Mapping of Govt guidance for IPC for COVID-19 in care homes

Version: 14 May 2020

Purpose of this document:

1. To map the current guidance on infection prevention and control (IPC) in care homes from the UK Government and Public Health England
2. To understand the strengths and gaps – so we can advocate to get the gaps and weaknesses responded to
3. To inform our interim practical, in-one-place, guidance for use by Care Home Managers (see below), as a tool, building on the existing UK Govt and PHE guidance, while it is still scattered and in some cases, contradictory

Authors of this document:

This is a 'living' document that will be updated as Guidance is updated. It has been prepared by:

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A range of other reviewers contributed to the strategy on which the recommendations made in this mapping document are based:

Care Homes Strategy for Infection Prevention & Control of Covid-19 Based on Clear Delineation of Risk Zones - This strategy document has been prepared with inputs from a range of experts who collectively have a mix of experience from medicine/health, care homes, water/sanitation/hygiene, outbreak infection prevention & control (specifically from Ebola, SARS, cholera and Lassa Haemorrhagic Fever outbreaks) and emergency response.

This can be found at: https://www.bushproof.com/care-homes-strategy-for-infection-prevention-control-of-covid-19-based-on-clear-delineation-of-risk-zones/; or https://ltccovid.org/2020/05/01/resource-care-homes-strategy-for-infection-prevention-control-of-covid-19-based-on-clear-delineation-of-risk-zones-update/

Meaning of font colour and style within this document:

- Red text = gaps in guidance, contradictory points, questionable aspects
- **Black bold** = highlights certain useful points

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Key documents utilised in this mapping analysis

1. Our care homes IPC strategy document

	Core document	Date	Link	Notes
1	Our practical recommend-ations on IPC strategy for care homes document	April 18 – updated regularly	https://www.bushproof.com/care-homes-strategy-for-infection-prevention-control-of-covid-19-based-on-clear-delineation-of-risk-zones/; or https://ltccovid.org/2020/05/01/resource-care-homes-strategy-for-infection-prevention-control-of-covid-19-based-on-clear-delineation-of-risk-zones-update/	Focusses on providing simple practical guidance in one place. Focus on zoning and hand-washing at critical times to improve IPC through nudges. Incorporates responses to asymptomatic / pre-symptomatic transmission. Understands that symptoms for older people are not the same as for younger people.
2	Webinar on our care homes IPC document		https://youtu.be/QNN9iTnnRH0	Provides an overview on the strategy above, including explaining the issue of asymptomatic and pre-symptomatic transmission and introducing key elements of the document

2. The UK Govt guidance referred to (by letter) in the comparison table

	Core document	Date	Link	Notes
A	Department of Health & Social Care / PHE / CQC / NHS - **'Admission and Care of Residents during Covid-19 Incident in a Care Home'** guidance	2 April 2020	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878099/Admission_and_Care_of_Residents_during_COVID-19_Incident_in_a_Care_Home.pdf	This guidance focuses only on symptom-based screening, not taking into account asymptomatic / pre-symptomatic cases. It also says you can give 'care as normal' for someone who does not have symptoms (presumably without PPE). It also recommends people with COVID+ tests can be returned to the home. It does not focus much on IPC. Says it is in the process of being updated.

B	PHE **Guidance for working safely in care homes**	17 April updated 27 April	https://www.gov.uk/government/publications/covid-19-how-to-work-safely-in-care-homes	Says it is drawn from 'C' below for application in care homes and it is a guide (but where there is conflict with legislation then the legislation prevails – so they leave the responsibility to the care homes to investigate and interpret). Some improvements on the A doc above with clearer bits on PPE and when to use. Brief mentions of possible asymptomatic transmission + need for more than just PPE – but does not say how to respond to these issues.
C	UK Gov – PHE, NHS, PHS, PHA, PHW, HPS - **COVID-19: infection prevention and control (IPC) guidance**	24 April updated 27 April	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/881489/COVID-19_Infection_prevention_and_control_guidance_complete.pdf	This is the Govt's main IPC document across hospitals, health centres, care homes etc, from which document B has drawn. This document has a range of useful information in it and less incorrect information than in A – but it's quite hard to locate the key information for use in the case home setting.
D	**Table 2** - PHE guidance on PPE in community care settings **Table 4** - Additional considerations, in addition to standard infection and prevention control precautions	8 April 2020 9 April 2020	**Table 2:** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877599/T2_Recommended_PPE_for_primary_outpatient_and_community_care_by_setting_poster.pdf **Table 4:** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879111/T4_poster_Recommended_PPE_additional_considerations_of_COVID-19.pdf	Tables which indicate the PPE that it is advised that care-workers use in care-homes, and for when assessing someone who may have COVID-19. Eye wear protection is just recommended based on risk assessment and based on sessional use. We are recommending they should be used at all times when in contact with residents.

