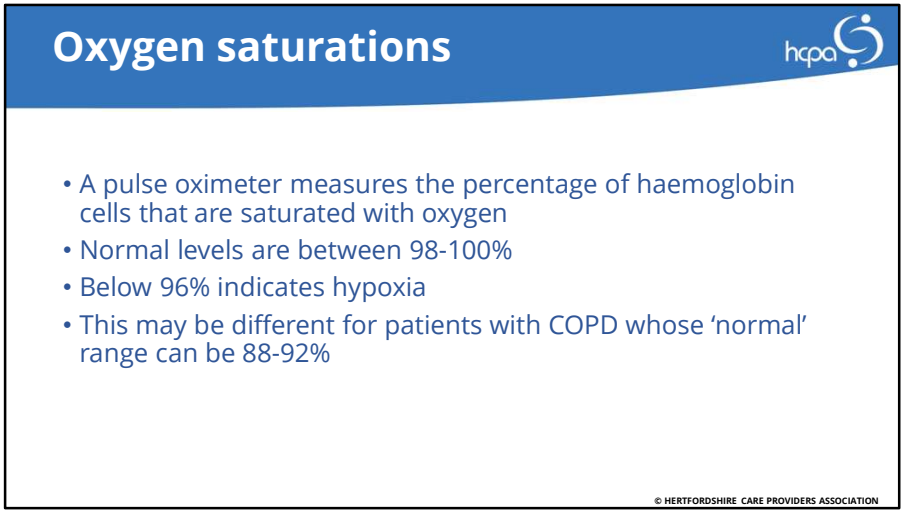
Paradoxical breathing btw occurs when your diaphragm moves in the opposite direction than it should when a person is inhaling and exhaling and indicates potential respiratory distress or dysfunction.



So I get them to do this on each other, and to discuss the fact that it is……
Not always easy to see quiet breathing
They can try hand on shoulder or chest or sides of thorax
We also discuss capacity and gaining consent – remembering that people may breathe differently if they are too aware of their breathing. You only have to imagine when you are listening to the chest with a stethoscope, as I have done many times, when you ask a person to breathe normally, they go ……..**eeeehooooor eeeeehooooor,** which is hilarious but very unhelpful!
A tip here is to (having gained consent where appropriate of course) to 'pretend' you are taking someone's heart rate, and to rest their arm against their chest so that you can feel, and count, the rise and fall of their chest as they breathe

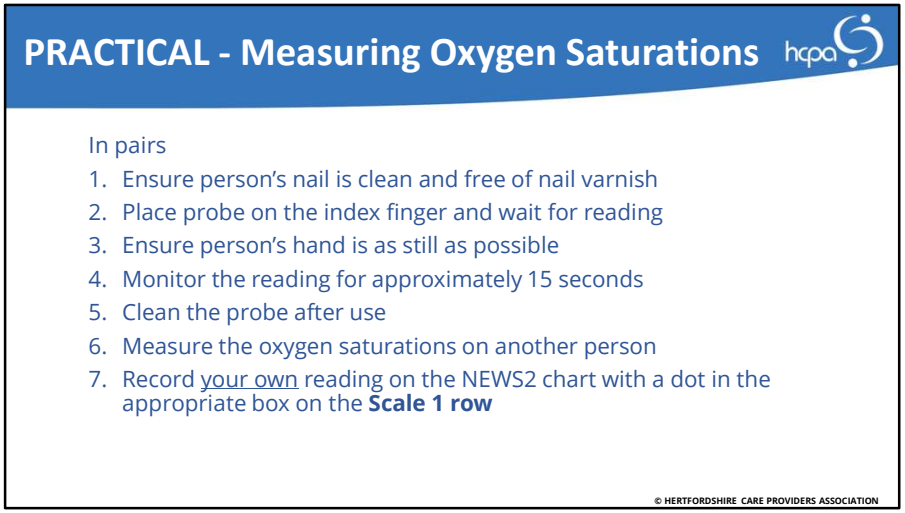
And when they have their reading, I get the staff on training to put a dot for their own reading in the relevant box on the NEWS2 form

Next is oxygen saturations, that is….the level of oxygen in our tissues (oxygen saturation levels), which is measured using a pulse oximeter (which as you can see come in many shapes and sizes – other names being an oxygen saturations monitor, a sats monitor, Blood Oxygen Monitor, Oximetry Device, finger oximeter……. the one you will be most familiar with is the small one. Mostly they go on your finger but they can be used on the toe and you can also get a special attachment for the ear also, if needed.



So a pulse oximeter is a non- invasive device that measures the oxygen saturation level in your blood by shining light through your skin (your finger, toe or ear) and analysing how much light is absorbed.
Normal levels are between 98-100% - which as we said before is amazing!
Below 96% indicates hypoxia (not enough oxygen in the tissues).

And, although this range may be different for patients with COPD whose 'normal' range can be 88-92% - this 'normal' MUST be specified by a qualified Health Professional,,,, meaning you can't just decide that yourself….I will explain more in a second



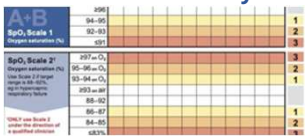
So here are the tips for the practical session:

1. Ensure person's nail is clean and free of nail varnish as the presence of nail polish can interfere with their accuracy, as the pigments in polish may absorb or scatter the light, disrupting the device's ability to detect oxygen levels
2. Place probe on the index finger and wait for reading
3. Ensure person's hand is as still as possible, as excessive moving can cause the pulse oximeter to move around or to slip off, or can disrupt the sensor's ability to pick up an accurate reading , as is says here.
4. Monitor the reading for approximately 15 seconds
5. Clean the probe after use in line with infection control, with an alcohol wipe or gel
6. Also just to be aware that if the person appears well and the sats reading is low, it may be the batteries, so try it on yourself first, and obviously change the batteries if needed

And then I get the staff on training to put a dot for their own reading in the relevant box on the NEWS2 form

Sp02 - Scale 1 / Scale 2

- Scale 1 is for everyone EXCEPT if it is written in the care plan, after being decided by a Clinician that the person requires Scale 2
- Scale 2 is for people who tend to retain carbon dioxide (C02), because if they do, their target oxygen saturations will likely be much lower - 88-92%
- **DO NOT USE Scale 2 unless indicated by a Clinician**



- **Cross this row out instead**

And just to explain on the NEWS2 form, there are 2 scales for Oxygen saturations

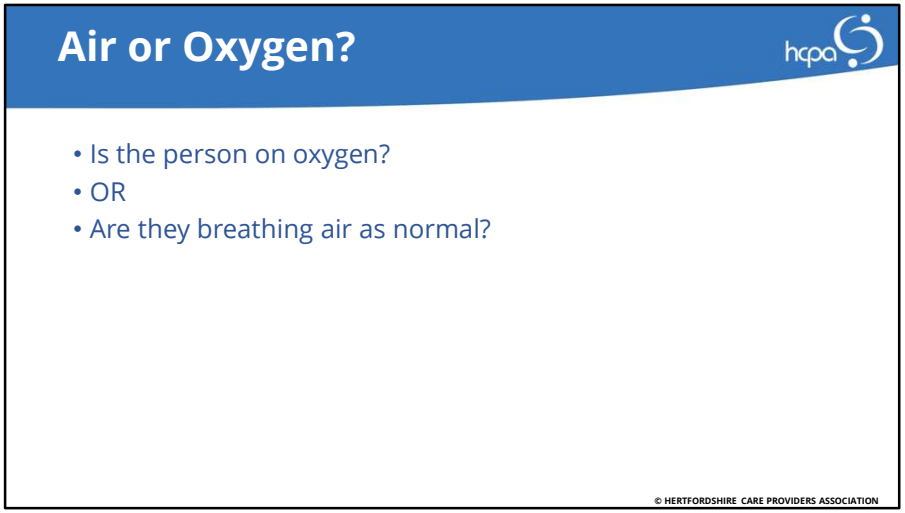
Scale 1 is for everyone, EXCEPT if it is written in the care plan, after being decided by a Clinician that the person requires Scale 2

Scale 2 is for people who tend to retain carbon dioxide (C02), because if they do, their target oxygen saturations will likely be much lower - 88-92%

And, this will most likely be those people with COPD whose 'normal' range can be 88-92%, as we mentioned just now. I don't have time to explain why but it is to do with the body getting used to high levels of carbon dioxide and higher levels of oxygen can cause the person to stop breathing.

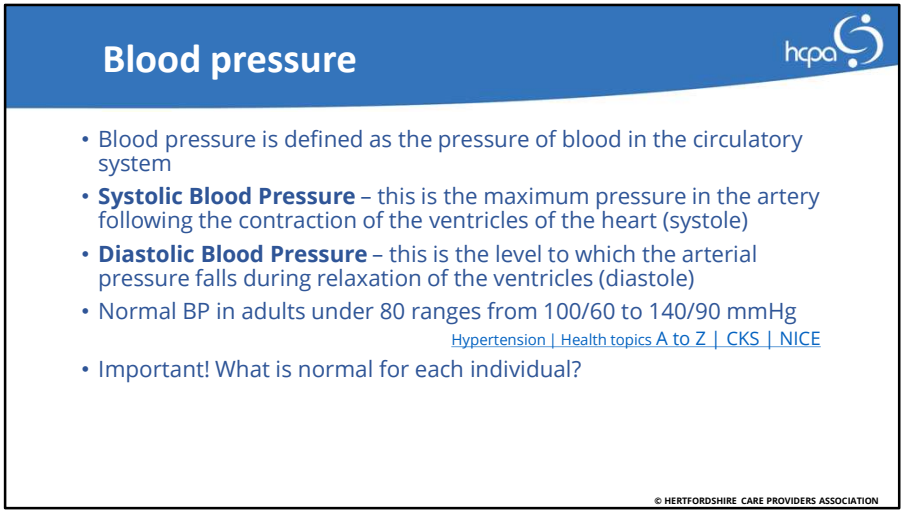
So very firmly……**DO NOT USE Scale 2 unless indicated by a Clinician.**

So in most cases, you need to Cross out the Scale 2 row



And then
Is the person on oxygen?
OR
Are they breathing air as normal?

And I get the staff on training to put a dot for their themselves in the relevant box on the NEWS2 form … I hope this is making sense…… if not, it will all become clear, don't worry!



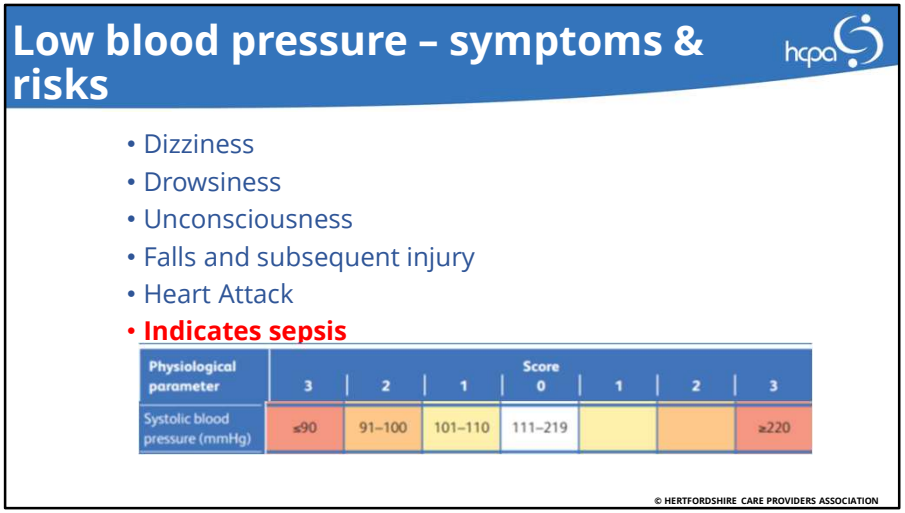
So on to blood pressure.
Blood pressure is defined as the pressure of blood in the circulatory system
Systolic Blood Pressure – this is the maximum pressure in the artery following the contraction of the ventricles of the heart- the top figure
Diastolic Blood Pressure – this is arterial pressure during relaxation of the ventricles – the bottom figure
Normal BP in adults ranges from 100/60 to 140/90 mmHg

And of course in an acutely unwell person, what is also important is what is normal for them when they are well.

