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Norfolk and Waveney Integrated Care System



Norfolk Fire and
Rescue Service



Norfolk and Waveney

Fire Risk with use of Emollients

This presentation has been created following joint working between the ICB, Adult Social Care, West Community Learning Disabilities Team and Norfolk Fire and Rescue Service.

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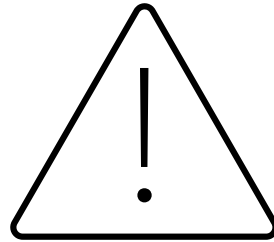
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Please be advised....



This training contains content that some people may find distressing, including real life imagery and discussion related to fire injury and fatalities involving emollients.

Background



Emollients are safely used by millions of people every day to help manage dry, itchy or scaly skin conditions. They are moisturisers applied directly to the skin and can come in many forms including creams, lotions, ointment and sprays. They may be prescribed but are also available from pharmacies and supermarkets without a prescription.



Since 2010, there have been 56 confirmed fire fatalities in the UK where emollients are thought to have been involved in the rapid development of a fire.



All the people who died were older, many had restricted mobility, and a number had care plans in place.



In 79% of these fatalities, smoking materials such as matches, lighters and cigarettes were found to be the ignition source of the fire.

Case Studies



Within the West Community Learning Disabilities Team alone, there have been 3 fire incidents since the beginning of 2023, where emollients have been prescribed. These are the cases we know about, and which have been described in 3 of the case studies.



Norfolk Fire and Rescue Service have also provided 2 case studies for reflection. In these case studies you will see similar risks highlighted.

Case Study 1: First fire incident – 11/2/23

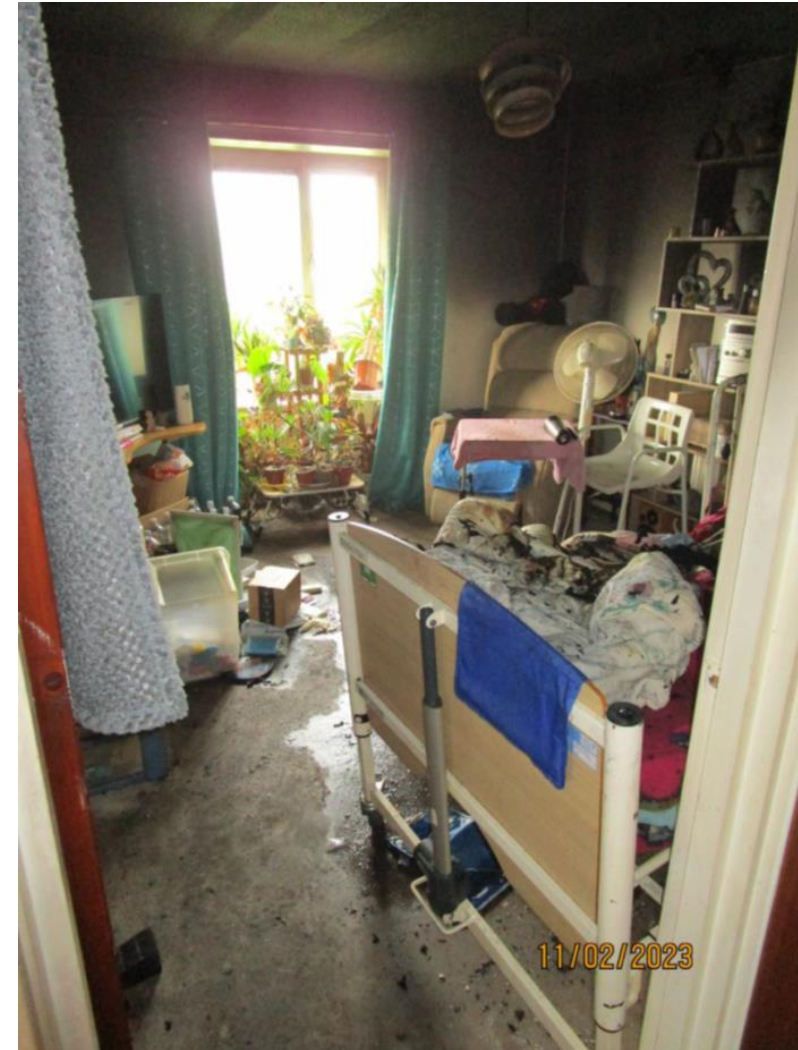
Judy was 56, she lived alone in a flat and was in receipt of a comprehensive care plan which included the provision of telecare. She had suffered several medical issues which left her bed bound.