E	Donning and doffing guidance	8 April	**Donning:** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878677/PHE_11606_Putting_on_PPE_062_revised_8_April.pdf **Doffing:** https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878678/PHE_11606_Taking_off_PPE_064_revised_8_April.pdf	This is OK - except it misses a hand-washing step after taking off an apron and before taking of the mask when doffing. Risks infecting face. Note that our document follows CDC advice, advocating an additional hand hygiene between steps 3 and 4 during doffing (i.e. after removing apron, and before putting hands near face).
F	DH&SC - **COVID-19: Our Action Plan for Adult Social Care**	15 April 2020 (V1)	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879639/covid-19-adult-social-care-action-plan.pdf	Mentions that people who are COVID+ can be sent back to care homes while still positive to free up critical care beds in hospitals. **But also, that where the care home is not able to isolate / cohort them, that they can be taken elsewhere for quarantine and that the Govt has provided funding to support discharge from hospital.**
G	Gov.UK – **Management of shortages in PPE**	3 May 2020	https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/managing-shortages-in-personal-protective-equipment-ppe	Based on the WHO advice on re-use (6 April). Discusses the need for face fit for FFP2 respirators + that they are user specific. Notes where acute shortages of PPE it allows the sessional use and reuse of PPE.
H	HM Government – **Our plan to rebuild: The UK Government's COVID-19 recovery strategy**	May 2020 CP 239 (11 May)	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/884760/Our_plan_to_rebuild_The_UK_Government_s_COVID-19_recovery_strategy.pdf	This new document has a section on protecting care homes (Section 5.2 – page 34). **For the first time it has a specific focus on IPC** - as well as testing, workforce, clinical support, guidance and local authority role. IPC section says: • Govt stepping in the support PPE to care homes, hospices, residential rehabs and community care orgs. • *"It is supporting care homes with extensive guidance, both online and by phone, on how to prevent and control*

				COVID-19 outbreaks. This includes detailed instructions on how to deep clean effectively after outbreaks and how to enhance regular cleaning practices". • *"The NHS has committed to providing a named contact to help 'train the trainers' for every care home that wants it by 15 May".* • *"The Government expects all care homes to restrict all routine and non-essential healthcare visits and reduce staff movement between homes, in order to limit the risk of further infection".*

For other Govt and wider references for evidence which support the recommendations in the comparison table (which follows) – see the end of the document.

UK Government guidance vs our strategy for IPC in care homes

Issue	Govt guidance – UK Govt / PHE / NICE etc (some of which is contradictory)	A	B	C	D	E	F	G	Our guidance	Rationale for our recommendations
	("Until you need to take a break" = "a session")	Page number							(Section number)	
3. Critical elements of IPC										
3.1 - Zoning / clarification of risks / risk areas	The following recommendations have some useful aspects of zoning or consideration of relative risk areas incorporated in them: • (A) *"Any resident presenting with symptoms of COVID-19 should be promptly isolated (see Annex C for further detail), and separated in a single room with a separate bathroom, where possible". "Staff should immediately instigate full infection control measures to care for the resident with symptoms, which will avoid the virus spreading to other residents in the care home and stop staff members becoming infected".* • (A) Resident contacts are defined as residents that: a) Live in the same unit / floor as the infectious case (e.g. share the same communal areas), or b) Have spent more than 15 minutes within 2 metres of an infectious case. [not sure where this 15 min has come from, we understand from experiences in Vancouver that transmission has happened even with short contact in their care homes?]	5 10 11	7	28					(1 & 2) Our recommendations are based around the concept of 'zoning' / 'traffic control bundling' (TCB) based on green/amber/red zones Plus, when to do hand hygiene + change PPE + separate staff groups + keep cleaning equipment separate etc.	Recommendation for zoning / TCB is based on learning from SARS in Taiwan, Ebola and cholera - to provide nudges for staff to remember particular transmission risks and reduce risks. It also considers/responds to the asymptomatic transmission. In some places PHE guidance seems to focus only on isolating and caring for the symptomatic residents only and seems to assume this on its own will prevent infection to the other residents.

