REACH

REDUCING ANTIMICROBIALS IN CARE HOMES

Study handbook

Senior staff

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REACH
REDUCING ANTIMICROBIALS IN CARE HOMES

Background information and instructions for use

This study is concerned with the quality of antimicrobial prescribing in care homes. This has important consequences for individual residents, and may affect the population as a whole due to the development of antimicrobial resistance (AMR). AMR occurs when a microorganism (such as bacteria) develops the ability to stop an antimicrobial (such as antibiotics) from working against it. This can happen when antimicrobials are used when they are not needed, or when they are not taken correctly. A number of antimicrobial prescribing decisions for care home residents may be made by telephone, and this can increase the risk of an antimicrobial being prescribed when it is not needed.

A study in Canada showed that using training sessions for nurses, videotapes, and written material alongside a decision-making tool for use in every day practice, may be effective in reducing the unnecessary use of antibiotics to treat the most common infection in care homes: urinary tract infections (UTIs). We have decided to develop a similar decision-making tool for use here in the United Kingdom (UK). As the study in Canada was carried out in 2000, we have updated the tool by searching for up-to-date evidence and by expanding it to include respiratory tract infections (RTIs), and skin and soft tissue infections (SSTIs). This involved looking at published reviews and guidelines from relevant databases, and website material from various healthcare organisations. Additionally, discussions were held within the research team, and with experts such as doctors with experience in the care of older people, and with care home staff.

The decision-making tool developed by the REACH team aims to provide care home staff with a structured method to decide if the General Practitioner (GP) needs to be contacted regarding a resident with a suspected infection, and to guide them in cases where monitoring the resident is more appropriate. Symptoms of each infection (urinary, chest and skin) are listed and must be present in certain combinations before contacting the GP. We hope that this will lead to a reduction in the number of unnecessary prescriptions for antibiotics.

The aim of the study handbook is to provide you with the information you need in relation to the intervention, and, in particular, to provide a step-by-step guide to using the decision-making tool. The study handbook is intended for use during the training session (you will be directed to the correct section during the PowerPoint presentation) and for future reference over the course of the study.

What you need to know about ANTIMICROBIAL RESISTANCE

#1 Antibiotic resistance arises when bacteria change to protect themselves against an antibiotic

#2 Resistance is increasing and the number of effective antibiotics is decreasing. This means that one day, no antibiotics may be available to fight life-threatening diseases.

#3 In the last 25 years, no new antibiotics have been developed.

What do antibiotics do?

Antibiotics treat infections caused by bacteria

Antibiotics have added 20 years to our lives

Antibiotics are losing their effectiveness

This is because we often take them when they are not needed

For example: 9 out of 10 times, a sore throat is caused by a virus.

WHY DOES IT MATTER?

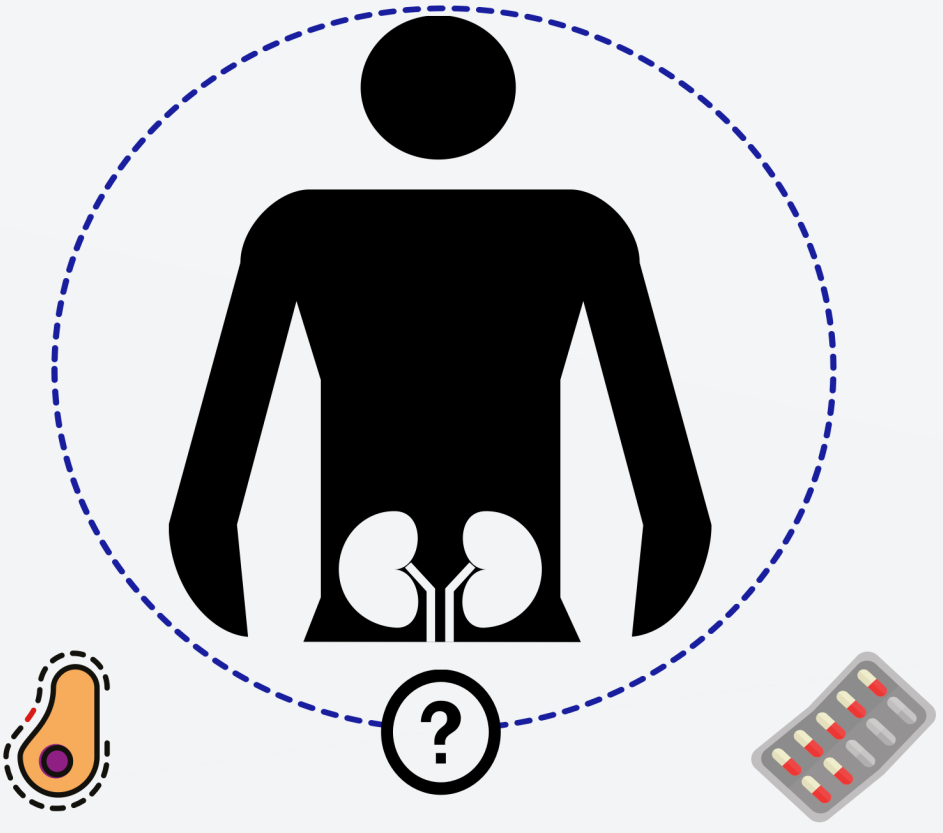
If bacteria become resistant to the antibiotics we have available, we will run out of ways to treat infection. This will result in unnecessary deaths

WHAT CAN YOU DO?

- Ensure only necessary antibiotic prescription requests are made in your place of work
- Only use them when needed
- Ensure the full course is taken

Urinary, Respiratory and Skin & Soft Tissue Infections

Urinary Tract Infection (UTI)



UTIs are common infections that involve the bladder & kidneys.

COMMON SIGNS & SYMPTOMS

New or increased urgency

New or increased frequency of urination

New or increased incontinence

Burning on urination

Blood in urine

Lower abdominal pain

Shaking/rigors

TREATMENT

Depending on the severity, some residents will require an antibiotic such as trimethoprim.

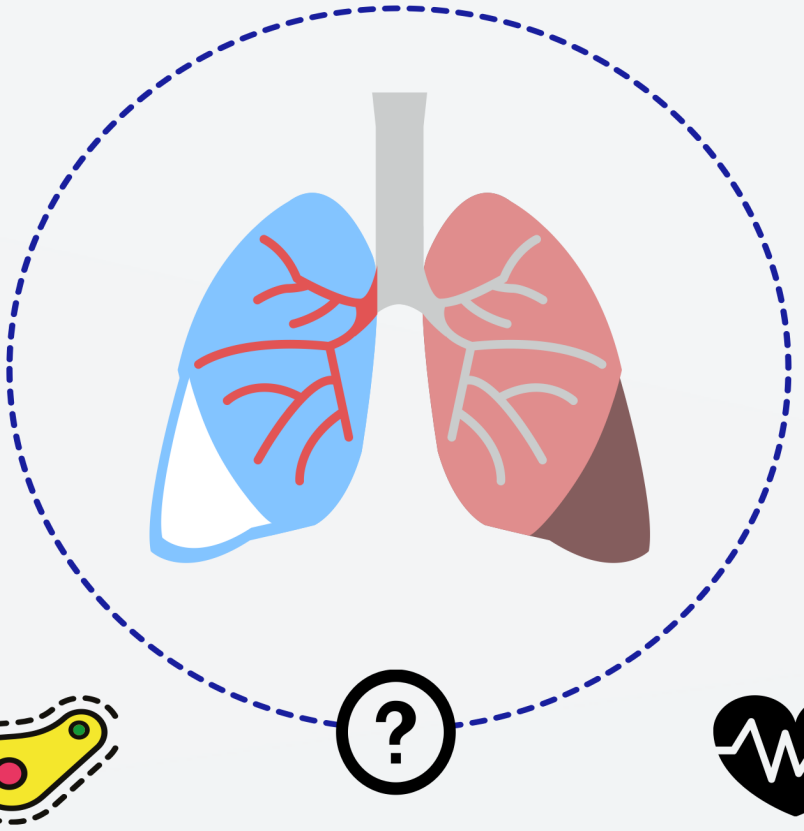
Supportive care such as analgesia (pain relief) and fluids should be offered when appropriate.