Judy regularly used emollient cream and was known to drink heavily and smoke in bed, she was made aware of the risks by her carers, family and the fire and rescue service but was unwilling to change her habits.



Case Study 1: First fire incident – 11/2/23

Unfortunately, there was a fire caused by a dropped cigarette that ignited clothing/bedding that was contaminated with emollient cream. Judy sustained severe 30% burns to her upper torso and limbs and sadly died from her injuries.



Case Study 2: Second fire incident – 13/2/23



Jack was 69-year-old gentleman who had mild/moderate learning disability and a complex health profile. He lived in a nursing home and his mobility had gradually deteriorated, becoming dependent on using a wheelchair to get around.



On the day of the incident Jack had had his usual emollients applied that morning. In the afternoon Jack went outside to smoke and was left unattended despite having a care plan which stated that he was not to be left alone while smoking. This was due to the known high risk of from his prescribed cream, which was highly flammable.



Unfortunately, Jack's clothing caught fire causing severe and widespread burns to his body, neck and face. He was admitted to the local hospital via ambulance with burns across 25% of this body.



He received treatment from emergency services and was transferred from the local acute hospital to a specialist burns unit but sadly died the next day.

Case Study 3: Third fire incident – 11/4/23



Paul is a 64-year-old gentleman with a mild/moderate learning disability and experiencing a global decline in his health. He lives in supported living with a small package of care and uses a wheelchair to mobilise as his mobility has gradually deteriorated.



Paul was having a cigar outside in the garden, when the cigar or some hot ash dropped on his chest. Paul's shirt caught fire and luckily a fellow tenant at the property was nearby and able to throw a bucket of water over him, which extinguished the fire.



Paul was admitted to A&E with a 3cm area burn on his chest and received ongoing care to support a full recovery.