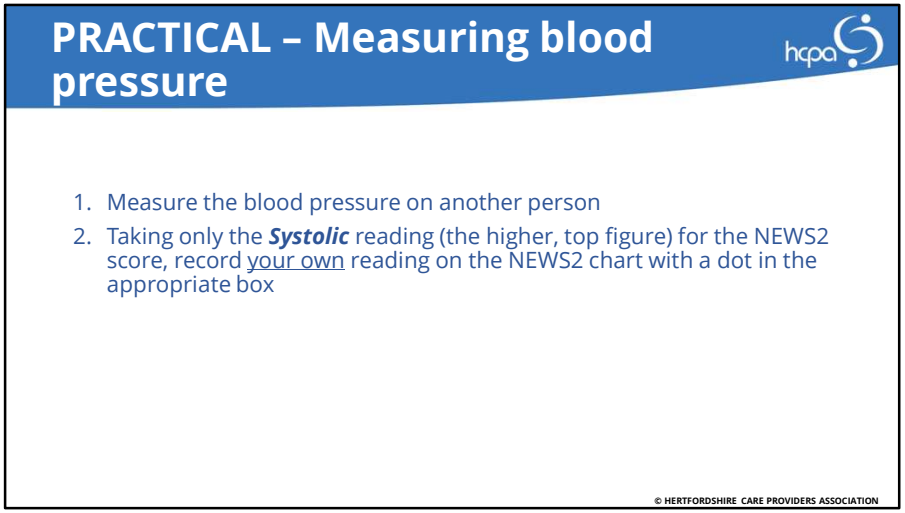
And when you look at where to put the reading on the NEWS2 form, you will see that only the top, higher, systolic reading is recorded for an acutely unwell person.
This is because the diastolic reading doesn't add any extra information in acute deterioration of a person.
You will also notice the reading *only* gets a score when the BP is high **if** the systolic reading is more than or equal to

220, and the reason for this is that
hypertension only becomes acutely of concern when the blood pressure is so high as to be imminently a risk for haemorrhage or stroke, or in the presence of e.g. heart failure or acute heart attack, whereas
NEWS is a tool for detecting, quantifying and escalating changes in the **acute**
status of a patient.
So unless the person has a BP over 180 /120 with signs of heart failure, chest pain, palpitations, pallor, abdominal pain, or diaphoresis (excessive sweating for no apparent reason).
For all other people with hypertension, a higher than normal BP is likely to
be a contributing factor to cardiovascular disease over a long period of time,
and for this, rather than calling 999, management should be:
Offering lifestyle advice, including advice on diet and exercise, stress management, alcohol consumption, and smoking cessation (if applicable).
Considering the need for antihypertensive drug treatment or a change in current medication, so referring them for a non-urgent review by the GP

And I have included the link so that you can read more if you want to Hypertension | Health topics A to Z | CKS | NICE

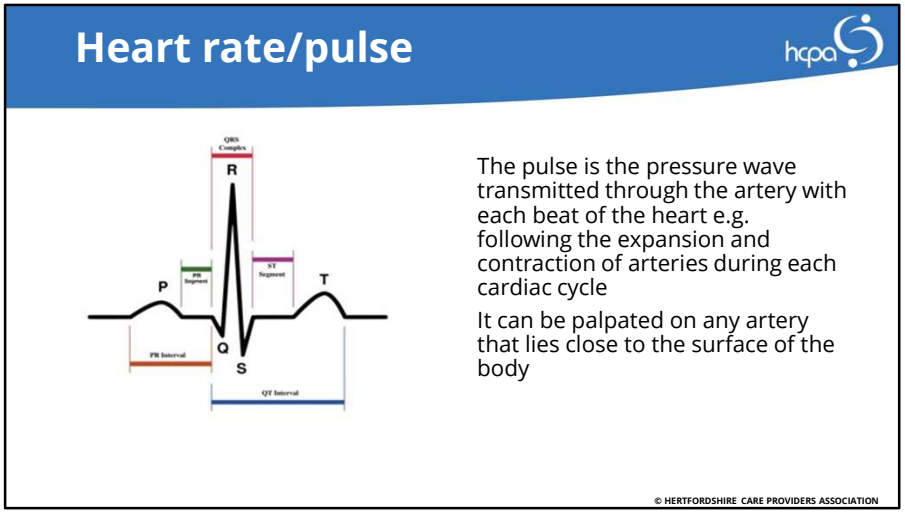


And as you can see on the NEWS2 form, low blood pressure **does** get a score, because (apart from the fact that if it drops it can cause Dizziness, Drowsiness, Unconsciousness and Heart Attack, which can all increase the risk of Falls and subsequent injury), as an infection gets worse, the immune system causes the blood vessels to **dilate** (that is they widen), in order to send more blood to the area, so the immune response mediators can fight the infection, and this dilation (widening) of the arteries causes a drop in blood pressure, so basically a drop in blood pressure in an acutely unwell person is very likely to indicate sepsis! You can see here, a systolic reading of 101-110 gets a score of 1, 91-100 gets a 2 and equal to or less than 90 gets a 3

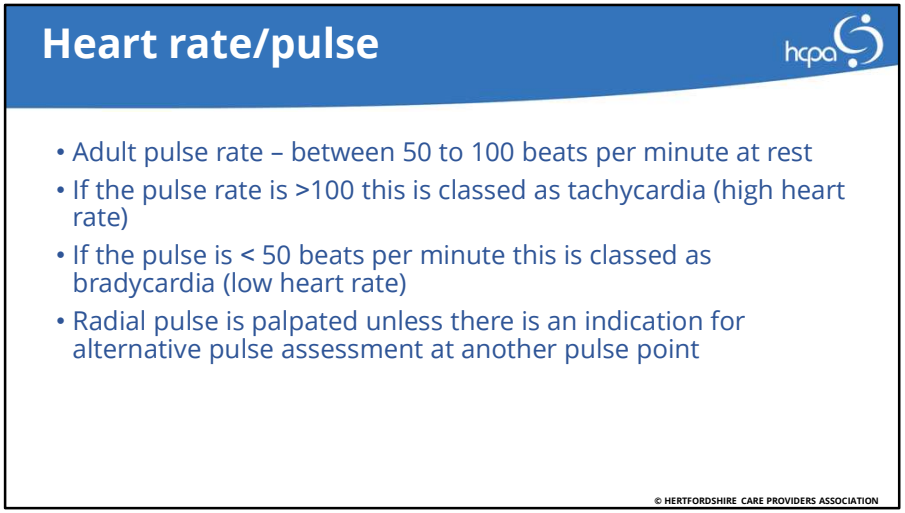


So for the practical, in pairs still I show them a video, then demonstrate, then

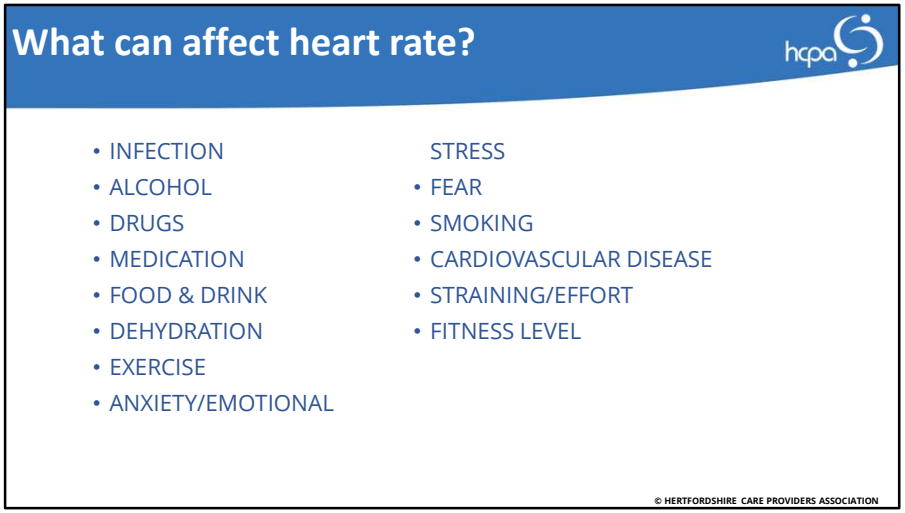
1. Ask them to measure the blood pressure on another person
2. And taking only the ***Systolic*** reading (the higher, top figure), to record their own reading on the NEWS2 chart with a dot in the appropriate box



The pulse is the pressure wave transmitted through the artery with each beat of the heart
It can be palpated on any artery that lies close to the surface of the body, for example….. The Radial pulse on the thumb side of the inside of the wrist, Temporal artery, carotid artery, brachial, ulnar (other side of the wrist, femoral, posterior tibial artery (just below the back of the knee) and the pedal pulse at the front of the ankle. The radial pulse is the one usually palpated unless there is an indication for alternative pulse assessment at another pulse point.



So the key points are that a normal heart rate for an adult at rest is between 50 to 100 beats per minute
If the pulse rate is >100 this is classed as tachycardia (high heart rate)
If the pulse is < 50 beats per minute this is classed as bradycardia (low heart rate)
However, the Oxygen saturations monitors also record the Heart Rate so this can be used instead

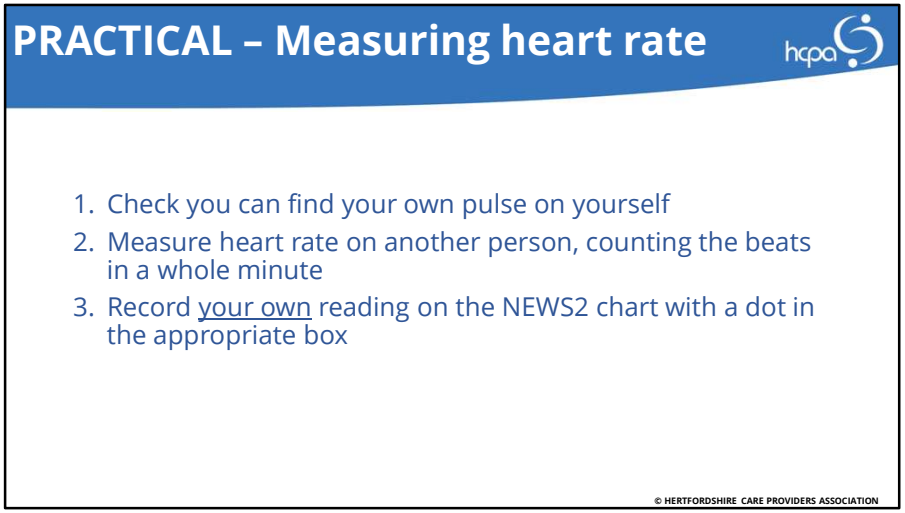


So as you may be aware……. Many things can affect our heart rate and in the acutely unwell person – **Infection** is the main factor, but also just to mention that for example MEDICATION: such as INHALERS – SALBUTAMOL FOR EXAMPLE WILL INCREASE HR and BETA BLOCKERS WILL DECREASE the HR,

EMOTIONAL STRESS causes CORTISOL RELEASE, which increases the HR

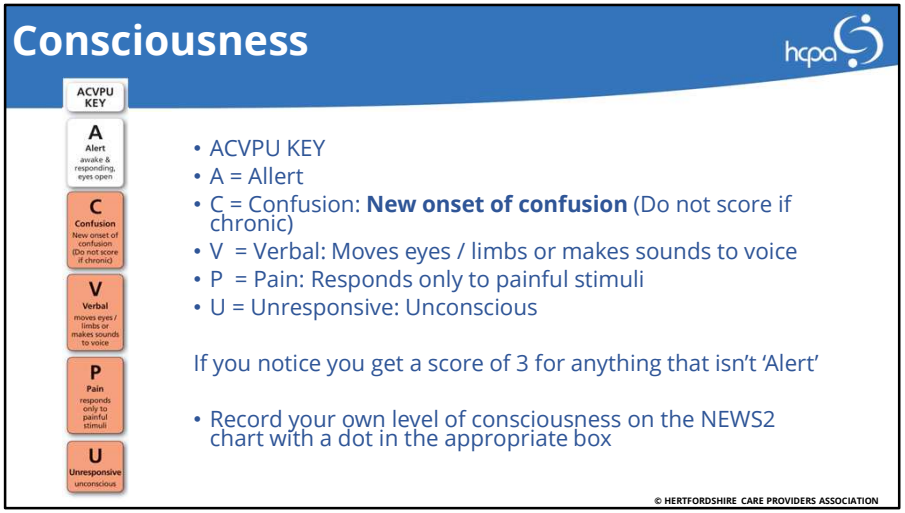
EXERCISE: The MUSCLES DEMAND MORE OXYGEN which increases the HR

CARDIOVASCULAR DISEASE SUCH AS ARRYTHMIAS can cause the Heart Rate to be inconsistent, plus the other factors that you see here



So again in pairs, the staff on training will

1. Check they can find their own pulse,
2. then they will find and measure the heart rate on another person
3. Then they will record their own reading on the NEWS2 chart with a dot in the appropriate box



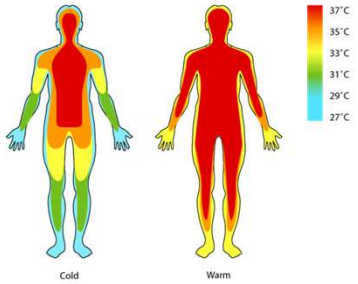
If you look down the left-hand side of the NEWS2 form.
You will see this ACVPU KEY (which I have cut out to show you)
So when we are talking about consciousness in an acutely unwell person:

C = Confusion: that is a **New onset of confusion** (Do not score if the confusion is long standing)
V = Verbal: the person moves their eyes / limbs or makes sounds in response to a voice stimulus
P = Pain: Responds only to painful stimuli for example pressing on the sternum as you would do in a first aid situation
Or U = Unresponsive: that is Unconscious

If you notice, you get a score of 3 for anything that isn't 'Alert', so basically they are alert, or they are not!