CATHETER?

Residents with a catheter will not have the usual urinary signs & symptoms of a UTI, such as new or increased incontinence. Instead, non-urinary symptoms like lower abdominal pain and shaking/rigors may be present.

Catheter-associated UTIs typically involve the kidneys and are classified as upper UTIs.

Respiratory Tract Infection (RTI)



WHAT IS AN RTI?

An RTI is an infection involving the respiratory tract. Pneumonia is a common example.

COMMON SIGNS & SYMPTOMS

New or worsening cough with sputum

Increased respiratory rate (greater than 25 breaths per minute) / rapid breathing

Shortness of breath / difficulty breathing

New or worsening confusion or delirium

TREATMENT

Viral respiratory infections (such as the common cold) do not require antibiotics and can usually be managed with appropriate analgesia (pain relief), rest and fluids.

More serious infections such as pneumonia may require antibiotics and a hospital stay

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Residents living with COPD may be more susceptible to chest infections and a minor illness can quickly turn into something more severe.

Therefore, special consideration is required for these residents when assessing their symptoms. Residents aged 65 years and over with COPD with a new or worsening cough (with or without additional symptoms) may have an infection.

Skin & Soft Tissue Infection (SSTI)

WHAT IS AN SSTI?

SSTIs are infections of the skin and soft tissue that may involve surgical wounds and ulcers, or may result in cellulitis.

COMMON SIGNS & SYMPTOMS

Pus draining from wound, skin or soft tissue

New or increased redness

New or increased swelling

New or increased tenderness or pain

New or increased warmth

TREATMENT

Depending on the severity of the infection and causative organism, antibiotics may be required.

Regular dressing changes and keeping the area clean and elevated may help.

DIABETES

Residents with diabetes may be more likely to have skin complications.

This is because high glucose levels can reduce blood flow which can change the texture and healing capacity of the skin.

Older People: Special considerations

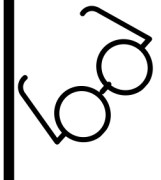
Older People and Infection

The Evidence

Body temperature is reduced in frail nursing home residents, particularly those living with dementia.

When a resident is unwell, their temperature will often remain within a normal range. This is because they may have a lower than average temperature to begin with, and because older people do not always respond to infection by having a raised temperature. The reasons for this are not widely known.

Therefore, when an older person is unwell they may show signs and symptoms of urinary, chest or skin infections, or a change in behaviour (see p.8 'Change in behaviour') without a raised temperature.

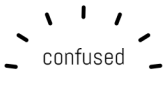


Interesting fact: Up to 50% of older people may have an infection without a raised temperature.

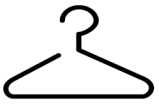
Change in behaviour

The Evidence

Commonly, older people will show a decline in mental status, a decline in function or reduced mobility when they are unwell.



A decline in mental status may be seen as new or worsening confusion / agitation / delirium, or appearing withdrawn.

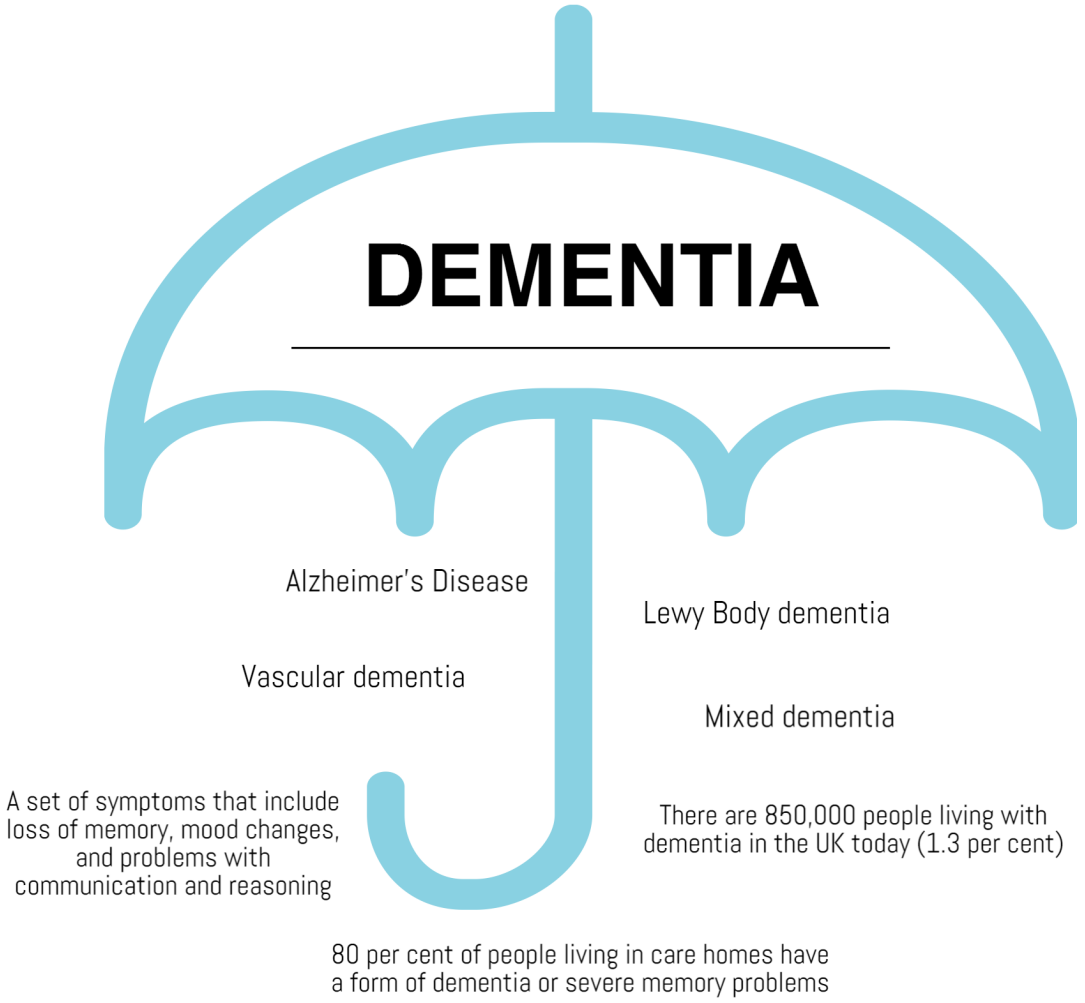


A decline in function may be the inability to carry out every day tasks (that previously caused no difficulty) such as getting dressed, going to the toilet.