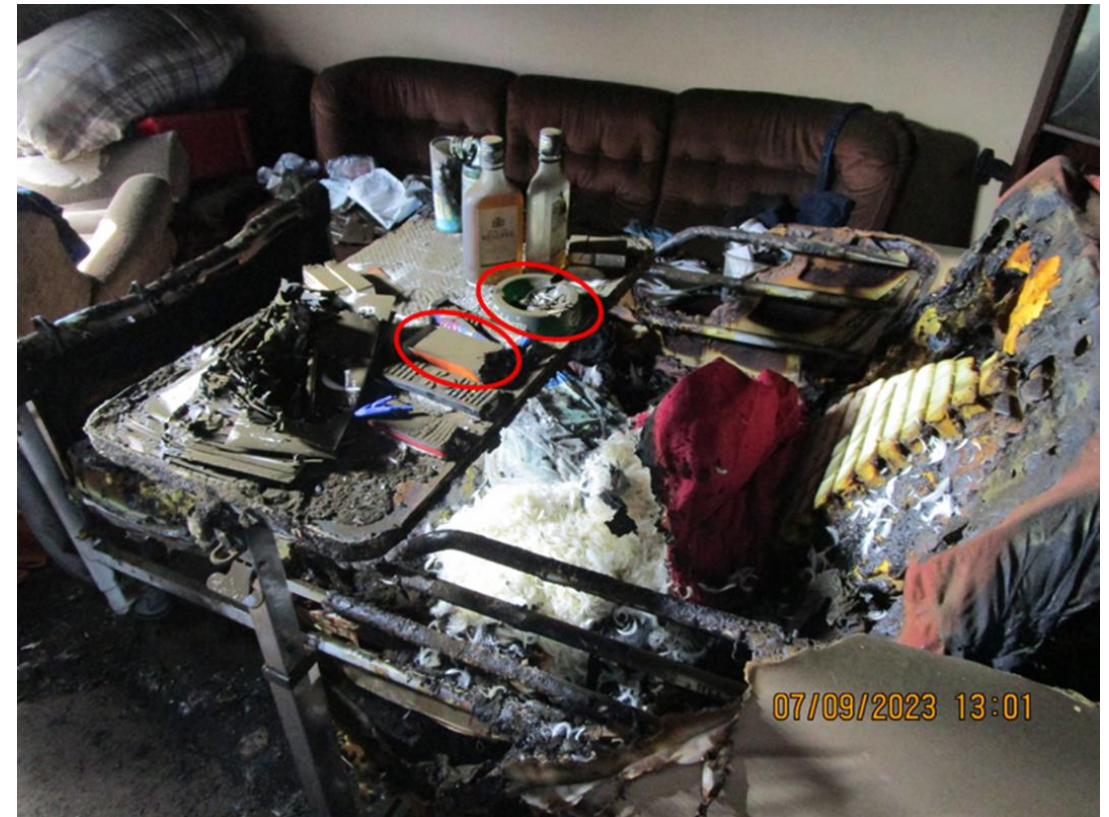


This incident was not reported to anyone, either by the community or the hospital. Discovery was completely down to a remarkable show of professional curiosity from his Community Learning Disability Nurse when reviewing his shared