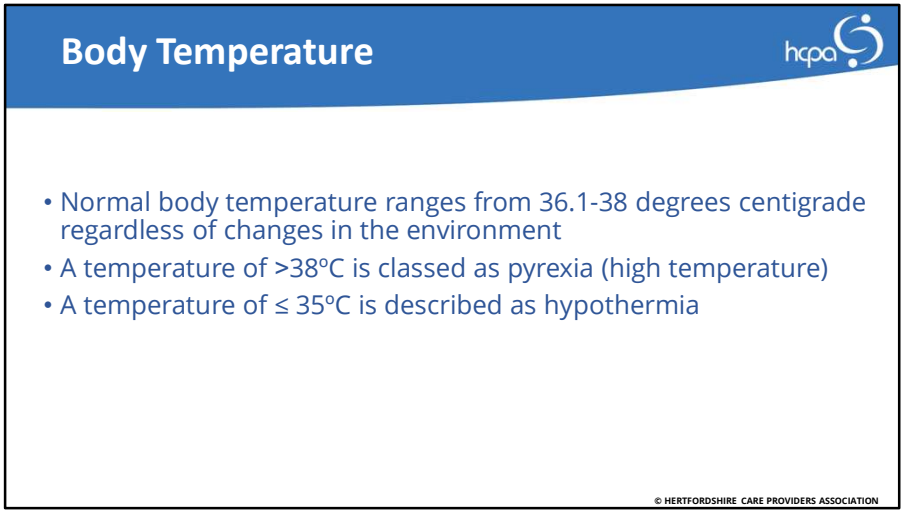
And so the delegates on training record their own level of consciousness on the NEWS2 chart with a dot in the appropriate box, so they will all put a dot in the white box….. Which means that they are alert! Drowsy maybe, but nothing that is in any of the red categories!

Body temperature



What is the normal range of body temperature for an adult?

So on to temperature….What is the normal range of body temperature for an adult?
Next slide

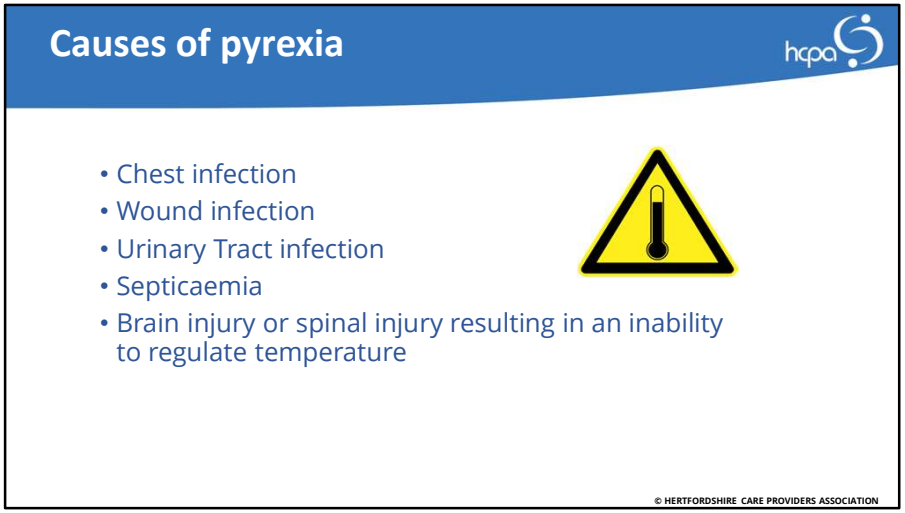


Generally it is between 36.1 and 38 degrees centigrade, but is different for everyone and it changes during the day. My temperature – Keeping My Chest Healthy

Depending on where you look it up though, the normal range can be between 35-38 depending on what is normal for the person

The measurement of body temperature can help detect illness.

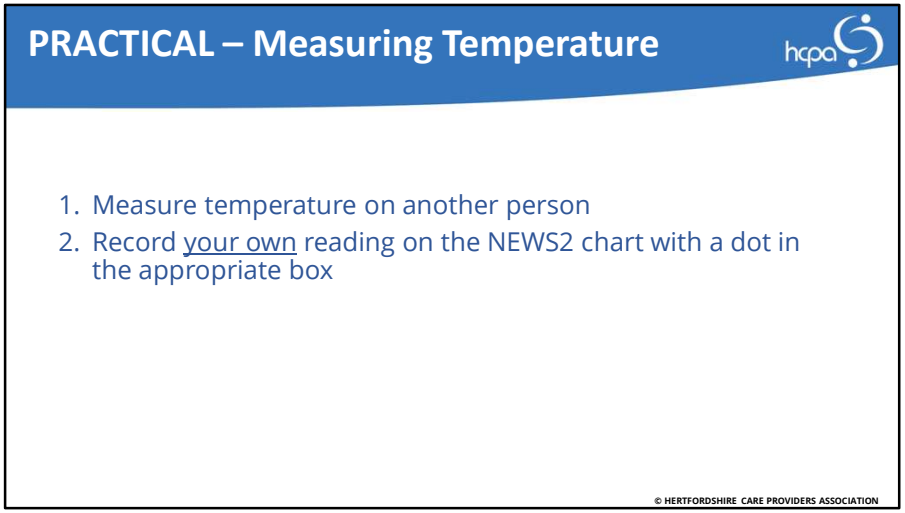
A temperature of 38C or more is usually considered a high temperature (pyrexia, or fever) and 35C or less is usually considered a very low temperature (hypothermia). A high or a low temperature can tell us something is wrong….



And that can be a:
Chest infection
Wound infection
Urinary Tract infection
Obviously this includes Septicaemia
And also
For a person with a brain injury or spinal injury where there is in an inability to regulate temperature

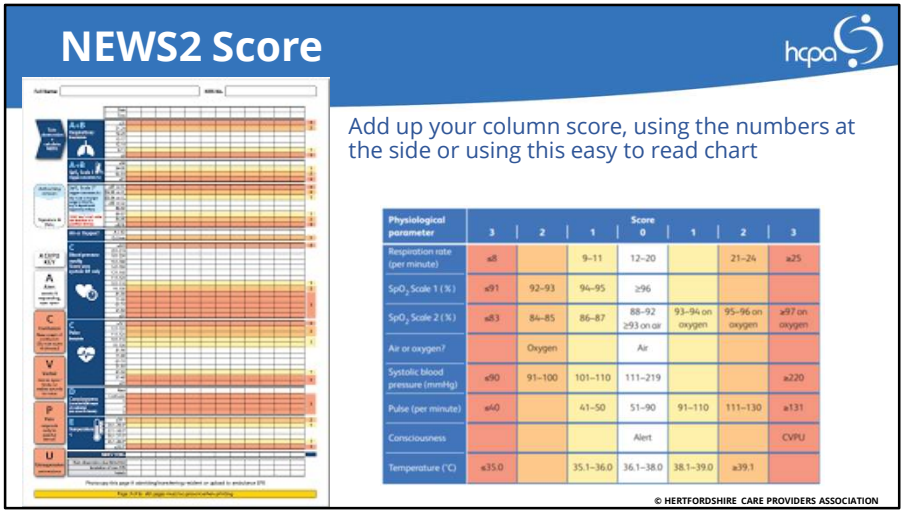
And most importantly, you try to
IDENTIFY the CAUSE OF PYREXIA and
And Keep person comfortable – remove bed sheets, and use a fan can as this can cool a patient
Don't give anti-pyretics (such as paracetamol) in pyrexia (as these can mask pyrexias) –
Questions to ask:
What is the source of the infection e.g. wound, urinary tract infection, urethral catheter, supra-pubic catheter, do they have

diarrhoea/are they chesty? The soft signs we talked about will really help here



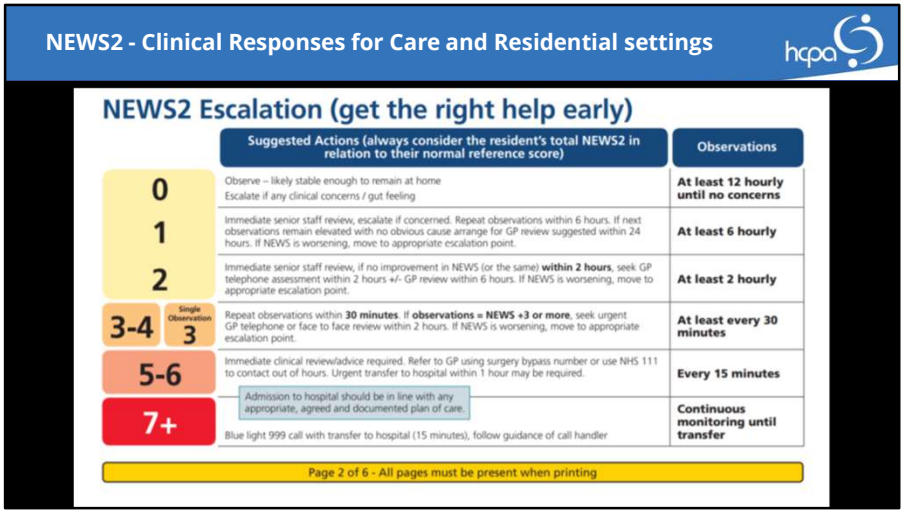
Preferably use a tympanic thermometer (they are the most accurate - records core temperature via ear canal)

1. So I get the delegates to measure temperature on another person
2. And to record their own reading on the NEWS2 chart with a dot in the appropriate box



So that is all of the readings we need, and you do need ALL of them, ie you can't miss any out otherwise the total wouldn't be correct for a NEWS score

So now you add up all the scores in your column, using the numbers at the side of the NEWS2 recording sheet
And it is clear to see on the scoring sheet on the right (which is NOT part of the RESTORE2 document btw, but you can access it on the HCPA website), where it os especially easy to see that each score is dependent upon their vital signs measurements, the 'normal values' are in the middle, white column and any value outside of these gives a score. Eg if the HR is 120 , it will give a score of 2, if the respiratory rate is 25 or above, it is a 3
AND of course you will get **exactly the same score whichever form you use, but** you record this on the NEWS2 form at the bottom of the column where it says NEWS total…….
And then…….



This score determines the most appropriate response!
Most importantly, this part of the RESTORE2 document tells you what category of urgency the person falls into, and hence

The responses have been adapted for care settings so that, for example, calling the registrar, may now be calling the GP out of hours services.
As you can see if someone scores a zero, and you have a gut feeling they are not okay, you should recheck their observations in 12 hours time, (as you can see the recommended frequency of monitoring is indicated in the right hand column), and escalating if their NEWS score increases, or if there are any clinical concerns that have maybe not been picked up by completing the RESTORE2.
So if someone scores a 3-4, then you would seek urgent an GP face to face review within 2 hours, repeating observations every 30 minutes and moving to a higher category if the score increases.
If the person scores a 5 or 6, then here it says: Immediate clinical review/advice required. Refer to GP using surgery

bypass number or use NHS 111 to contact out of hours. Consider also that an urgent transfer to hospital within 1 hour may be required. …. Remembering of course that the admission to hospital should be in line with any appropriate, agreed and documented plan of care.
Also I just want to say here that it is really important to utilise the Avoidance of Admission services especially in this category, where it is not appropriate to call 999, (and using 111 for any out of hours calls, that is between 8pm and 8am)– and I will be sharing those Avoidance of Admission Services numbers right at the end of this webinar
unless the person has a score of 7
So a score of 7 or more means …a Blue light 999 call with transfer to hospital (within 15 minutes….. And 15 minutes is more likely to be the case if we do not overburden the Ambulance services with unnecessary calls or preventable scenarios), and of course, as it says here, follow the guidance of call handler and again, frequency of monitoring is indicated in the right hand column – and for a 7 or more score, it should be continuous.