Reduced mobility may be seen as an inability to walk which may result in increased risk of falling, or wanting to stay in bed.

For example, a resident with a UTI may not have any urinary symptoms at first, and may not have a fever (see p.7 'Older people & infection'). Instead they may have some non-specific symptoms such as increased confusion, reduced appetite, inability to get dressed, or they are simply 'not themselves'.

Interesting fact: in up to 3/4 of cases where an older person shows a decline in function, there is an infection present.



Dementia & Infection

- Residents with dementia may not show the usual signs of urinary, chest or skin infection at first.
- Their symptoms may be more general such as a change in or worsening of dementia symptoms, or functional decline. For example: 'off their feet'
- This may be seen as hyperactivity, for example: aggression and agitation, or hypoactivity for example: appearing withdrawn and loss of appetite.

Case scenarios
Part 1

Case scenario 1 (part 1)

What you need to know...

Mrs X, 81, care home resident, suffers from mild dementia, usually well, no catheter

Mrs X has been living in the nursing home for five years and is well known to staff.

It is a Monday afternoon and you are in the middle of a long day shift. A colleague comes to you with some concerns regarding Mrs X.

Mrs X has not been eating as much as she usually does today. She left some of her breakfast and half of her lunch. This is unusual for her.

When you came to help bring her into the lounge for her favourite afternoon TV programmes she didn't want to go.

You think something is wrong.

What would you do in this scenario? Please feel free to use the space provided below to document your thoughts and views regarding this scenario.

Case scenario 2 (part 1)

What you need to know...

Mr Y, 79, high blood pressure, frequent chest infections

Mr Y has been living in the care home for a year. His family are regular visitors and wish to be involved in his care.

You arrive into work to begin a day shift. The night time staff tell you, during handover, that Mr Y has had a worsening cough throughout the night which kept him awake.

As a result, Mr Y is slightly grumpy and tired this morning and wants to stay in bed for a while.

At lunch time, a colleague comes to you to tell you that his cough has remained the same and he is still in bed.

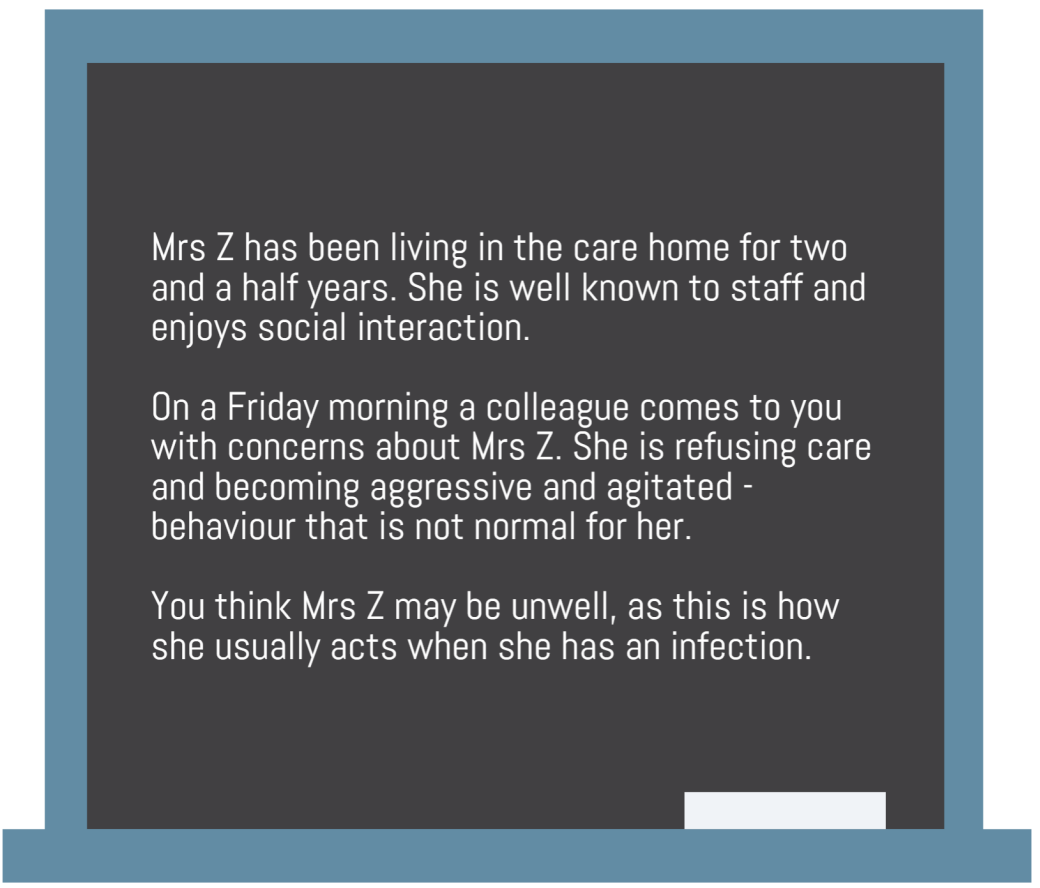
His family are anxious about any chest symptoms he develops due to his history of frequent chest infections.

What would you do in this scenario? Please feel free to use the space provided below to document your thoughts and views regarding this scenario.

Case scenario 3 (part 1)

What you need to know...

Mrs Z, 88, moderate dementia, multiple morbidities including high blood pressure & asthma



What would you do in this scenario? Please feel free to use the space provided below to document your thoughts and views regarding this scenario.

Decision-making tool and step-by-step guide

Box 1

<u>Resident has one or more new / worsening symptoms making them unwell</u>

Non specific: suspected fever, change in behaviour (e.g. delirium, confusion/agitation, un-cooperative, reduced mobility/'off legs', loss of appetite, withdrawn),

AND/OR

Urinary / Chest / Skin symptoms: see below

Step 1
Assess resident's temperature

Box 2

Resident's temperature greater than 37.9°C

Box 3

Repeat **Step 1** after **6** hours.

If resident's temperature remains greater than 37.9°C after **12** hours, phone GP

Box 4

Resident's temperature less than or equal to 37.9°C

Box 5

Step 2
Identify resident's symptoms

Box 6

Box 7

Urinary symptoms

Resident (without catheter) has burning on urination **or 2 or more** of the following:

- New or increased urgency
- New or increased frequency
- New or increased incontinence
- Blood in urine
- Lower abdominal pain
- Shaking/rigors

Yes → Consider phoning GP

No → If resident's temperature is 37.3—37.9°C repeat **Step 1** after **6** hours

Box 10

Chest symptoms

Resident has a new or worsening 'chesty' cough with sputum and **1 or more** of the following:

- Respiratory rate greater than 25 / rapid breathing
- Shortness of breath / difficulty breathing
- New onset confusion / delirium
- Resident >65 years old with COPD

Box 8

Yes → Consider phoning GP

No → If resident's temperature is 37.3—37.9°C repeat **Step 1** after **6** hours

Skin symptoms

Resident has pus draining from wound, skin or soft tissue

OR

Resident has **2 or more** of the following:

- New or increased redness
- New or increased tenderness / pain
- New or increased warmth
- New or increased swelling

Box 9

Yes → Consider phoning GP

No → If resident's temperature is 37.3—37.9°C repeat **Step 1** after **6** hours

Box 11

Provide supportive care for all residents

Monitor residents' symptoms closely—if resident's condition deteriorates, **repeat Step 1**

Offer analgesia if appropriate

Encourage fluids

Box 12

REACH
REDUCING ANTIMICROBIALS IN CARE HOMES

Guide to using the decision-making tool

Welcome to the guide to using decision-making tool. Here you will find a step-by-step explanation of each of the steps within the decision-making tool, with key points explained to make it easier to use in practice.