care record when completing a nursing assessment.

Case Study 4: Fourth fire incident – 07/09/23

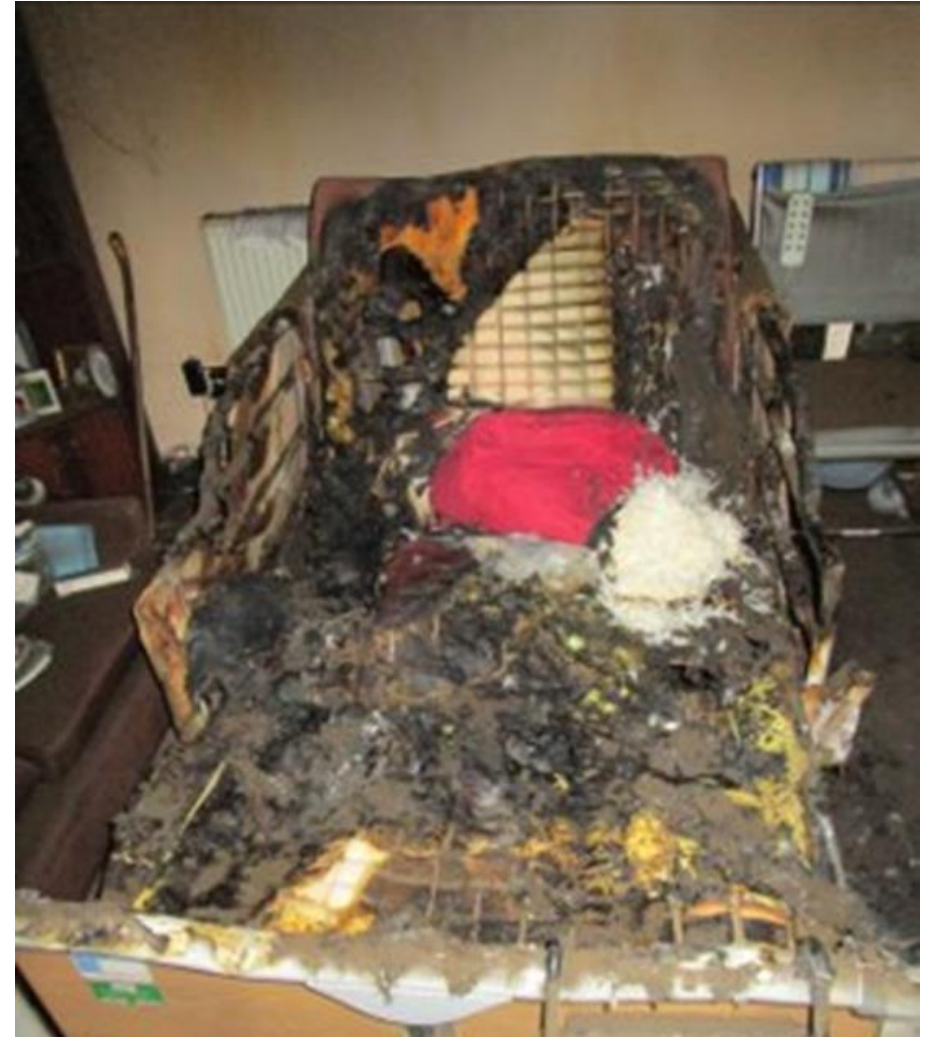
Robert was 76 and lived in his own home. He was bed bound, used emollient cream and was known to misuse alcohol and smoke in bed.