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	• (A) *"Symptomatic residents should ideally be isolated in single occupancy rooms. Where this is not practical, cohort symptomatic residents together in multi-occupancy rooms. Residents with suspected COVID-19 should be cohorted only with other residents with suspected COVID-19. Residents with suspected COVID-19 should not be cohorted with residents with confirmed COVID-19. Do not cohort suspected or confirmed patients next to immunocompromised residents".* • (A) Clearly sign the rooms by placing IPC signs, indicating droplet and contact precautions, at the entrance of the room. • (A – Annex C) Re what to do with contacts: states to isolate contacts for 14 days ideally in single rooms or in groups together. Extremely vulnerable residents should be in a single room and only one bathroom. • (A – Annex C) It is also recommended that residents who have not had any exposure to the symptomatic case can be cohorted separately in another unit within the home away from the cases and exposed contacts. • (A – Annex E) Notes that signage should be used to prevent unnecessary entry to the isolation room, but then also says confidentiality must be									It also talks of cohorting people with symptoms together if single occupancy rooms are not available. But in other places it also recommends isolating contacts as well. Scattered throughout the various documents there are some points that suggest some form or degree or zoning - but they are time-consuming and not simple to find to understand the whole concept and not clear in presentation. However, instituting the zoning or TCB approach would support a range of the PHE guidance.

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	maintained **[we agree on the need for signage – but this risks being contradictory – how can you maintain confidentiality if a sign is placed?].** • (B) *"You and or your manager may want to monitor your residents for symptoms. If any of your residents develop symptoms, become suddenly unwell with a cough and or temperature or you are concerned about any of them you must inform your manager immediately. Whilst you will wear PPE for all patients as per recommendations, when you know someone has symptoms it may be appropriate to visit those individuals at the end of rounds (where safe to do so) and discuss with your manager ways you might be able to minimise direct contact where practical, to further reduce risk to yourself".* **[doesn't go into IPC requirements – seems to over simplify the situation – just leaving them until the end of the rounds]** • (C) *"A single session refers to a period of time where a health and social care worker is undertaking duties in a specific clinical care setting or exposure environment… **A session ends when the health and social care worker leaves the clinical care setting or exposure environment**. Once the PPE has been removed it should be disposed of safely. The duration of a single session*									

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	will vary depending on the clinical activity being undertaken". **["The clinical care setting or exposure environment" – is effectively saying going between zones]** • (C) *"The following important factors would safely reduce gown usage over a session but organisations should develop an implementation and action plan suitable to their organisation: a)* ***Label all higher risk area bays, single rooms, corridors, treatment rooms and nurses' stations as 'clinical' areas within a specific hospital area. Limit 'non-clinical' areas to staff kitchen/rest areas and changing room****. b) Once gown or coverall is donned, the gown/coverall should remain on the staff member until their next break. Plastic aprons and gloves should be changed between patients (with the notes from aprons highlighted below). C)* ***Staff should doff the gown or coverall only when going from the clinical to nonclinical area of the ward, or if they are leaving the ward for a break****".* **[This paragraph is effectively zoning]**									
3.2 - Encourages understanding of infection routes and how to	These statements which are scattered through the documents, highlight some elements of the PHE and UK Govt understanding of infection routes:	11	3 4 5	13					(1, 2 and whole document) Our document has the understanding of transmission	The consideration of the possible routes for transmission including from asymptomatic and pre-symptomatic