So I hope that all makes sense, and that you can see what a BRILLIANT tool this is! Really you all need to be using it so that you can do the best for the people that you care for, and **either** prevent them from going to hospital wherever possible, **or** getting them to hospital as quickly as possible if this is indicated…. It really takes the guesswork out of these very difficult decisions. I have worked in a Nursing home and it was frequently really hard for the nurses to decide whether, and when, to send someone to hospital, and basically it helps to gives staff ‘back up’ for their decision making

How to use RESTORE2

What's normal for this resident

End of Life (EOL) or Agreed Limit of Treatment

NEWS2 Escalation (get the right help early)

	Suggested Actions (always consider the resident's total NEWS2 in relation to their normal reference score)	Observations
0	Observe – likely stable enough to remain at home Escalate if any clinical concerns / gut feeling	At least 12 hourly until no concerns
1	Immediate senior staff review, escalate if concerned. Repeat observations within 4 hours. If next observations remain elevated with no obvious cause arrange for GP review suggested within 24 hours. If NEWS is worsening, move to appropriate escalation point.	At least 6 hourly
2	Immediate senior staff review. If no improvement in NEWS (or the same) **within 2 hours**, seek GP telephone assessment within 2 hours or GP review within 4 hours. If NEWS is worsening, move to appropriate escalation point.	At least 2 hourly
3-4 (single 3)	Repeat observations within **30 minutes**. If **observations** = **NEWS** =3 or more, seek urgent telephone assessment. See for face review within 2 hours. If NEWS is worsening, move to appropriate escalation point.	At least every 30 minutes
5-6	Immediate clinical review/advice required. Refer to GP using surgery bypass number or use NHS 111 to contact out of hours. Urgent transfer to hospital within 1 hour may be required.	Every 15 minutes
7+	Admission to hospital should be in line with any appropriate, agreed and documented plan of care. Blue light 999 call with transfer to hospital (15 minutes), follow guidance of call handler	Continuous monitoring until transfer

Page 2 of 6 - All pages must be present when printing

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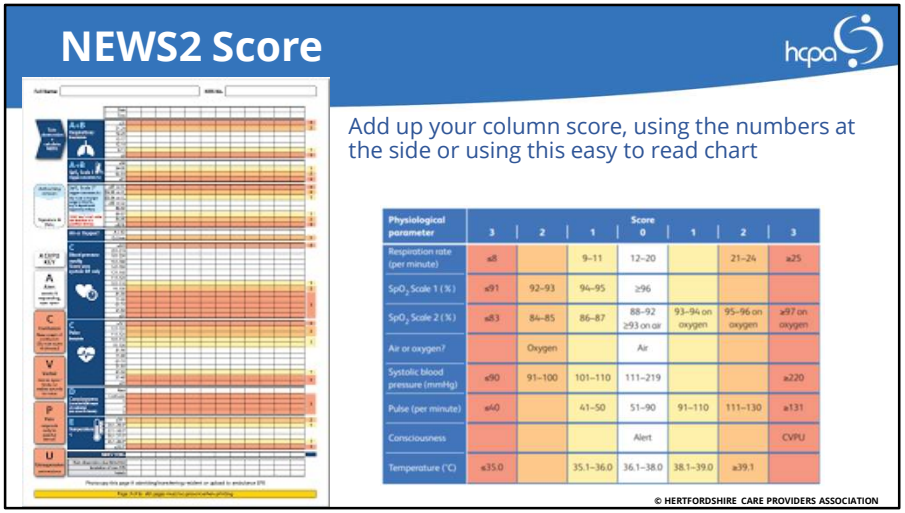
The escalation chart is here on page 2 of the RESTORE2 form……as this is probably where it fitted! But you obviously only use it when you have calculated the NEWS score, and as you can see here, it also tells you how to use the form and asks you What is normal for this person…… and also makes you think about the End of Life or agreed limit of treatment, that we need to be recording anyway for everyone, on their Respect forms

Both NEWS2 and RESTORE2 documents are available to download from the HCPA website by the way



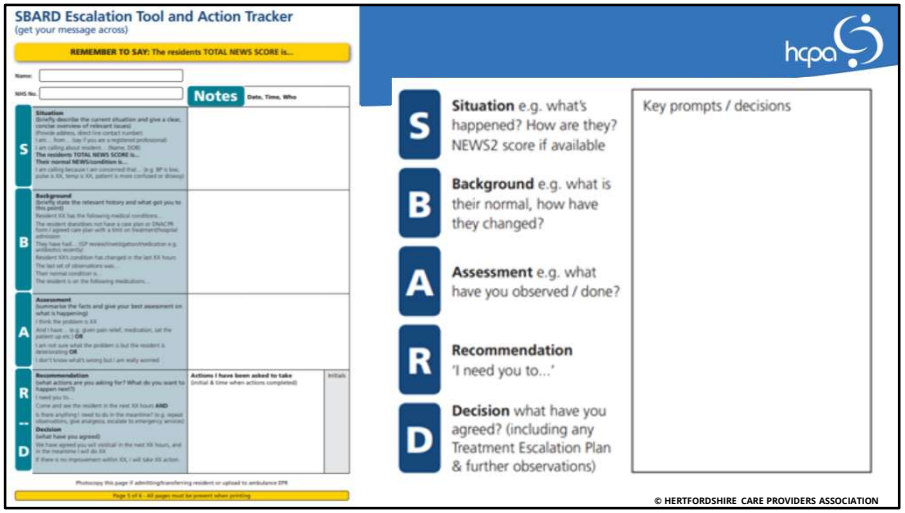
So lets go back to the scoring chart and consider a scenario

Jack is having care at your home after a 6 week hospital admission, for pneumonia. He has a history of recurrent chest infections.. You notice that he seems drowsier than normal, and he appears short of breath although he can speak to you and answer questions coherently. You record his vital signs during the visit as the following:

- Respiratory rate 25 – also in the red, so a 3
- Oxygen saturation 94% on room air – that's in the yellow so a 1
- He is not on oxygen, so that is a zero
- Blood pressure 90/55 – that's the only 90 we look at, and that's in the red, so a 3
- Pulse 110 - that's in the yellow so a 1
- Temperature 36 – also in the yellow so a 1
- And He is alert- which is a zero
- **And his ReSPECT form/Treatment escalation plan says that he is still for hospital admission**

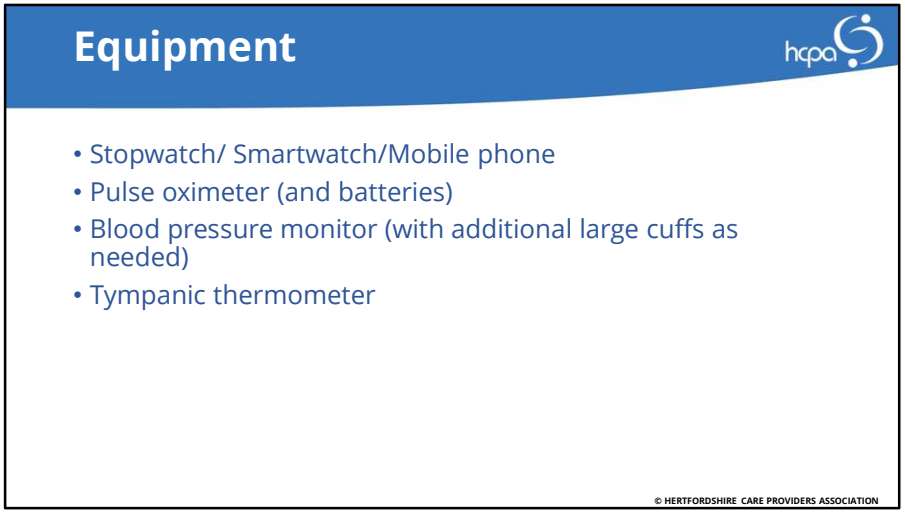
So, Using NEWS2, what would you do?

Yes! you would send him straight back to hospital as this is a failed discharge.



And on the last page of the RESTORE2 document…….is the brilliant SBARD, which is the widely recognised format for giving clarity when relaying information – and which used to be called SBAR… but has had the D added

So, Situation (briefly What's happened? How is the person presenting? NEWS2 score?
Background For example What's their normal and how have they changed?
Assessment: What have you observed and what have you done so far?
Recommendation: what actions are you asking for? What do you want to happen next?) I need you to… Come and see the resident for example, AND Is there anything I need to do in the meantime?
Decision (what have you agreed) including any treatment escalation plan/ further observation/intervention etc

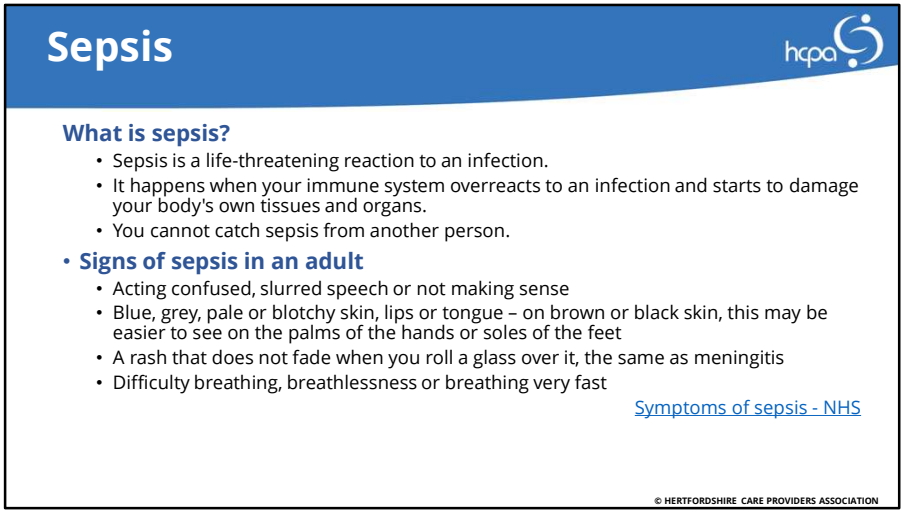


So the equipment needed is:
A Stopwatch/ Smartwatch/Mobile phone
A Pulse oximeter (and batteries)
A Blood pressure monitor (with additional large cuff as needed)
A Tympanic thermometer

And for people in their own homes, I would say that there are 2 possible solutions:

1. The person themselves having their own set of equipment
2. Every member of staff having their own set (and of course in this case all staff would need to have been trained on how to use the equipment and how to complete the RESTORE2 and NEWS2 form).

It would be **no good** if you relied on a member of office staff to come with the equipment, as then you will have wasted time, and if the person's score was a 7 for example you don't want a delay taking the observations!
Because it would be blue light 999 with hospital transfer with 15 minutes… and this would be a high priority for ambulance crews, so it is REALLY useful that you give the NEWS score, as this can make a difference to how the person is prioritised!



So a bit about Sepsis….
Sepsis is one of the most frequent causes of death worldwide, From data published in 2020, there were 48.9 million cases and 11 million sepsis-related deaths worldwide, representing 20% of all global deaths *(2).*
So what is Sepsis?
• Sepsis is a life-threatening condition that arises when the body's response to infection causes injury to its own tissues and organs
• Sepsis is when your body fights too hard against an infection, when the body has an infection present and goes into over-drive, this causes inflammation within the body, swelling and blood clotting
• This could then cause vital organs to start shutting down
• Anyone can develop sepsis after an injury or minor infection, although some people are more vulnerable
• Sepsis is sometimes called septicaemia or blood poisoning
• Sepsis can affect multiple organs or the entire body, even without blood poisoning or septicaemia
• Individuals who have suspected sepsis need urgent attention

And you cannot catch sepsis from another person!

The Signs of sepsis in an adult, according to the NHS are

Acting confused, slurred speech or not making sense

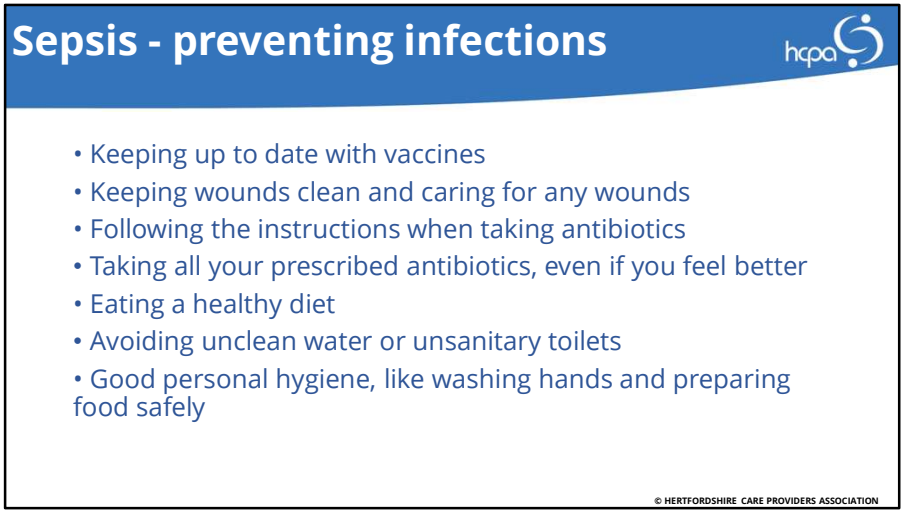
Blue, grey, pale or blotchy skin, lips or tongue – on brown or black skin, this may be easier to see on the palms of the hands or soles of the feet

A rash that does not fade when you roll a glass over it, the same as meningitis

Difficulty breathing, breathlessness or breathing very fast

I would also add fever, a low temperature, shivering or muscle pain, passing no urine in a day, and often people fell like they are going to die and this is from:. Sepsis WHO

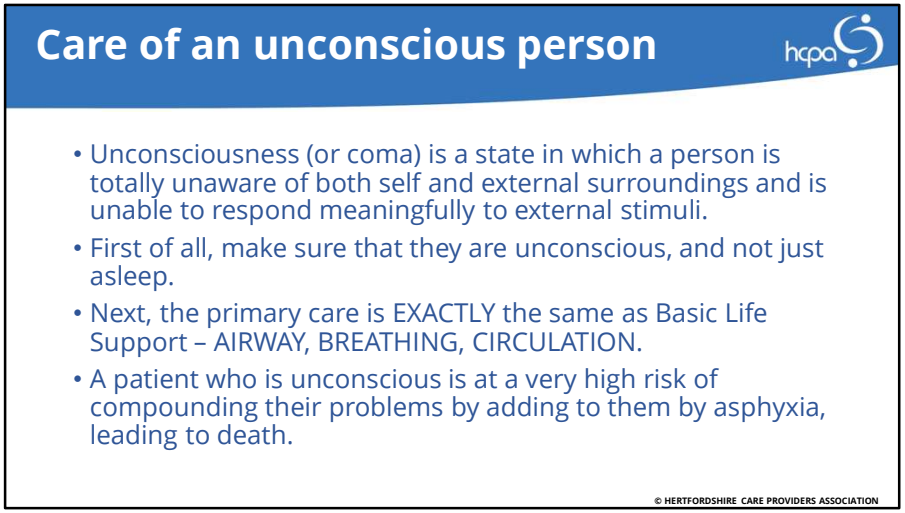
And please remember that you **will** have picked up these signs and symptoms on the RESTORE2 assessment and so you can this handover



So, What can be done to help prevent infections that can lead to sepsis:

- Keeping up to date with vaccines
- Keeping wounds clean care for any wounds
- Following the instructions when taking antibiotics and making sure you take all your prescribed antibiotics, even if you feel better
- eating a healthy diet , avoiding unclean water or unsanitary toilets and

Washing your hands regularly and preparing food safely in line with IPC guidelines– which obviously means your care staff too especially if they are caring for someone who has an infection.