Robert had a comprehensive care plan in place but refused further support and assistance from family and other agencies. Robert was unwilling to reduce or stop his smoking and he refused to allow family or carers to fix defective smoke detectors in his home.



Case Study 4: Fourth fire incident – 07/09/23

In an attempt to reduce fire risk, Robert was prescribed with an oat-based (paraffin-free) emollient cream. Sadly, he still died in a fire caused by a dropped cigarette igniting fabrics which had emollient skin products dried on. Paraffin free emollients create the same fire risk as paraffin based.



Case Study 5: Fifth fire incident – 8/8/24



Be aware of the risks!



What is the risk?



Emollients may contain paraffin or other ingredients such as shea or cocoa butter, beeswax, lanolin, nut oil or mineral oils which can leave a flammable residue.



Both paraffin and non-paraffin emollients can act as an accelerant when absorbed and dried into clothing/fabrics and exposed to naked flames or other heat sources.



Emollients are not flammable in themselves. The risk occurs when they absorb into fabrics and are then exposed to naked flames or heat sources

Who is most at risk?



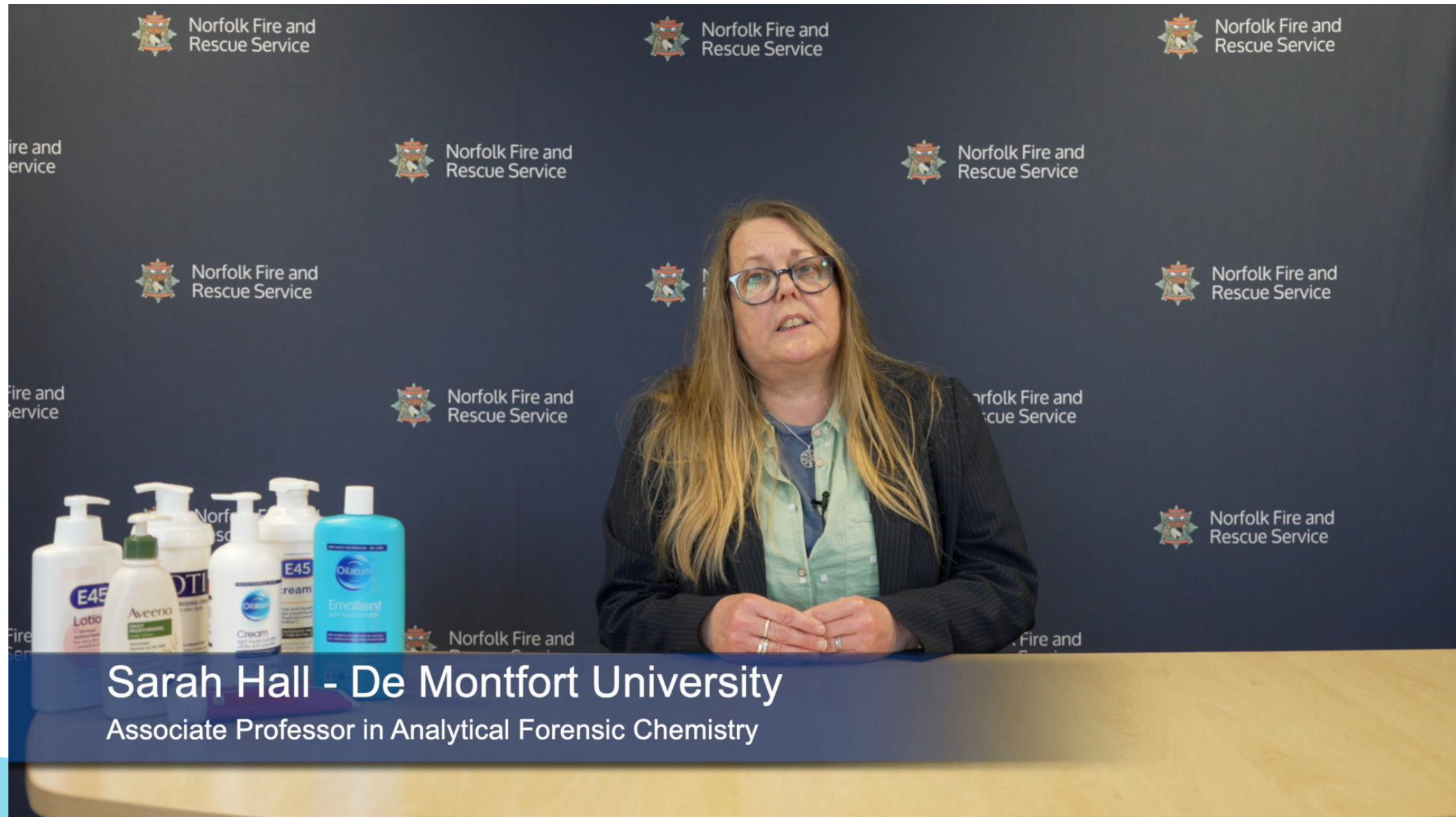
Over 65's who smoke and have reduced mobility are those most at risk and we would encourage and advise them, their families, and carers to be alert to the inherent fire risk and appropriate fire safety advice.



Known fire risk factors include:

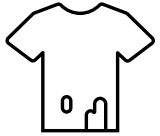
- Smoking
- Impaired cognition
- Increased age
- Fragility
- Reduced mobility
- One room living
- Chronic skin conditions or wounds requiring regular emollient application
- Heaters being used too close to affected areas
- Those less likely to be able to regularly wash clothing, bedlinen or dressings affected by emollient application.

What does the research say?



Sarah Hall - De Montfort University
Associate Professor in Analytical Forensic Chemistry

What does the research say?



Research which shows the use of emollients can dry and build up on fabrics such as clothing, bedding, bandages and sofa's.



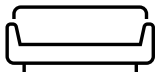
This build-up of emollients increases the flammability of the fabrics causing them to ignite at a much faster rate and burn hotter. The research also showed that fabrics with a build-up of emollients on them burn longer next to the skin, increasing the risk of severe skin burns.



Research has also found that unsuitable safety advice is given regarding emollients and the contribution of the use of emollients in fatal fires was underreported.



Research investigating paraffin free skincare products showed similar burn behaviour as with the paraffin-based variety.



Research also showed that fabrics with characteristic flame-retardant properties also ignited quicker with emollients built up on them.