The aim of the decision-making tool is to provide you with a structured method to decide if a call to the GP needs to be made regarding a resident with a suspected infection, and to guide you in cases where monitoring the resident is more appropriate. Symptoms of each infection (urinary, chest and skin) are listed and must be present in certain combinations before contacting the GP. We hope that this will lead to a reduction in the number of unnecessary prescriptions for antibiotics.

This guide deals with each section of the decision-making tool individually and explains the information in more detail. Please refer to the copy of the decision-making tool attached (with numbered boxes) when reading this document.

Box 1

<u>Resident has one or more new / worsening symptoms making them unwell</u>

Non-specific: suspected fever, change in behaviour (e.g. delirium, confusion/agitation, un-cooperative, reduced mobility/'off legs', loss of appetite, withdrawn),

AND/OR

Urinary symptoms: see below

Chest symptoms: see below

Skin symptoms: see below

This box is the starting point for using the decision-making tool. Most often, older people and those with dementia will not show the usual signs and symptoms of infection (See p. 5 & 6: Older people and infection & Change in behaviour). Instead, the first indication that they are unwell is a change in behaviour. Therefore, we have included some non-specific indications that the resident may be unwell. This list is not exhaustive and you will know from your close relationship with residents, and unique knowledge of them, when there is a change in behaviour.

If the resident is unwell, fever may or may not be present (See p.5: Older people and infection). If a resident has a fever, you may notice they appear warm or complain of being too hot. This may alert you to begin using the decision-making tool.

On other occasions, a specific urinary, chest or skin symptom may be the first thing that alerts you to the fact that a resident is unwell. We have included these symptoms in Box 1 for this reason. Please also familiarise yourself with the signs and symptoms specific to urinary, chest and skin infections in Boxes 7-9 as this will make using the decision-making tool easier.

Box 2

Step 1
Assess resident's temperature

When you suspect a resident is unwell and may have an infection, we would like you to take their temperature. Whilst older people may not always have a raised temperature, it is useful to have an idea what the body temperature is. It is the extremes of high and low temperatures which indicate residents who are really unwell, and so we wish to identify these residents at an early stage. Extremely high temperatures (for example over 39°C) will require medical attention as soon as possible. Equally, residents with an extremely low temperature (for example, below 36°C) may also be seriously unwell and it is important that these residents receive medical attention as soon as possible.

If at any stage you believe a resident is seriously unwell, regardless of temperature, contact a more senior member of staff or the GP.

Box 3

Resident's temperature greater than 37.9°C

If the resident's temperature is greater than 37.9°C, we would encourage you to monitor the resident closely. This is because these residents may be seriously unwell and require medical attention. The decision-making tool will direct you to Box 4 if the resident's temperature is greater than 37.9°C.

If at any stage you believe a resident is seriously unwell, regardless of temperature, contact a more senior member of staff or the GP.

Box 4

Repeat **Step 1** after **6** hours.

If resident's temperature remains greater than 37.9°C after **12** hours, phone GP

In order to monitor residents with a high temperature regularly, please measure their temperature again after 6 hours. Please note: this is the maximum time period we suggest. If you feel a resident is deteriorating, do not hesitate to measure their temperature before 6 hours have passed, and contact a more senior member of staff or the GP if you are concerned.

If a resident still has a temperature of 37.9°C or greater after **12** hours, phone the GP. At all times, be mindful of any other symptoms these residents may develop during this monitoring phase, such as urinary, chest or skin symptoms.

Box 5

Resident's temperature less than or equal to 37.9°C

If a resident's temperature is less than or equal to 37.9°C, the next step is to look for other symptoms that may indicate the kind of infection that is causing the resident to appear unwell.

Box 6

Step 2
Identify resident's symptoms

It is important to identify any other symptoms a resident may have, particularly if the signs which alerted you to the fact they might be unwell are non-specific such as a change in behaviour.

Box 7

Urinary symptoms

Resident (without catheter) has burning on urination **or 2 or more** of the following:

· New or increased urgency
· New or increased frequency
· New or increased incontinence
· Blood in urine
· Lower abdominal pain
· Shaking/rigors

Urinary tract infections (UTIs) are the most common infection in care homes. The symptoms included in Box 7 are evidence-based. This means that they are based on evidence from clinical research studies. We recognise that for residents with dementia and those using incontinence pads, it will be difficult to determine if there is burning on urination, or new/increased urgency, frequency or incontinence. However, evidence shows that residents without a catheter are unlikely to have a UTI without burning on urination or 2 or more of the symptoms above. Symptoms such as change in colour and smell of urine are commonly misconceived indicators of the presence of a UTI and so we discourage reliance on these symptoms as they may drive inappropriate prescribing of antibiotics.

Box 8

Chest symptoms

Resident has a new or worsening 'chesty' cough with sputum and 1 or more of the following:

· Respiratory rate greater than 25 / rapid breathing
· Shortness of breath / difficulty breathing
· New onset confusion / delirium
· Resident >65 years old with COPD

Respiratory tract infections (RTIs) may be viral or bacterial. It is important to look at the symptoms and determine if medical attention is required. For example, viral RTIs are the most common cause of upper respiratory symptoms and antibiotics are not effective for viral infections. Symptoms of a viral illness often appear over several hours without prior illness. Common viral illnesses include colds and the flu. Bacterial respiratory tract infections are less common than viral infections. Bacterial infections may develop after a viral illness such as a cold or the flu, and pneumonia is the most common bacterial infection of the lower respiratory system.

In the decision-making tool, special consideration is given to residents with Chronic Obstructive Pulmonary Disease (COPD) aged 65 and older, as this condition predisposes these residents to bacterial RTIs which can result in a worsening of COPD symptoms. Therefore, those with COPD aged 65 and older may have an infection if a worsening chesty cough with sputum is observed.

Box 9

Skin symptoms

Resident has pus draining from wound, skin or soft tissue

OR

Resident has 2 or more of the following:

· New or increased redness
· New or increased tenderness / pain
· New or increased warmth
· New or increased swelling

Skin and soft tissue infections (SSTIs) may occur after a resident has surgery and the wound becomes infected, or may occur when an ulcer or bed sore becomes infected. Symptoms can be visible such as pus, redness and swelling, or the affected area can feel warm, or the resident may complain of tenderness/pain. Regular checking of the skin can help to catch early signs of infection before it becomes serious.

Box 10

Phone GP

The decision-making tool provides you with a checklist for each infection. If the resident is showing specific combinations of signs and symptoms of an infection, the next step is to contact the GP or a more senior member of staff. For example, this may be 2 or more UTI symptoms, or one skin symptom such as pus draining from a wound. The individual symptom boxes (boxes 7-9) will tell you how many symptoms need to be present and in what combination, before you contact the GP or a more senior member of staff.