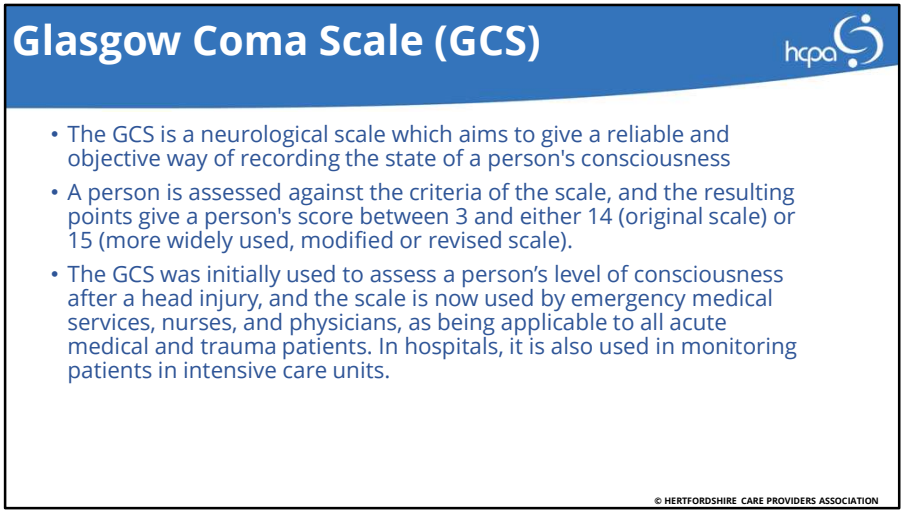


So we are just going to touch on the care of an unconscious patient, and you would have picked up this on the NEWS score – however it is worth having a bit more of an understanding.
First of all, Unconsciousness (or coma) is a state in which a person is totally unaware of both self and external surroundings and is unable to respond meaningfully to external stimuli.
It might sound daft, but you need to make sure that they are unconscious, and not just asleep.
Next, the primary care is EXACTLY the same as Basic Life Support – AIRWAY, BREATHING, CIRCULATION.
A patient who is unconscious is at a very high risk of compounding their problems by adding to them by asphyxia, which could lead to death.

When consciousness is lost, the tongue usually falls back in the pharynx and obstructs the airway. The cough reflex is lost, and blood or regurgitated stomach contents are often aspirated into the lungs.
Therefore, the unconscious patient must have their airway supported by tilting the head and lifting the chin and by placing them into the recovery position to prevent aspiration. They must be checked frequently to make sure they are breathing:

Look – watch the chest moving easily, without the use of accessory muscles or the abdomen heaving

Listen – with your ear at the person's mouth
Feel – the flow of air at the mouth with your hand or cheek, and chest or abdominal movements



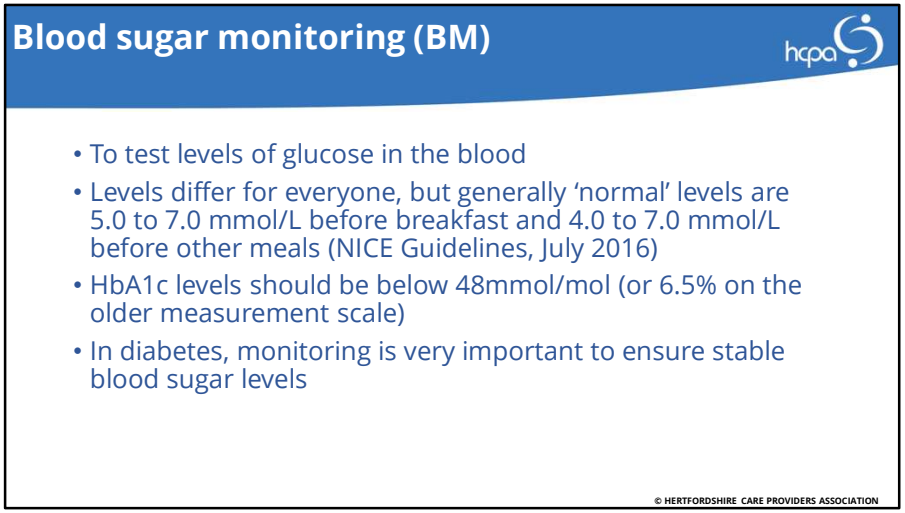
The GCS is a neurological scale which gives a reliable and objective way of recording the state of a person's consciousness for initial as well as subsequent assessment.
A person is assessed against the criteria of the scale, and the resulting points give a person's score between 3 (indicating deep unconsciousness) or 15 (fully awake)
GCS was initially used to assess a person's level of consciousness after a head injury, and the scale is now used by emergency medical services, nurses, and physicians as being applicable to all acute medical and trauma patients, in hospitals and in nursing and residential settings.

Elements of the GCS

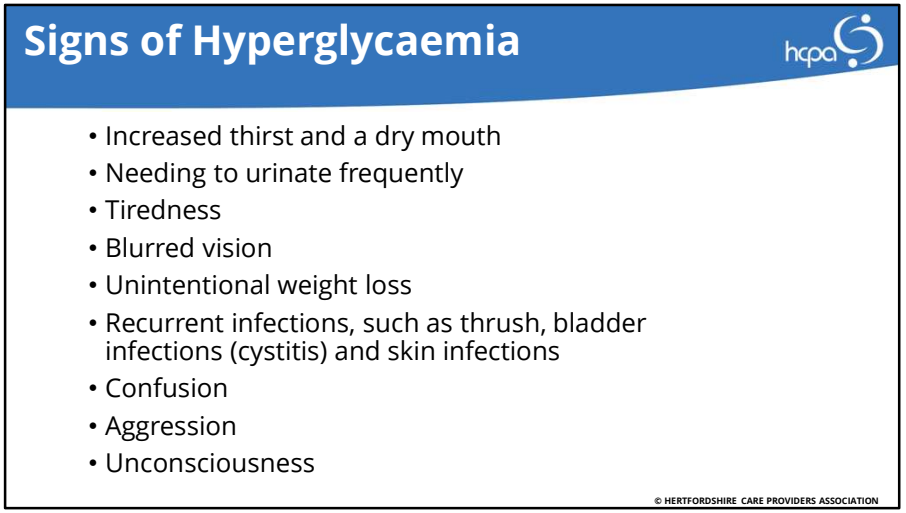
Glasgow Coma Scale [3]

	1	2	3	4	5	6
Eye	Does not open eyes	Opens eyes in response to pain	Opens eyes in response to voice	Opens eyes spontaneously	N/A	N/A
Verbal	Makes no sounds	Makes sounds	Words	Confused, disoriented	Oriented, converses normally	N/A
Motor	Makes no movements	Extension to painful stimuli (decerebrate response)	Abnormal flexion to painful stimuli (decorticate response)	Flexion / Withdrawal to painful stimuli	Localizes to painful stimuli	Obeys commands

So you can see here it looks at
Eye opening, verbal responses, and motor responses as in movements, and Note that a motor response in any limb is acceptable
The three values are considered separately as well as their sum.
Generally, brain injury is classified as:
Severe, GCS < 8–9
Moderate, GCS 8 or 9–12 (controversial)
Minor, GCS - 13 and above



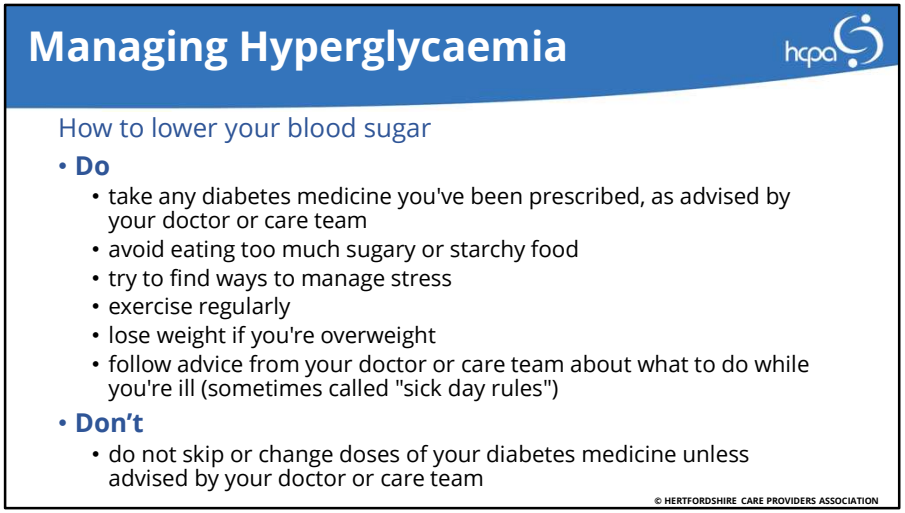
And for people with diabetes, as it says here
We also test to check the level of glucose in the blood
Levels differ for everyone, but generally 'normal' levels are 5.0 to 7.0 mmol/L before breakfast and 4.0 to 7.0 mmol/L before other meals (NICE Guidelines, July 2016)
HbA1c levels should be below 48mmol/mol (or 6.5% on the older measurement scale)
And as you know, in diabetes, monitoring is very important to ensure stable blood sugar levels
And The NHS say levels should be under 8.5-9 after a meal



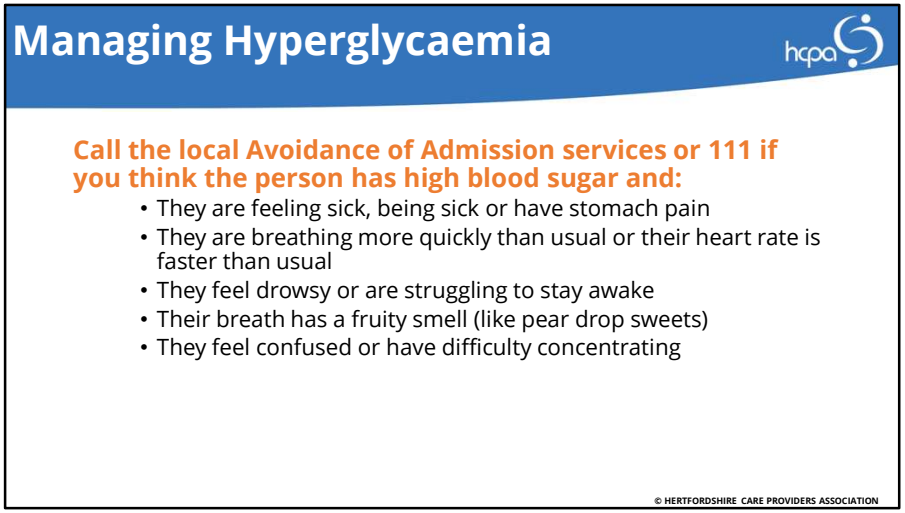
So I am sure you know Hyperglycaemia is the word for HIGH blood sugar :
So signs and symptoms are any of the following:
Increased thirst and a dry mouth
Needing to urinate frequently
Tiredness or feeling weak
Blurred vision
Unintentional weight loss
Recurrent infections, such as thrush, bladder infections (cystitis) and skin infections
Confusion
Aggression
Unconsciousness

and Common *causes* of high blood sugar in people with diabetes include:
being unwell

feeling stressed
eating too much sugary or starchy food
being less active than usual
missing doses of diabetes medicine
You can also get high blood sugar if your diabetes medicine is not working well, if you're taking certain medicines (such as steroids) or you recently had an operation.
High blood sugar (hyperglycaemia) - NHS



So what can we do for high blood sugar, well, if a person you care for has diabetes, it's important to try to stop their blood sugar level getting too high, but if it gets high, you need to ensure they take their prescribed medication, and not to skip or alter doses, and to help them to avoid eating lots of sugary foods. You can also help them to find ways of managing stress and help them to do more exercise (and remember the level of exercise or physical activity that is considered 'moderate' is activity that makes you slightly out of breath but where you can still talk), and try to help them to lose weight if that is a problem for them…… of course, if a person has capacity to make decisions about any or all of the above, you can only inform them of any information they may not know –any more would be coercion – unless of course their blood sugar is affecting their ability to make a decision, in which case you would act in their best interests, just as you would with any person who lacks capacity to make a decision at a given time