Advice to Patients

Do you use a skin cream, ointment, lotion, gel, spray, bath oil or soap substitute (sometimes called emollients)? They are used to manage dry skin conditions such as eczema, psoriasis and ichthyosis.

Some dressings and bandages may come with ointment already on them.

Emollients can transfer from your skin onto clothing, bedding and bandages. In the presence of an ignition source, fabric with emollient dried on it can catch fire much more quickly and burn hotter than clean fabric. This can cause severe burns and even death.



HOW TO USE EMOLLIENTS SAFELY

- 1 Do not smoke, cook or go near to any naked flames or heat sources such as gas, halogen, electric bar or open fires whilst wearing clothing or dressings that have been in contact with emollient-treated skin. If this is not possible, take steps to reduce the risk; e.g., use a safety lighter or e-cigarette, remove long sleeved or loose clothing before cooking, put a thick uncontaminated shirt, overall or apron over your clothes and move your chair further away from the open fire or other heat source.
- 2 Change and wash your clothes frequently (preferably daily). Washing your clothes at the highest temperature recommended by the manufacturer might reduce the build-up of emollient on them but does not remove it completely and the danger may remain.
- 3 Take care the cream doesn't dry onto cushions, soft furnishings and bedding. If it does, use uncontaminated throws/covers on your seating and wash your bedding frequently as above.
- 4 Tell your relatives or carers about your treatment and show them this leaflet. Those who care for you can help to keep you safe.
- 5 Tell your doctor, nurse or pharmacist if you normally smoke. They will be able to offer you help and advice to stop smoking.

For advice and guidance on reducing your fire risk when using emollients please contact your local fire and rescue service.

Please speak to your doctor, nurse or pharmacist if you have any questions about the information in this leaflet.

There was a Skin Cream Alert issued by the Medicines & Healthcare products Regulatory Agency.

Patients are advised to keep away from fire, flames and cigarettes when using all types of emollients (both paraffin-based and paraffin-free).