The decision-making tool cannot account for individual residents who are known not to present in the usual way when they have an infection, therefore we suggest that whilst using the decision-making tool, you also use your unique knowledge of each resident to make your judgement.

Box 11

If resident's temperature is 37.3—37.9°C
repeat **Step 1** after **6** hours

This box is set aside for residents who may have some symptoms of infection, or non-specific indicators of being unwell, but do not meet the criteria for contacting the GP. If the resident's temperature is within the range 37.3-37.9°C, repeat Step 1 after 6 hours. Please note: this is the maximum time period we suggest. If you feel a resident is deteriorating, do not hesitate to repeat Step 1 before 6 hours have passed, and contact a more senior member of staff or the GP if you are concerned.

Box 12

Provide supportive care for all residents
Monitor residents' symptoms closely—if resident's condition deteriorates, **repeat Step 1**
Offer analgesia if appropriate
Encourage fluids

Please provide supportive care for all residents. It is important to monitor residents closely if you believe they may be unwell and are acting out of character. This is because older people can deteriorate rapidly, especially if they are exhibiting some signs that something is not quite right. Analgesia such as paracetamol may keep a resident comfortable. Encouraging fluid intake can alleviate discomfort, especially if urinary symptoms are present.

Case scenarios
Part 2

Case scenario 1 (part 2)

What you need to know...

Mrs X, 81, care home resident, suffers from mild dementia, usually well, no catheter

Mrs X has been living in the nursing home for five years and is well known to staff.

It is a Monday afternoon and you are in the middle of a long day shift. A colleague comes to you with some concerns regarding Mrs X.

Mrs X has not been eating as much as she usually does today. She left some of her breakfast and half of her lunch. This is unusual for her.

When you came to help bring her into the lounge for her favourite afternoon TV programmes she didn't want to go.

You think something is wrong.

You decide to perform some observations. Mrs X has a temperature of 37.3°C. She appears to be more confused than usual and is running to the toilet a lot.

With the help of the decision-making tool, what steps do you take next? Please feel free to use the space provided below to make any relevant notes.

Case scenario 2 (part 2)

What you need to know...

Mr Y, 79, high blood pressure, frequent chest infections

Mr Y has been living in the care home for a year. His family are regular visitors and wish to be involved in his care.

You arrive into work to begin a day shift. The night time staff tell you, during handover, that Mr Y has had a worsening cough throughout the night which kept him awake.

As a result, Mr Y is slightly grumpy and tired this morning and wants to stay in bed for a while.

At lunch time, a colleague comes to you to tell you that his cough has remained the same and he is still in bed.

His family are anxious about any chest symptoms he develops due to his history of frequent chest infections.

You decide to examine Mr Y.

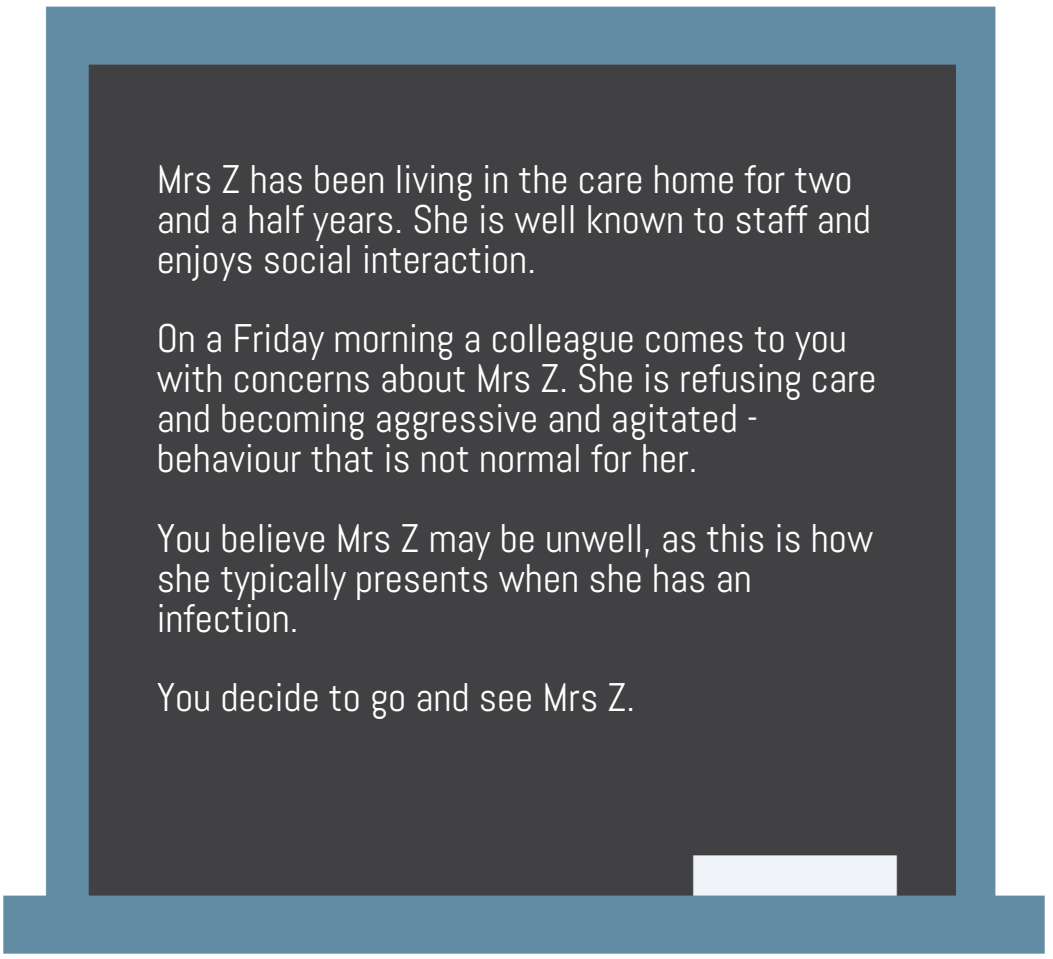
He appears slightly grumpy and his temperature is 37.8°C. His cough is not productive (chesty), just frequent/irritating.

With the help of the decision-making tool, what steps do you take next? Please feel free to use the space provided to make any relevant notes.

Case scenario 3 (part 2)

What you need to know...