And you should call the local Avoidance of Admission services or 111 if

You think the person has high blood sugar and:

They are feeling sick, being sick or have stomach pain

They are breathing more quickly than usual or their heart is beating faster than usual

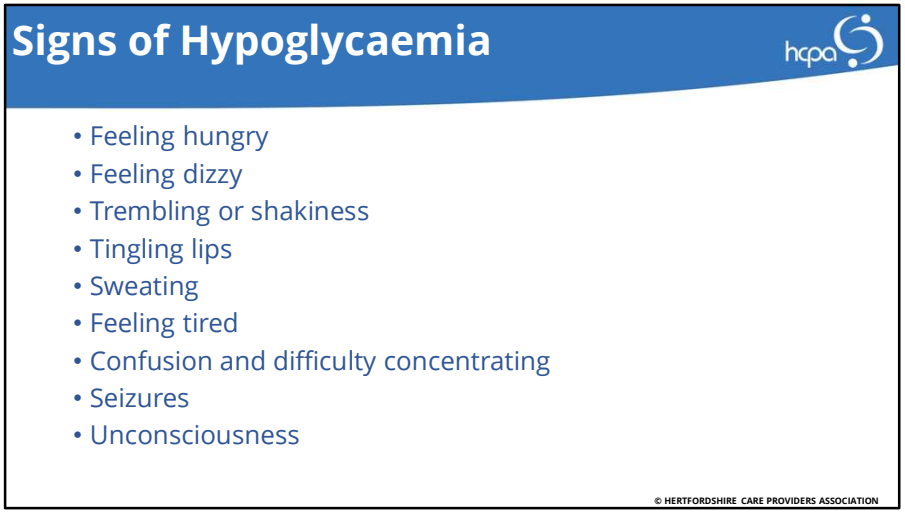
They feel drowsy or are struggling to stay awake

Their breath has a fruity smell (like pear drop sweets)

They feel confused or have difficulty concentrating

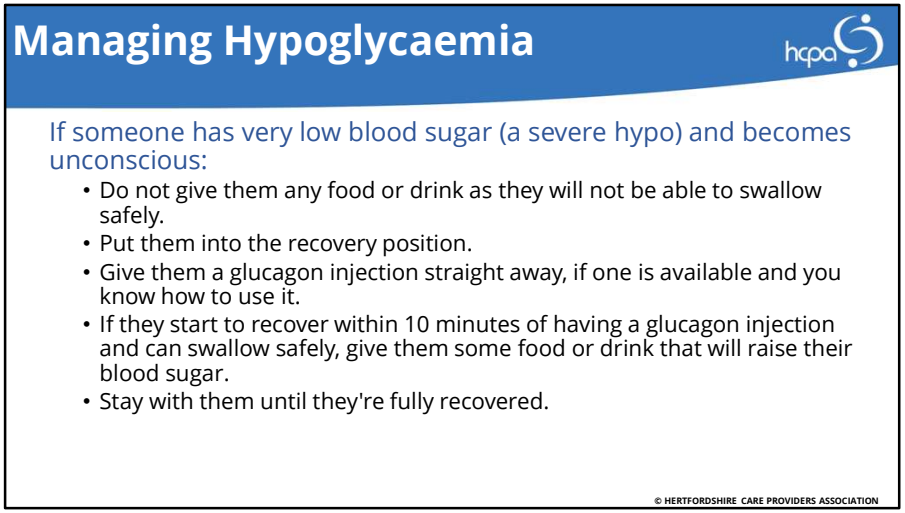
If they were in a hospital where they could test it, they might have a high level of ketones in their blood or pee

These could be signs that they are becoming seriously unwell.



Signs and symptoms of **low blood sugar** (hypoglycaemia) are any of the following : and some are similar to those for high blood sugar
feeling hungry
feeling dizzy
feeling anxious or irritable
sweating
shaking
tingling lips
heart palpitations
feeling tired or weak
changes in vision such as blurred vision
feeling confused
If a person has severe low blood sugar they may even:
become unconscious or

have a seizure
It's also possible for hypoglycaemia to occur during sleep, which can cause excess sweating, disturbed sleep, and feeling tired and confused upon waking.
LISTEN TO the person – a person with diabetes who says “I feel funny” is a key sign
Low blood sugar (hypoglycaemia) - NHS



How to treat severe low blood sugar

If someone has very low blood sugar (a severe hypo) and becomes unconscious:

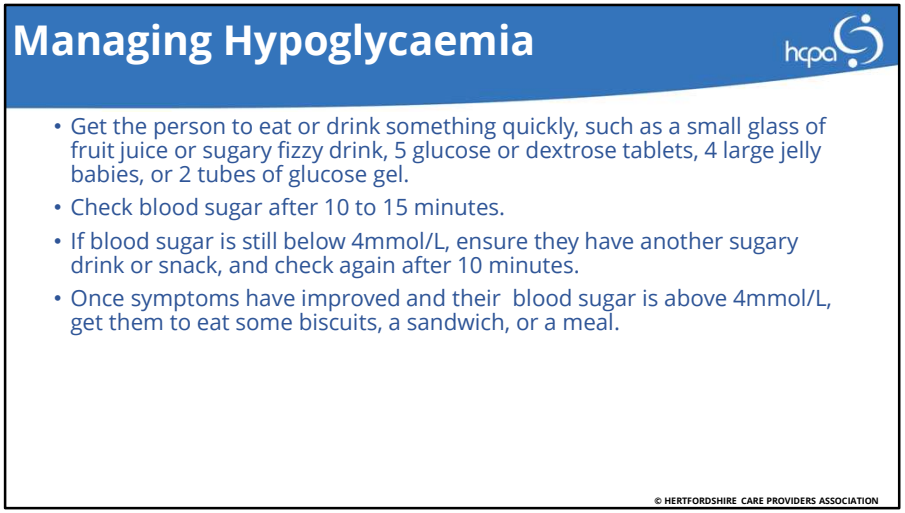
Do not give them any food or drink as they will not be able to swallow safely.

Put them into the recovery position.

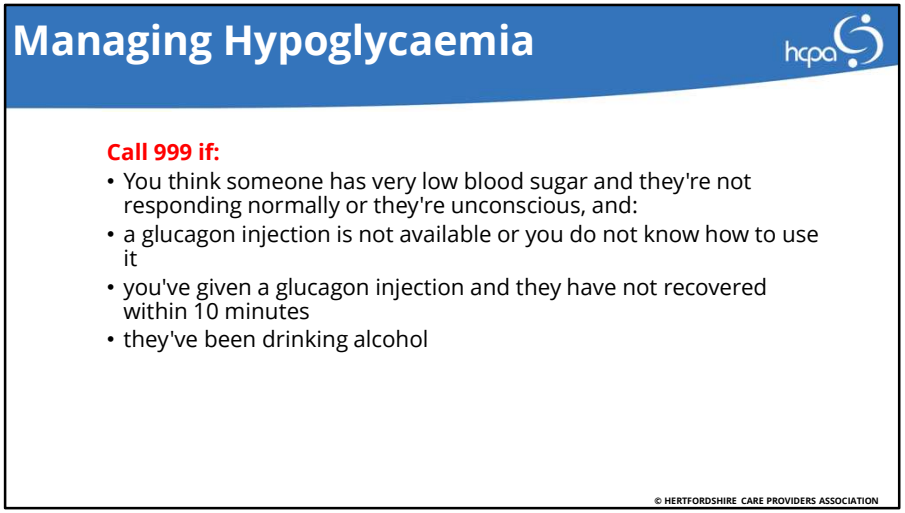
Give them a glucagon injection straight away, if one is available and you know how to use it.

If they start to recover within 10 minutes of having a glucagon injection and can swallow safely, give them some food or drink that will raise their blood sugar.

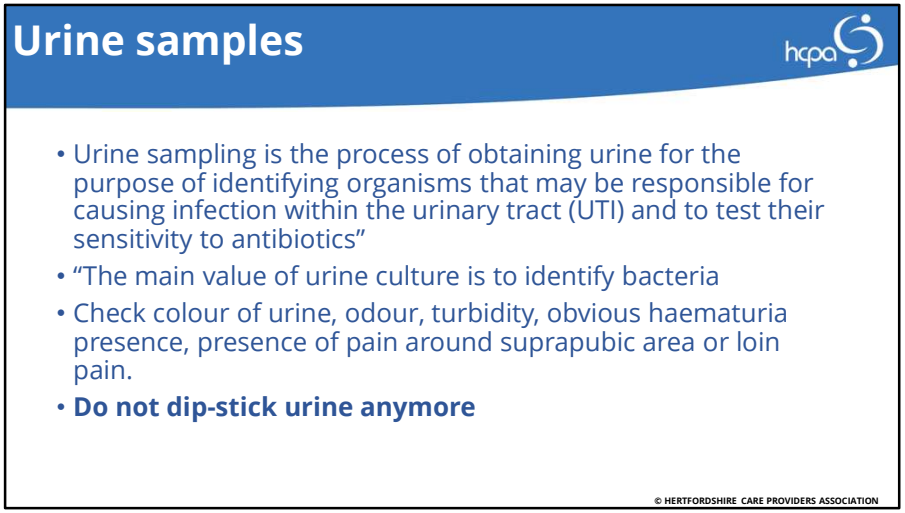
Stay with them until they're fully recovered.



If the person has diabetes and gets symptoms of low blood sugar (a hypo) or their blood sugar is below 4mmol/L:
Get them to
Eat or drink something that will raise their blood sugar quickly, such as a small glass of fruit juice or sugary fizzy drink, 5 glucose or dextrose tablets, 4 large jelly babies, or 2 tubes of glucose gel.
Check their blood sugar after 10 to 15 minutes.
If their blood sugar is still below 4mmol/L, have another sugary drink or snack, and check again after 10 minutes.
Once their symptoms have improved and their blood sugar is above 4mmol/L, eat something that will keep your blood sugar up for longer, such as some biscuits, a sandwich, or your next meal if it's due.



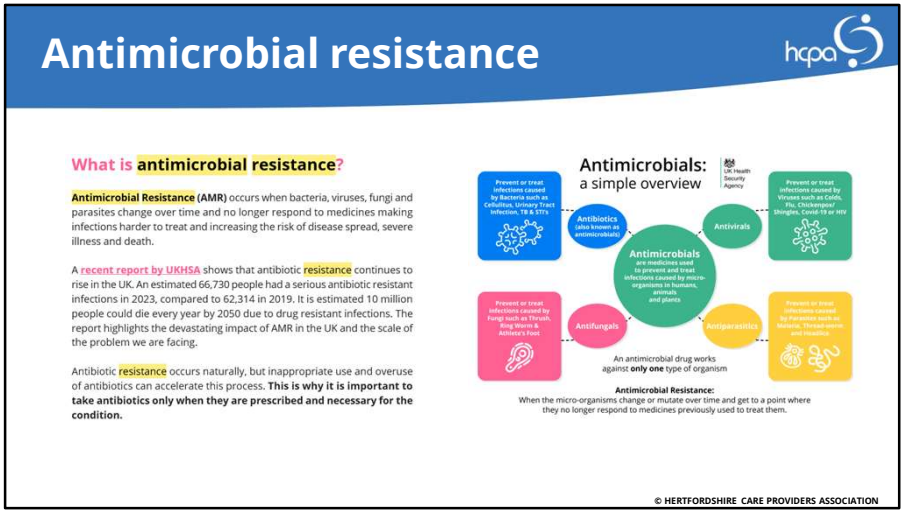
However , you should Call 999 if:
You think someone has very low blood sugar and they're not responding normally or they're unconscious, and:
a glucagon injection is not available, or you do not know how to use it
Or you've given a glucagon injection, and they have not recovered within 10 minutes
Or they've been drinking alcohol



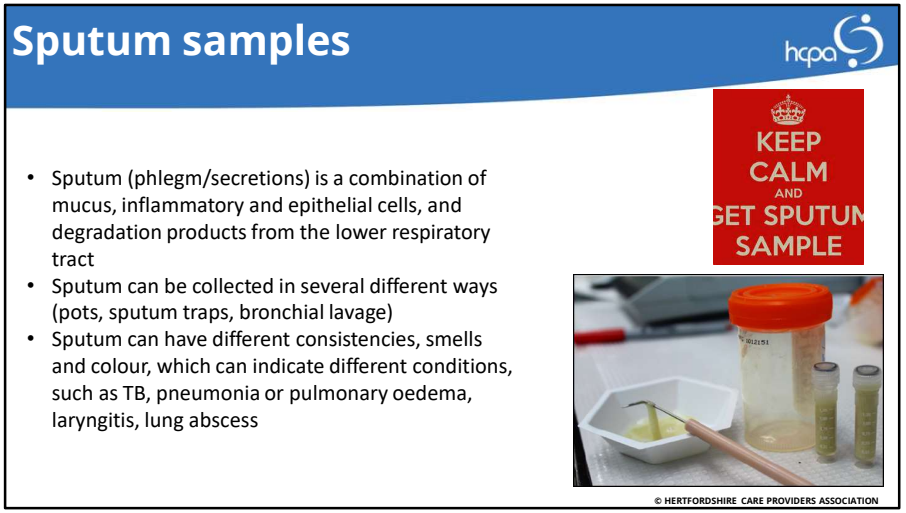
Now we are going to briefly talk about samples (specimens) of urine, sputum, faeces and vomitus….. And although I don't have time to go through this in much detail, it goes without saying that **All specimens must be collected using standard infection prevention and control measures**

Urine sampling is the process of obtaining urine for the purpose of identifying organisms that may be responsible for causing infection within the urinary tract (UTI).
Urine sample requests for Microscopy, Culture and sensitivity (MC&S) are the most commonly collected samples
"The main value of urine culture is to identify bacteria and their sensitivity to antibiotics"
Under normal circumstances protection of the urinary tract is due to the constant flow of urine and regular emptying of the bladder. This prevents multiplication of micro-organisms.
There is normally a small amount of organisms at the proximal end of the urethra therefore urine may contain these organisms as it passes through on its way out. "Therefore, the presents of bacteria is insignificant in the absence of clinical symptoms of an infection" (Weston 2008).
For this reason, it is now **not** considered good practice to dip-stick urine as it produces lots of false positives.