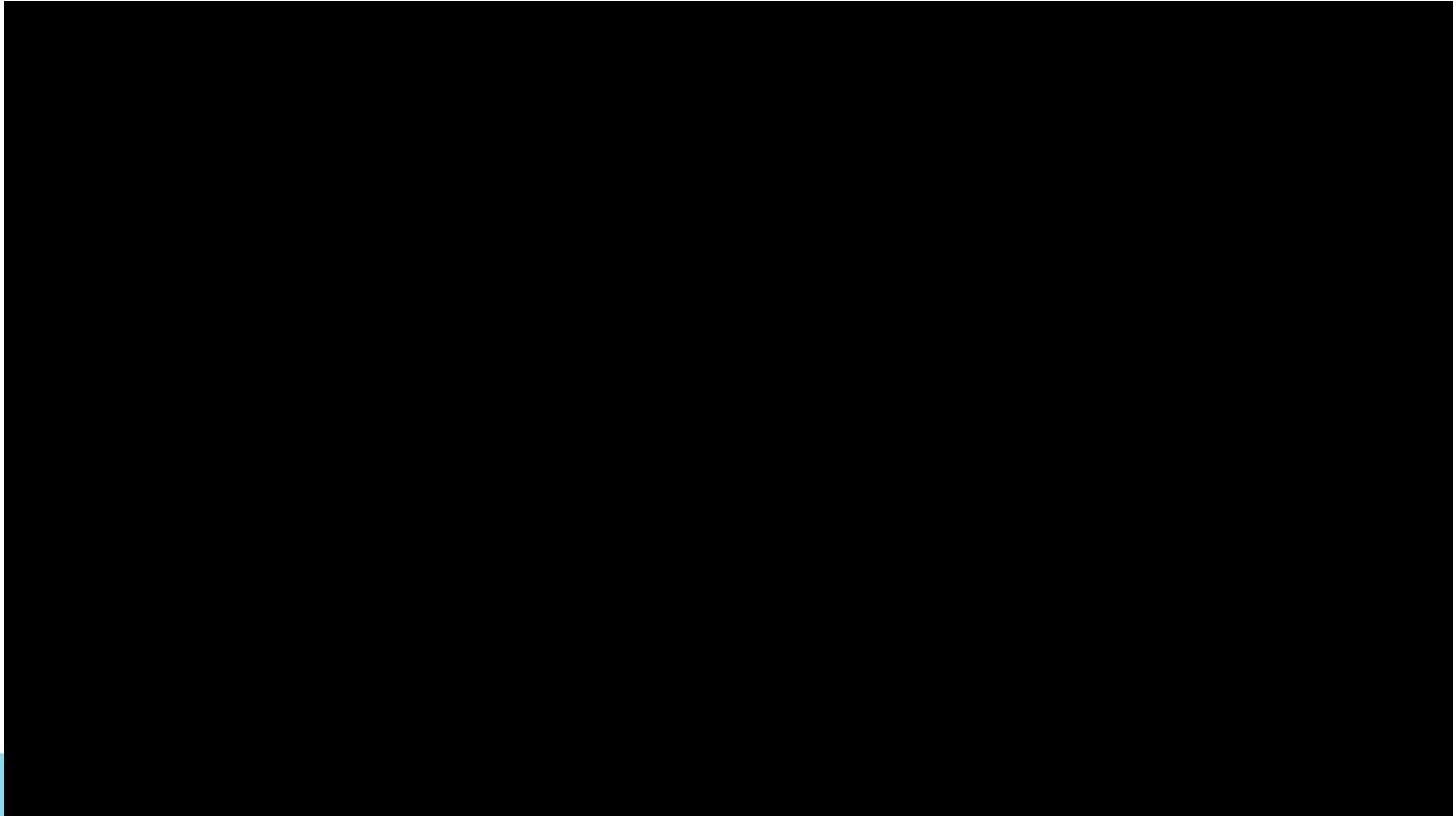
Ideally offer smoking cessation advice and support.

When smoking, wear a thick shirt, overall or smoking apron that has not touched emollients over your clothes.

Fabrics should be washed at high temperatures which may reduce the build-up of an emollient, but it will not remove it completely.

Where possible move furniture away from fires and heat sources.

Advice for Health and Care Professionals



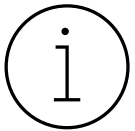
Advice for Health and Care Professionals



We must ensure patients, and their carers understand the fire risk associated with the build-up of residue on clothing and bedding and encourage and support action to minimise the risk. This information needs to be communicated in a way which is accessible for them and takes into account any required reasonable adjustments.

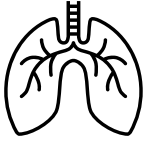


A personalised risk assessment should be completed, and any measures to reduce the hazard should be recorded in a care plan.

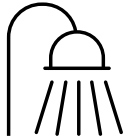


When prescribing, recommending, dispensing, selling, or applying emollient products to patients, instruct them not to smoke, cook using agas or an electric hob, sit close to or go near to any heat source such as open, gas or electric fire or halogen heater, if there is any chance that their clothing, towelling, bedding or bandages are contaminated with emollients as clothing or fabric such as bedding or bandages that have been in contact with an emollient or emollient-treated skin can rapidly ignite.

Advice for Health and Care Professionals



Be aware where an individual uses home oxygen therapy, oil free preparations should be used where there will be direct contact with oxygen, for example, on the face including nasal passages and lips, due to the risk associated with high pressure gases and oil-based products. Paraffin based products can also block nasal prongs as well as being a fire risk.



Avoid dressing the person in their day or night clothes until any emollient which has been applied to their skin has completely dried in.