Mrs Z, 88, moderate dementia, multiple morbidities including high blood pressure & asthma

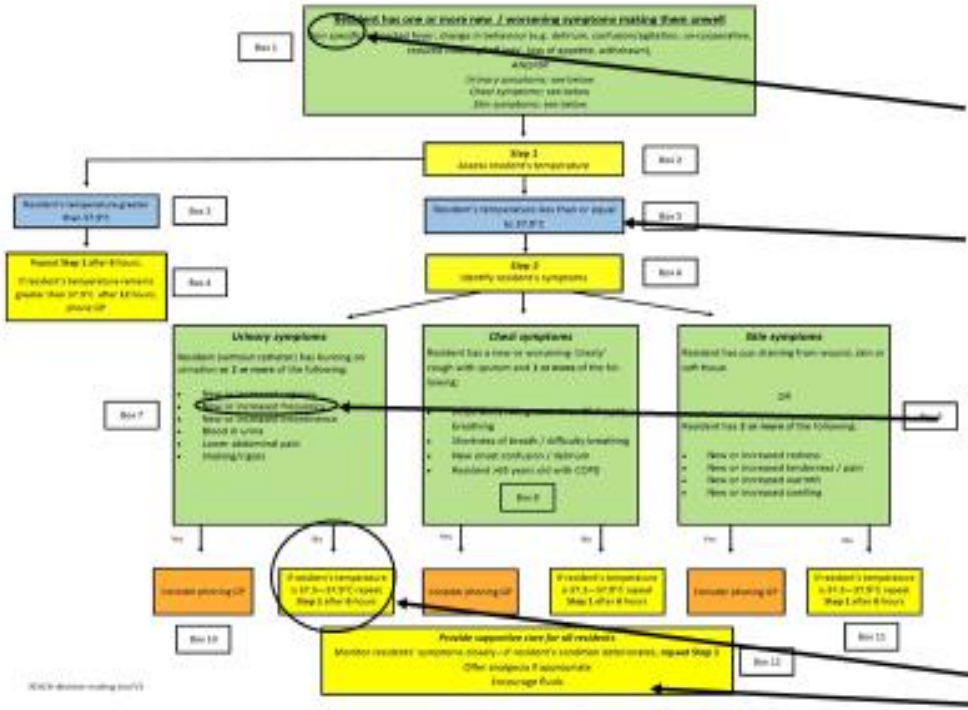


You decide to do some observations. Mrs Z has a temperature of 37.5°C. On examination you do not find any signs of a urinary or chest infection, however, you notice that one of her legs is red, shiny and warm.

With the help of the decision-making tool, what steps to you take next? Please feel free to use the space provided below to make any relevant notes.

Worked examples

Case scenario 1 – worked example



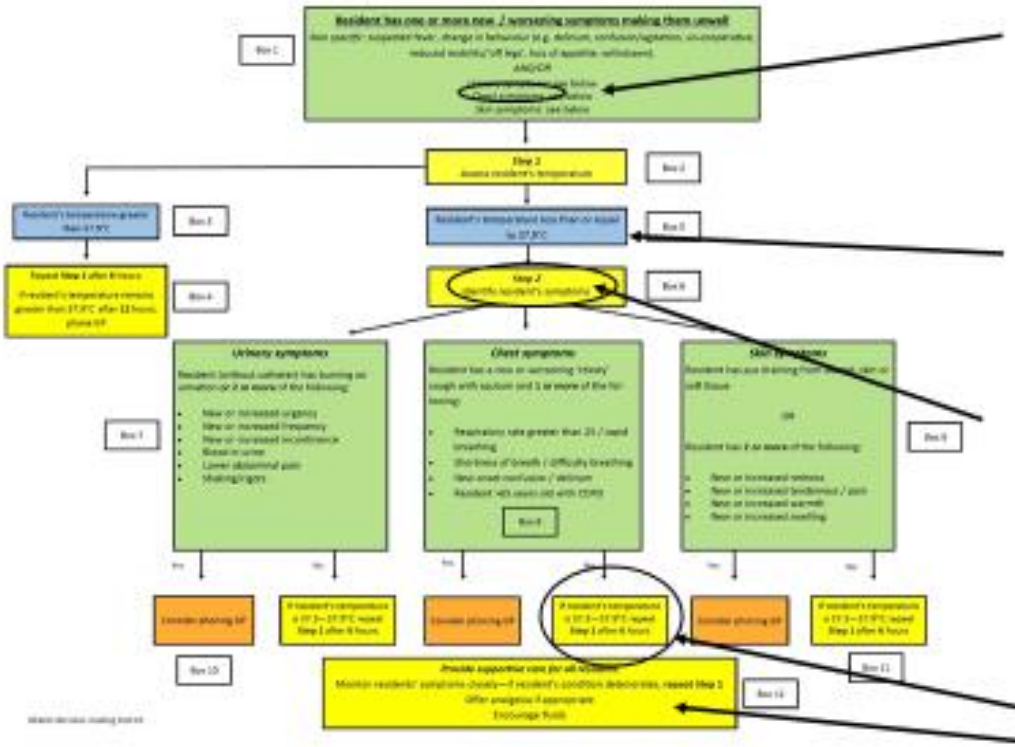
Mrs X had ***reduced appetite*** and ***appeared withdrawn*** at first

Mrs X has a temperature of ***37.3°C***

Specific symptoms: ***running to the toilet a lot*** (one urinary symptom)

OUTCOME: Should repeat **Step 1** after ***6 hours*** and ***offer fluids/pain relief.***

Case scenario 2 – worked example



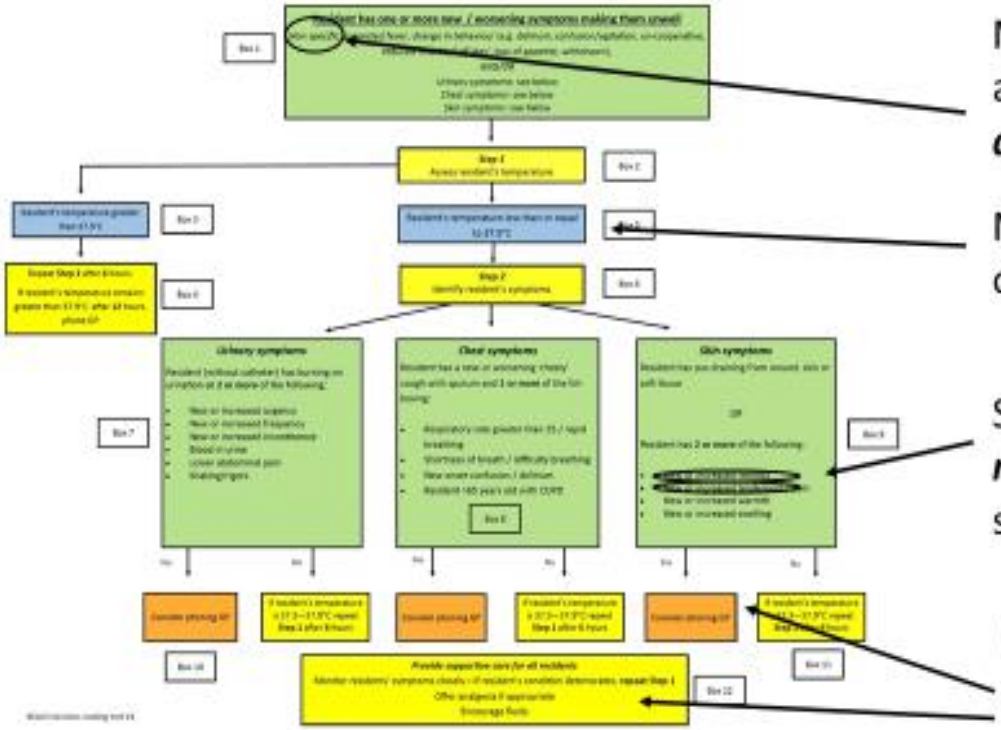
Mr Y had a ***cough*** at first.

Mr Y has a temperature of ***37.8°C***.

Specific symptoms: ***irritating cough but not chesty (productive).***

OUTCOME: Should repeat **Step 1** after ***6 hours*** and ***offer fluids/pain relief.***

Case scenario 3 – worked example



Mrs Z was ***refusing care*** and was ***aggressive and agitated*** at first.