Instead a sample should be sent for MC&S to establish the correct antibiotic to treat the bacteria causing the infection



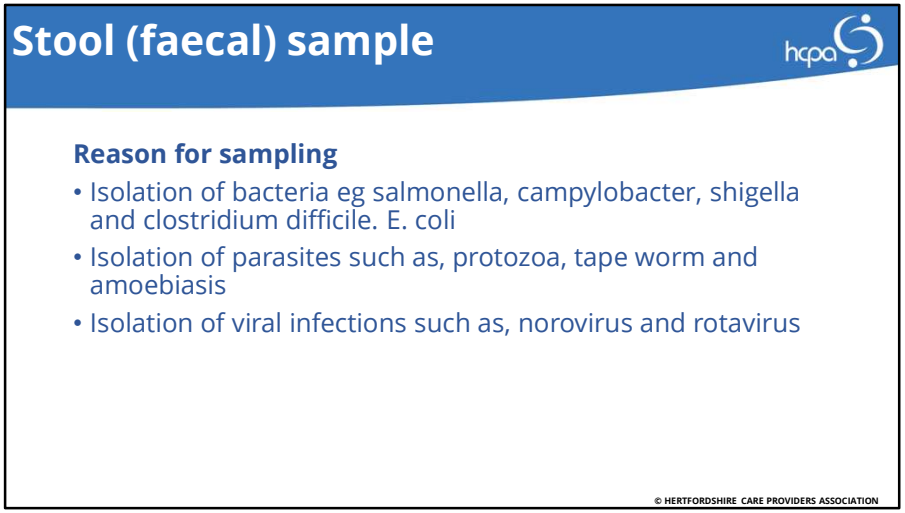
And we do not want to be giving people antibiotics when they are not the correct ones as we compound the problem of Antimicrobial resistance, which means that the organisms become resistant to medicines (in this case bacteria become resistant to antibiotics), making infections harder to treat, which increases the risk of the spread of disease, of severe illness and death. We really must challenge the use of broad spectrum antibiotics if the infection has not been identified, and this applies to chest infections and pneumonias and other infections too ….



- Sputum (phlegm/secretions) is a combination of mucus, inflammatory and epithelial cells, and broken down products from the lower respiratory tract
- Sputum can be collected in several different ways (pots, sputum traps, bronchial lavage). You would be using a sputum pot.

Sputum can have different consistencies, smells and colour, which can indicate different conditions, such as TB, pneumonia or pulmonary oedema, laryngitis, a lung abscess. For example in pulmonary oedema (which is a heart condition nota respiratory one– sputum is often pink and frothy, whereas in a chest infection it may be thick, green or yellow Blood stained sputum can occur in TB and also in some pneumonias or in lung cancer

- And as I said it is really important to think about obtaining sputum samples for the very same reason as we mentioned for UTIs to ensure we get the right antibiotic for the infection if it's a bacterial infection that is, and if it isn't antibiotics WILL NOT WORK anyway!

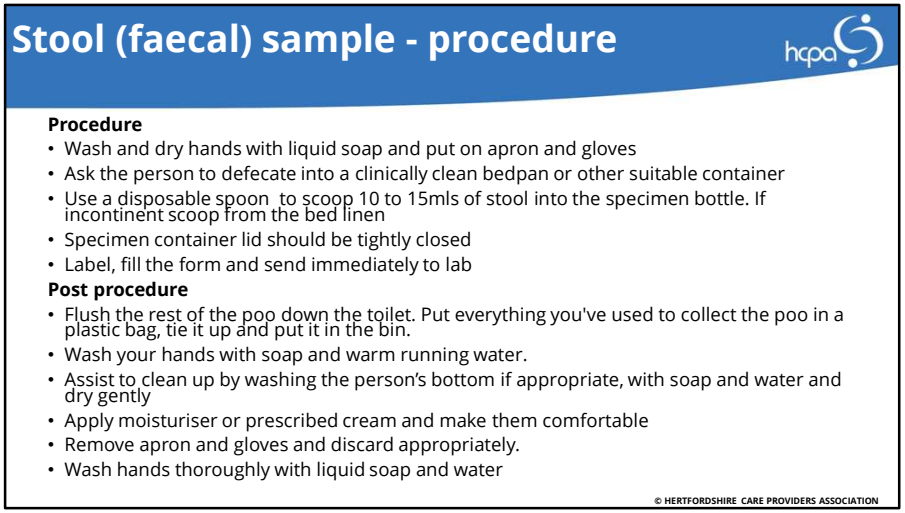


So onto stool/poo samples

The Reason for sampling may be

- Isolation of bacteria eg salmonella, campylobacter, shigella and clostridium difficile or E. coli
- Isolation of parasites such as, protozoa, tape worm and amoebiasis
- Isolation of viral infections such as, norovirus and rotavirus

In the event of a D&V outbreak you should:
Remove all alcoholic handrubs that are in use, as these have limited effectiveness against some diarrhoeal diseases like norovirus or Clostridium difficile.
In
stead, ensure that liquid soap and disposable paper hand towels are available in all toilets and communal bathrooms, including individuals' rooms/ensuites



And here is the NHS procedure for collecting a stool sample

Put something in the toilet to catch the poo, such as a clean disposable container, or spread newspaper or cling film (plastic wrap) over the rim of the toilet.

Get the person to do a poo. Make sure it does not touch the inside of the toilet, or the water.

Use a disposable spoon to put some poo in the container – sometimes the container comes with a spoon. Include any poo that's watery or has blood or slime in it.

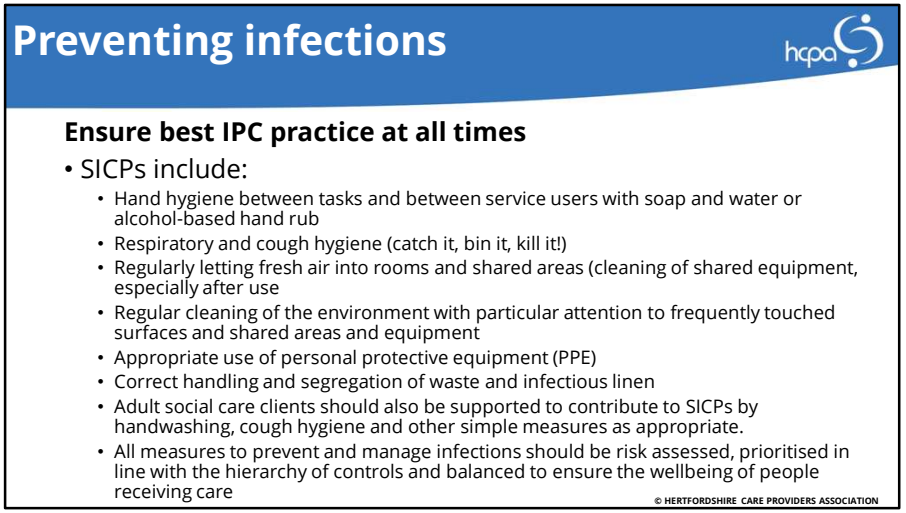
Fill the container just under halfway with poo, then screw the lid shut.

After the procedure

Flush the rest of the poo down the toilet. Put everything you've used to collect the poo in a plastic bag, tie it up and put it in the bin.

Wash your hands with liquid soap and warm running water.

How to collect a sample of poo (stool sample) - NHS



The best way to reduce the spread and mitigate the harm of infections such as Acute respiratory infections (ARIs) is to combine standard infection prevention and control precautions (SICPs) with vaccinations, available medical treatments, and proportionate outbreak management

SICPs are standard Infection and prevention control measures that should be used **all the time** to reduce the risk of transmitting infections.

SICPs include:

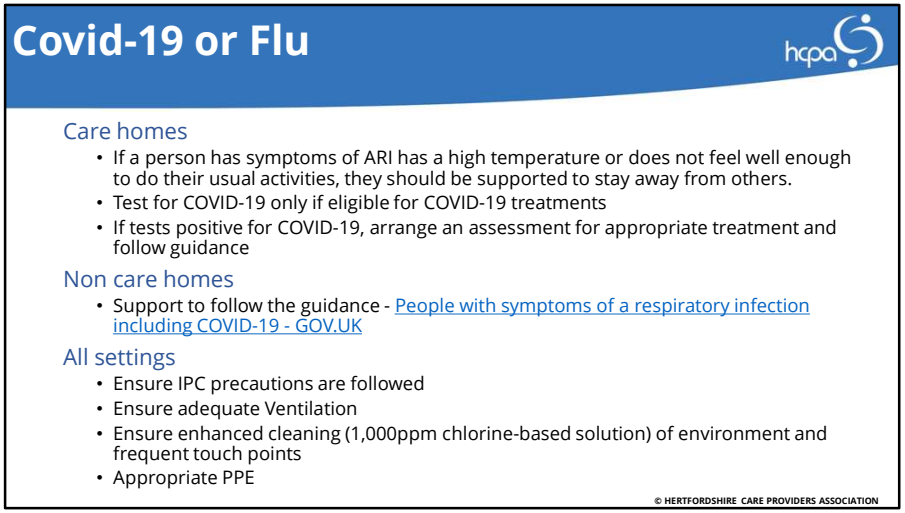
- hand hygiene between tasks and between service users with soap and water or alcohol-based hand rub
- respiratory and cough hygiene (catch it, bin it, kill it!)
- regularly letting fresh air into rooms and shared areas
- regular cleaning of the environment with particular attention to frequently touched surfaces and shared areas and equipment such as handheld digital devices and moving and assisting equipment
- appropriate use of personal protective equipment (PPE)
- correct handling and segregation of waste and infectious linen
- Adult social care clients should also be supported to contribute to SICPs by handwashing, cough hygiene and

other simple measures as appropriate.

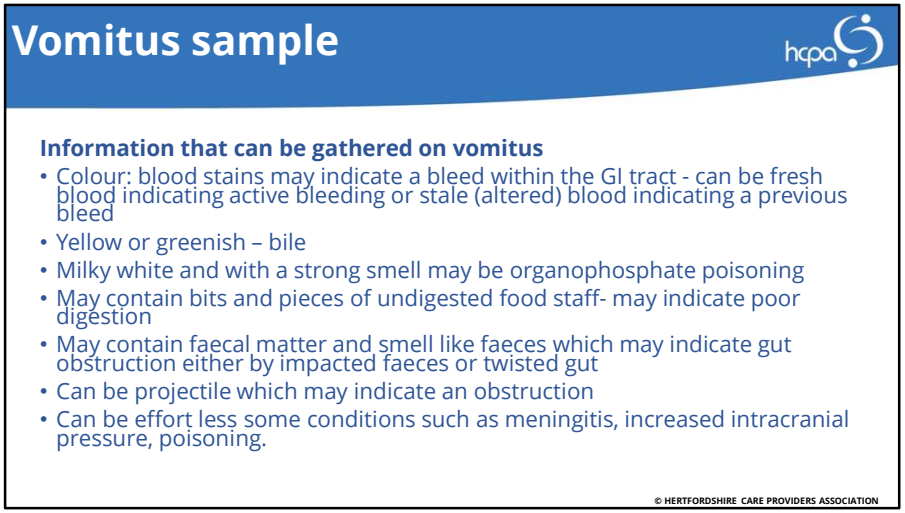
All measures to prevent and manage infections should be risk assessed, prioritised in line with the hierarchy of controls and balanced to ensure the wellbeing of service users.