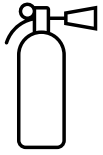


Consider whether the person can smoke in a 'safer' way i.e. smoke outside whilst wearing an uncontaminated outer covering, only using a safety lighter or a supervised smoking arrangement – just smoking outside does not reduce the risk!



Capacity to be considered and assessed for those who smoke. More awareness of decisional and executive capacity especially with those who have cognitive impairments.

Advice for Health and Care Professionals



Additional interventions, appropriate to the risk, may include additional smoke detection, telecare linked detection systems, fire retardant throws, bedding and smoking aprons, safety or deep ashtrays and portable fire suppression units.



In high-risk circumstances where actions to eliminate or reduce the hazard will not be taken by the person or where people with cognitive impairments who smoke are prescribed emollients, consider contacting your local fire and rescue service so that a home fire safety visit can be carried out. <https://www.safelincs.co.uk/hfsc/>



Where individuals chose to continue to smoke or use open heat sources, advice should be sought from their GP to consider if a change in prescribed creams/emollient products can be enabled.



Any and all fire incidents with emollients or other skin care products should be reported to the [Yellow Card Scheme](#).

Equipment – Who is responsible?



If someone is in a nursing home, residential home or supported living then it is the providers responsibility, to provide certain fire safety equipment such as smoke detectors.



If someone is living in the community and there is a risk or if they meet the Care Act eligibility, then you could request a service via the Assistive Technology Team if the person is over 18 years old. This request can go via the social worker or through the social care team front door:

[Norfolk Team](#)

[Suffolk Team](#)



There is no formal arrangement for say a flameless lighter or smoking tabards, this may require an individual conversation with the person's key worker.

Personal Misting Units.

Norfolk Fire and Rescue Service are supporting Landlords and Care Providers to install personal misting units to detect and control a fire where an individual is at a very-high risk of fire and unable to evacuate safely.

These [Personal Protection Systems](#) detect a fire, call 999 via an alarm receiving centre and deploy a fine water mist to suppress fire whilst the Emergency Services arrive.

These units were identified following the recent sad fire deaths involving immobile residents who were reliant on emollient cream and continued to smoke in bed.

[Use this link to](#) refer a service user to NFRS for fire safety advice and to consider if a personal misting unit is appropriate.



What we have done to try and reduce the risk.



The Norfolk Fire Service completed a 7-minute briefing and letter to all services in February of 2023 following 2 fatal fires in Norfolk, containing all the information we have discussed today.



The Community Learning Disability Teams have shared the MHRA skin cream alert with patients, their families and health and social care colleagues and providers.



The Community Learning Disability Nurses have amended the Nursing Health Assessment to include a section on smoking.



When the Fire Protection team from Norfolk Fire and Rescue Service (NFRS) carry out future fire safety audits, particular attention will be paid to emollient management processes and NFRS Fire Protection staff are available to give guidance and assistance if necessary.



We have developed easy read information on the risks of using emollients which has been shared with the system and can be used to support these conversations with those who require easy read.

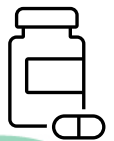
What we have done to try and reduce the risk.



The National Fire Chiefs Council, in collaboration with the CQC, are devising a template Risk Assessment Framework which will be shared. This can be used as a benchmark to assess the quality of your organisations risk assessment and adapt it or adopted in full.



Community Learning Disability Nurses are able to review the NHS numbers of people identified in their locality and open to their service and take action to review their safety. This includes making a referral for a home fire risk assessment, review of care plans and look at risk reduction. The teams will highlight those not open to them and contact the GP for consideration of a review of prescribing and home safety.



The ICB Meds Op Team are updating the formulary and will include prescribing advice for emollients.



All of our localities within the ASSD Learning Disability Services are now collating data relating to actual fire incidents or near misses that may potentially involve emollients, either via their reporting portal or from other professionals/health colleagues. This will be collated and hopefully help give a better picture of numbers and shed light on how these are spread across the county.

Know the Fire Risk – Video