Mrs Z has a temperature of ***37.5°C***

Specific symptoms: ***new redness and warmth*** (two skin symptoms)

OUTCOME: Should ***phone the GP*** and ***offer fluids/pain relief.***

The SBAR tool

The SBAR Tool

S
Situation

- Your name and job role
- Identify resident you are calling about
- Describe your concern briefy - including when started

B
Background

- Age, DOB & relevant health conditions
- How long has the resident lived in the care home?
- Other relevant medical information such as current medications

---

A
Assessment

- Temperature
- Signs & symptoms
- Concerns
- What do you think the problem might be?

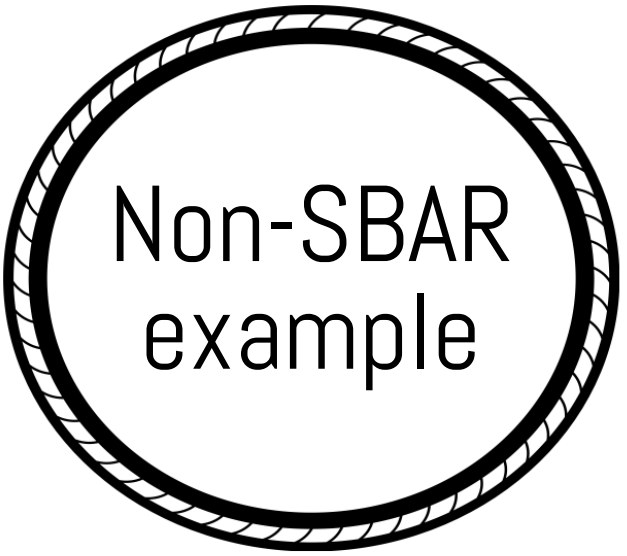
R
Recommendation

- What do you think needs to be done?
- Explain what you need
- Make suggestions
- Make sure you are clear about what will happen next

Non-SBAR & SBAR examples

Non-SBAR example

Doctor:	Hi, this is Dr Smith – was someone looking for me?
Nurse:	Hello, I'm ringing about a resident
Doctor:	What's the problem?
Nurse:	He seems a bit off
Doctor:	In what way?
Nurse:	Hold on, I'll get my notes – he seems to be a bit confused
Doctor:	What is his temperature?
Nurse:	Hold on, I'll have a look – his temperature is 37.6°C
Doctor:	OK, what is his fluid intake like?
Nurse:	Not sure, let me get his fluid charts – …sorry can't find it
Doctor:	OK, don't worry I might call up soon and review him



Doctor:	Hi, this is Dr Smith – was someone looking for me?
Senior care assistant:	Hello, I'm ringing about a resident
Doctor:	What's the problem?
Senior care assistant:	He seems a bit off
Doctor:	In what way?
Senior care assistant:	Hold on, I'll get my notes – he seems to be a bit confused
Doctor:	What is his temperature?
Senior care assistant:	Hold on, I'll have a look – his temperature is 37.6°C
Doctor:	OK, what is his fluid intake like?
Senior care assistant:	Not sure, let me get his fluid charts – …sorry can't find it
Doctor:	OK, don't worry I might call up soon and review him

SBAR example

Doctor: Hi, this is Dr Smith from Valley GP Surgery – are you wanting to speak to me?

Nurse:

Situation

Hi, yes this is Sue - staff nurse in Eden Care Home, I'm calling about Mr Jones, he has been acting out of character with increasing, worsening confusion.

Background

He has been with us here in Eden Care Home for six months. He is normally well, has no cognitive impairment and has Type 2 diabetes. This morning we noticed he was appearing confused and agitated.

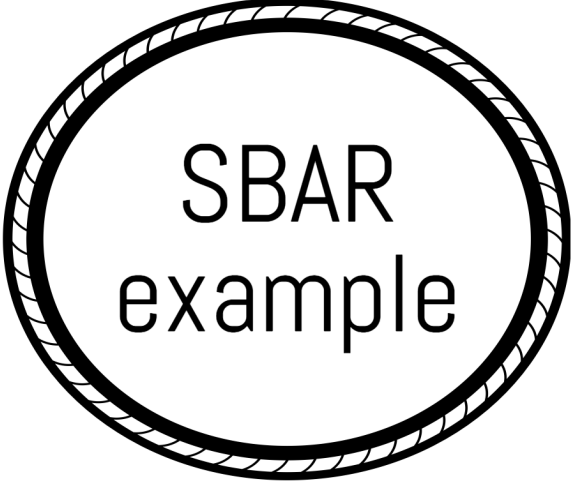
Assessment

He is refusing to drink any fluids and is off his food. At the moment he is alert, but is complaining of lower abdominal pain and urgency when passing urine. His temp is 37.6°C. I think he may have a urinary tract infection.

Recommendation

I will try to get him to drink more fluids and perhaps use paracetamol if he needs it. If there is no improvement within four hours I would like you to make a visit.

Doctor: OK, I am happy with this. I will make a visit this afternoon if there is no improvement.



Doctor: Hi, this is Dr Smith from Valley GP Surgery – are you wanting to speak to me?

Situation

Senior care assistant: Hi, yes this is Sue - senior care assistant in Eden Care Home, I'm calling about Mr Jones, he has been acting out of character with increasing, worsening confusion.

Background

He has been with us here in Eden Care Home for six months. He is normally well, has no cognitive impairment and has Type 2 diabetes. This morning we noticed he was appearing confused and agitated.

Assessment

He is refusing to drink any fluids and is off his food. At the moment he is alert, but is complaining of lower abdominal pain, and his temp is 37.6°C. I think he may have a urinary tract infection.

Recommendation

I will try and get him to drink more fluids and perhaps use paracetamol if he needs it. If there is no improvement within four hours I would like you to make a visit.

Doctor: OK, I am happy with this. If there is no improvement within four hours I will make a visit.

Conversations 1 & 2

Conversation 1

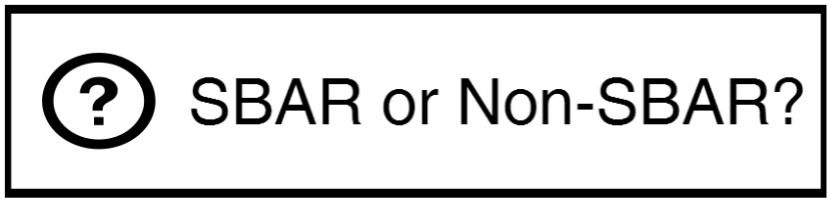
Doctor: Hi, this is Dr Roberts – was someone looking for me?

Nurse: Hello, yes it was me, my name is Sarah and I'm a nurse at Oakland Care Home, I'm ringing about Mr Henderson who has been living in the care home for 2 years and has mild dementia and Type 2 diabetes. He has been acting more confused than usual. I think he has an infection.

Doctor: Hi Sarah, does Mr Henderson have any other symptoms?

Nurse: His temperature is 38.4°C and he has been off his food - I started work 2 hours ago but my colleagues told me he didn't eat dinner last night. He has been drinking a few sips of water. He appears to have a red patch on one of his legs which is hot and swollen. I would like Mr Henderson to be examined as I am concerned about his symptoms, I will try to push fluid and use paracetamol if needs be.