For more information look on the HCPA website

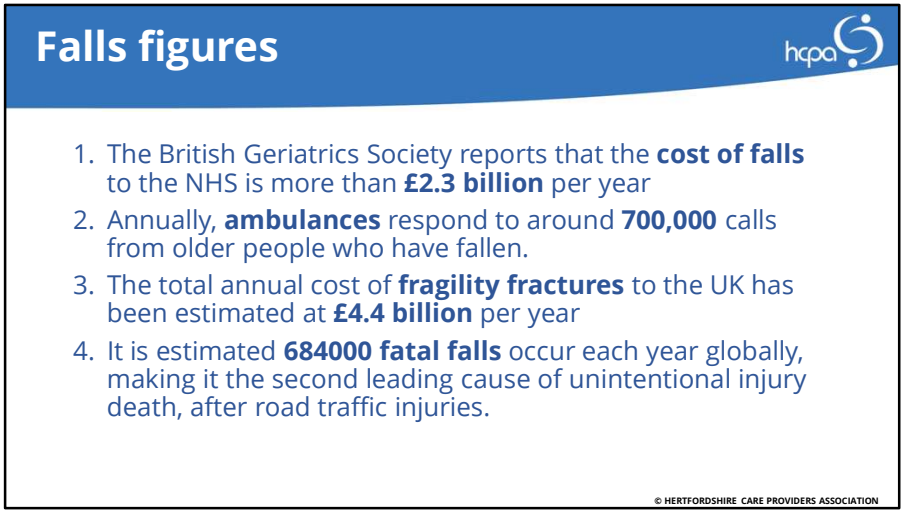
Or the government website Infection prevention and control: resource for adult social care.



So for Covid-19 or Flu
In a care home:
If a person you care for has symptoms of Acute Respiratory Infection and who has a high temperature or does not feel well enough to do their usual activities, they should be supported to stay away from others.
• Test for COVID-19 only if eligible for COVID-19 treatments.
• If they test positive for COVID-19, arrange an assessment for appropriate treatment and follow guidance. Infection prevention and control (IPC) in adult social care: acute respiratory infection (ARI) - GOV.UK (www.gov.uk)
For people who are not in a care home • Support them to follow the Govt guidance for People with symptoms of a respiratory infection including COVID-19
Ensure IPC precautions are followed:
And ensure there is
• Adequate Ventilation
• Enhanced cleaning (1,000ppm chlorine-based solution) of environment and frequent touch points
And • Appropriate PPE

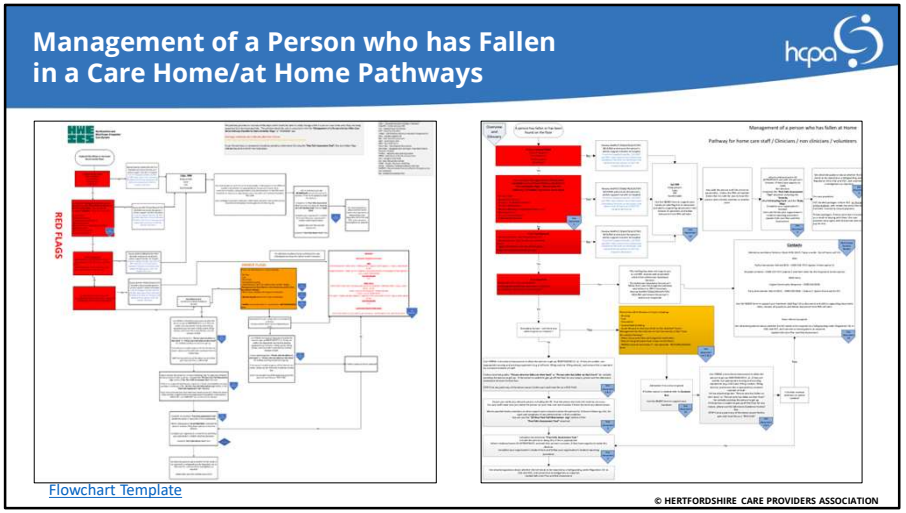


Although these samples may indicate certain conditions, they are not suitable for microbiological investigation and are unlikely to yield results relevant to the clinical management of the patient so labs do not accept vomit samples

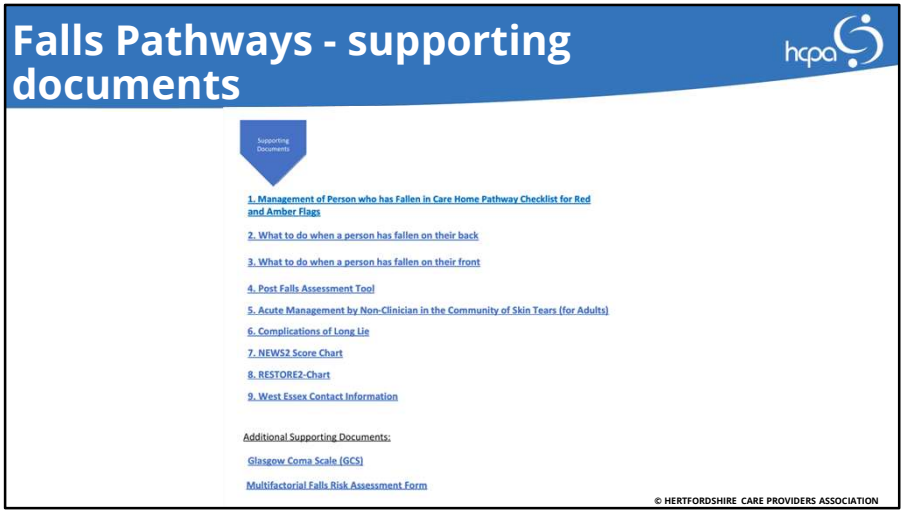


And finally, one of the most common reasons for hospital admissions is Falls So here are just a few figures to highlight the problem with falls

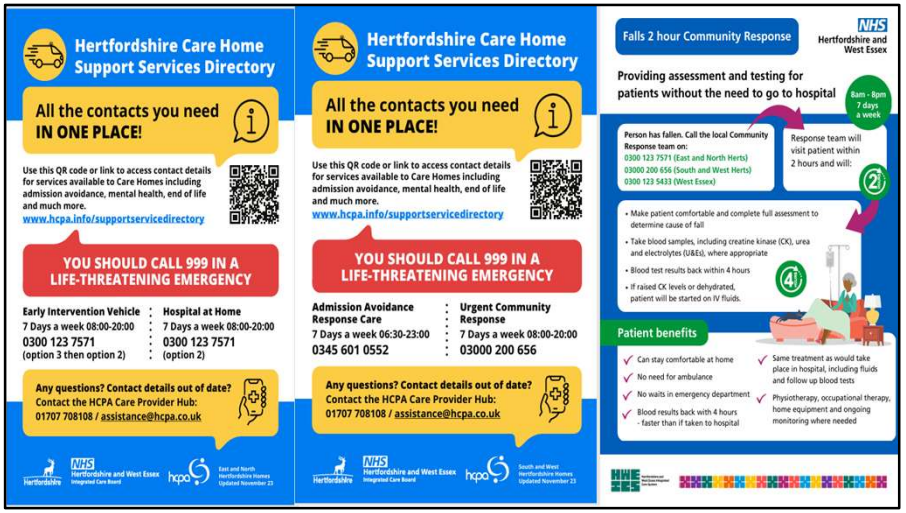
- The British Geriatrics Society reports that the **cost of falls** to the NHS is more than **£2.3 billion** per year
- Annually, **ambulances** respond to around **700,000** calls from older people who have fallen.
- The total annual cost of **fragility fractures** to the UK has been estimated at **£4.4 billion** per year
- It is estimated **684000 fatal falls** occur each year globally, making it the second leading cause of unintentional injury death, after road traffic injuries.



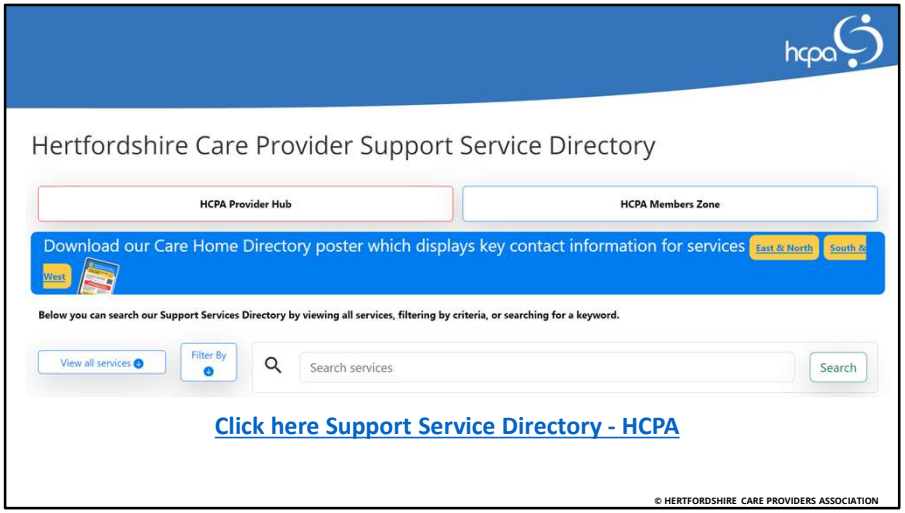
So here is a screen shot of the



The supporting documents are all on the pathway too and….



Here are the posters for the Admission Avoidance services I mentioned for the NEWS score of 5 or 6 – and for a fall if there are no Red Flags, Ie when you do not need to call 999.
This left hand one is for Care Homes in East Hertfordshire
The middle one is for Care Homes in South and West Hertfordshire
The right hand one is for all Home Care providers


hcpa
Hertfordshire Care Provider Support Service Directory
HCPA Provider Hub
HCPA Members Zone
Download our Care Home Directory poster which displays key contact information for services
East & North
South &
West
Below you can search our Support Services Directory by viewing all services, filtering by criteria, or searching for a keyword.
View all services
Filter By
Search services
Search
Click here Support Service Directory - HCPA
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Upcoming Training

HCPA has selection of fully funded training on **Preventing and Managing Deterioration During Winter including Basic Health Observations** coming up at HCPA offices for you and your staff.

Three Further Cohorts Available- **Book Now!**

- 20th November Click here to book
- 10th December Click here to book
- 21st January Click here to book

Thanks for joining us

Before you go, please leave us feedback

Scan me

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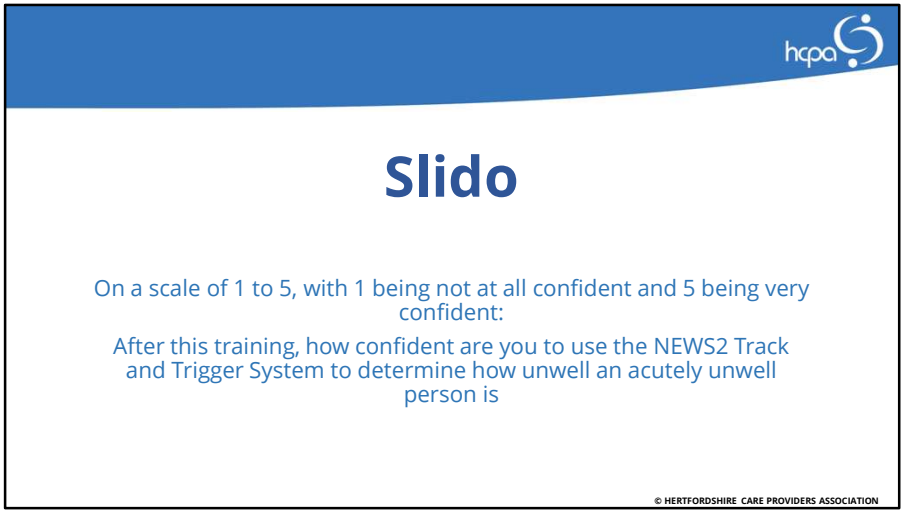
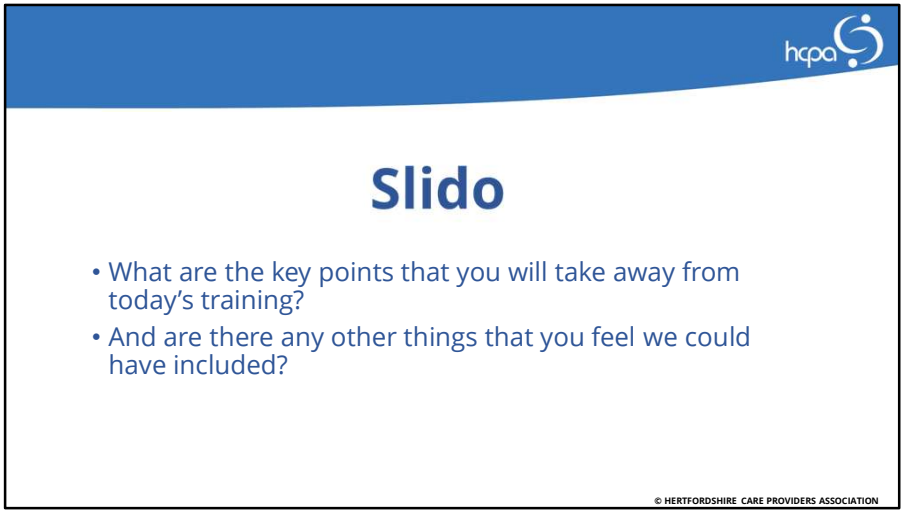
Care Professional Academy

Hertfordshire



After this training, On a scale of 1 to 5, with 1 being not at all confident and 5 being very confident:
How would you rate your knowledge of using NEWS2 Track and Trigger System to determine how unwell an acutely unwell person is



What are the key points that you will take away from today's training?
And are there any other things that you feel we could have included?

Any
Questions?