Doctor: OK, can you offer paracetamol for his fever and encourage fluids. Raise the affected leg and monitor his temperature. If his temperature remains high or the redness and swelling spreads, contact me as soon as possible. I will make a visit later this afternoon.



Please use the space below to record the reasons for your answer.

Conversation 2

Doctor: Hi, this is Dr Jones – was someone looking for me?

Nurse: Hello, yes, it was me, I'm ringing about a resident

Doctor: OK, what's the problem?

Nurse: I don't know, I think you need to make a visit

Doctor: What is wrong with the resident?

Nurse: He has a fever. He has diabetes I think, hold on, let me double check-

Doctor: What is his temperature?

Nurse: I'll have a look – I can't find his notes, it was around 38°C

Doctor: OK, is the resident eating and drinking?

Nurse: Not sure, let me ask a colleague- ...apparently he didn't eat his breakfast

Doctor: How long have the symptoms being going on?

Nurse: I only started two hours ago but I think this has been going on since yesterday

Doctor: I'm very busy today. Phone back later if there is no change

Please use the space below to record the reasons for your answer.

SBAR role play

Box 1

Resident has one or more new / worsening symptoms making them unwell

Non specific: suspected fever, change in behaviour (e.g. delirium, confusion/agitation, un-cooperative, reduced mobility/'off legs', loss of appetite, withdrawn),

AND/OR

Urinary / Chest / Skin symptoms: see below

Step 1
Assess resident's temperature

Box 2

Resident's temperature greater than 37.9°C

Box 3

Repeat **Step 1** after **6** hours.

If resident's temperature remains greater than 37.9°C after **12** hours, phone GP

Box 4

Resident's temperature less than or equal to 37.9°C

Box 5

Step 2
Identify resident's symptoms

Box 6

Box 7

Urinary symptoms

Resident (without catheter) has burning on urination **or 2 or more** of the following:

- New or increased urgency
- New or increased frequency
- New or increased incontinence
- Blood in urine
- Lower abdominal pain
- Shaking/rigors

Yes

Consider phoning GP

Box 10

No

If resident's temperature is 37.3—37.9°C repeat **Step 1** after **6** hours

Chest symptoms

Resident has a new or worsening 'chesty' cough with sputum and **1 or more** of the following:

- Respiratory rate greater than 25 / rapid breathing
- Shortness of breath / difficulty breathing
- New onset confusion / delirium
- Resident >65 years old with COPD

Box 8

Yes

Consider phoning GP

No

If resident's temperature is 37.3—37.9°C repeat **Step 1** after **6** hours

Skin symptoms

Resident has pus draining from wound, skin or soft tissue

OR

Resident has **2 or more** of the following:

- New or increased redness
- New or increased tenderness / pain
- New or increased warmth
- New or increased swelling

Box 9

Yes

Consider phoning GP

No

If resident's temperature is 37.3—37.9°C repeat **Step 1** after **6** hours

Box 11

Provide supportive care for all residents

Monitor residents' symptoms closely—if resident's condition deteriorates, **repeat Step 1**

Offer analgesia if appropriate

Encourage fluids

Box 12

The SBAR Tool

S
Situation

- Your name and job role
- Identify resident you are calling about
- Describe your concern briefy - including when started

B
Background

- Age, DOB & relevant health conditions
- How long has the resident lived in the care home?
- Other relevant medical information such as current medications

---

A
Assessment

- Temperature
- Signs & symptoms
- Concerns
- What do you think the problem might be?

R
Recommendation

- What do you think needs to be done?
- Explain what you need
- Make suggestions
- Make sure you are clear about what will happen next

Case scenario 1 (part 2)

What you need to know...

Mrs X, 81, care home resident, suffers from mild dementia, usually well, no catheter

Mrs X has been living in the nursing home for five years and is well known to staff.

It is a Monday afternoon and you are in the middle of a long day shift. A colleague comes to you with some concerns regarding Mrs X.

Mrs X has not been eating as much as she usually does today. She left some of her breakfast and half of her lunch. This is unusual for her.

When you came to help bring her into the lounge for her favourite afternoon TV programmes she didn't want to go.

You think something is wrong.

You decide to perform some observations. Mrs X has a temperature of 37.3°C. She appears to be more confused than usual and is running to the toilet a lot.

With the help of the decision-making tool, what steps do you take next? Please feel free to use the space provided below to make any relevant notes.

Using the decision-making tool form

CARE HOME ID

REACH
REDUCING ANTIMICROBIALS IN CARE HOMES

Resident ID

Cut here

This form is for you to record when and if you use the REACH decision aid in making a decision about when to contact the GP when you suspect a resident has an infection. We also would like to know if you do not use the aid and the reasons why. One form is a single record related to a single suspected infection in a resident. The details of this decision may not be known on the same day and so you may need to come back to this form later.

Section 1. Date and time when infection first suspected

Date (DD/MM/YY)	Time (24HR)

Section 2. What infection did you suspect in the resident?

Urinary tract	Respiratory tract	Skin & soft tissue	Don't know	Other*
☐	☐	☐	☐	☐

*Please specify (please use block capitals)

Section 3. Did you use the REACH decision-making aid?

Yes ☐ | No ☐ (Please remember to also complete section 6)

Section 4. What action(s) did you take? (Please tick all that apply)

No action	I continued to monitor/provide supportive care (Time: 24hr /Date: DD/MM/YY)	I informed a nurse/senior carer (Time: 24hr/Date: DD/MM/YY)	I contacted the GP (Time: 24hr/Date: DD/MM/YY)	Other (e.g. contact with district nurse)
☐	☐	☐	Yes ☐ (Complete section 5)	☐ Please specify
	☐	☐		
	☐	☐	No ☐	

Section 5. What action(s) did the GP take? (Please tick all that apply)

The GP visited the resident at the care home	Yes ☐	No ☐
The GP prescribed antibiotics	Yes ☐	No ☐
The GP advised to continue to monitor and/or provide supportive care	Yes* ☐	No ☐
*If yes, the GP later prescribed antibiotics	Yes ☐	No ☐
Other (please specify using block capitals)		☐

Section 6. Why did you not use the REACH decision aid? (Please tick all that apply)

I had no time ☐	I over-ruled decision-aid ☐	Other* ☐

*Please specify (please use block capitals)

Section 7. Form completed by

Staff name (block capitals)		Date (DD/MM/YY)	
Staff signature			

Serious adverse events

Reporting adverse events

What is an adverse event?

Any untoward medical occurrence in a resident which results in death or hospitalisation.

We do not anticipate that this study will result in any adverse events, but this is the procedure we would like you to follow whenever an adverse event occurs within the care home while the study is ongoing. We will examine the information and decide if the event was related to our study.

What do we want to know?

We want to know the kind of event that led to the death or hospitalisation of the resident. For example, a fall or infection.

We want to know when this event happened.

If the resident was hospitalised, we want to know the date on which they were admitted to hospital and the date of discharge (if known).

If the resident died, we want to know the date and cause of death (if known).

Please email or fax research team within 72 hours of an adverse event.

REACHSAE@QUB.AC.UK Fax: 02890247794

The Chief Investigator (Professor Carmel Hughes) will look at the information we receive and take appropriate action if required.