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prevent transmission	• (A) States that *"when transferring symptomatic residents between rooms, the resident should wear a surgical face mask"* **[but does not state other PPE for staff or IPC procedures].** • (B) *Notes: "PPE is only effective when combined with: hand hygiene (cleaning your hands regularly and appropriately); respiratory hygiene* https://coronavirusresources.phe.gov.uk/hand-hygiene *and avoiding touching your face with your hands, and following standard infection prevention and control precautions.* www.nice.org.uk/guidance/cg139*"* **[good that it says you need to follow standard IPC precautions - but does not give specific guidance – it won't be easy for all care homes to pull out the relevant guidance needed from the NICE document link provided].** • (B) It talks about gloves being to protect you from body fluids and secretions **[but does not talk about the virus on solid materials].** It also mentions the mask being to protect the carer, **[but not highlighting that it also protects the resident, as the carer can also be asymptomatic].** • (B) Recommends only to use a mask but no other PPE needed if within 2m of patients but not touching them, including in communal areas. Does not think that eye protection, plastic apron								routes - at the core of its logic - and the recommended strategies are produced on this basis (such as zoning and understanding asymptomatic and pre-symptomatic spread). Our guidance also recognises the risk from care workers to the residents as well as vice versa.	patients has been the biggest weakness in the PHE guidance. We have stricter recommendations for PPE, recommending that full PPE must be used when in contact with any residents at all times. And also stressing the importance of changing PPE between zones. PHE has recognised some risks for transmission such as through sharing mobility devises, electronic gadgets etc.

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	or gloves are needed. **[we think this is not adequate and full PPE should be worn when with residents at all times – for example, if a staff member is asymptomatic and does not wear a mask for example, they can infect surfaces that then can be touched by a resident or other staff member; and a resident may be asymptomatic and cough when not expected, leading to droplets into the eyes, or breathe on a staff member]** • (A) Mentioned dedicating specific medical equipment to residents of possible or confirmed cases. • (A) Restricts sharing of personal devices. • (C) A precautionary approach is recommended and close contact has been defined as within 2 metres (approximately 6 feet) of a patient due to general opinion that droplets tend to not reach further than this distance. • (C) *"Survival on environmental surfaces is also dependent on the surface type. An experimental study using a SARS-CoV-2 strain reported viability on plastic for up to 72 hours, for 48 hours on stainless steel and up to 8 hours on copper".* • (C) *"Contact precautions - Used to prevent and control infection transmission via direct contact or*									

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	indirectly from the immediate care environment (including care equipment). This is the most common route of infection transmission".									
3.3 - Symptomatic vs asymptomatic or pre-symptomatic transmission	The following points identify the PHE and UK Govt understanding of the transmission routes of COVID-19: • (A) Care home providers should follow social distancing measures for everyone in the care home, wherever possible, and the shielding guidance for the extremely vulnerable group. • (B) Gives guidance on PPE when touching any resident (with or without symptoms) or when within 2m of someone coughing **[includes full PPE including eye protection – but only said is needed for <u>some</u> residents].** Also gives guidance when more than 2m away / not touching / and in communal areas. • (B) **In the Q&As it recognises that 1/3 of people who test positive may not have symptoms and the risk between resident and staff and vice versa. [good to see this acknowledged somewhere – although it contradicts the doc C]** • (C) *"Infection control advice is based on the reasonable assumption that the transmission characteristics of COVID-19 are similar to those of the 2003 SARS-CoV outbreak".* **[this is not**	5	3 6	11					(1 & 19) Our document is based on evidence that spread is likely to be asymptomatic / pre-symptomatic / and symptomatic – as per evidence from Singapore, USA, Canada, Germany etc. **[see references at end of this document]**	We believe that any PHE guidance that does not acknowledge the pre-and asymptomatic transmission is not fit for purpose, will give a false sense of security to staff and will not prevent infection. There is a brief mention in B and C but does not give recommendations for how to respond. C was updated 27 April - but there have been papers published in April on evidence from a number of countries in the asymptomatic nature of the virus while having the condition for large

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	reasonable based on the evidence on asymptomatic and pre-symptomatic positive cases] • (C) "*The incubation period is from 1 to 14 days (median 5 days). Assessment of the clinical and epidemiological characteristics of COVID-19 cases suggests that, similar to SARS, most patients will not be infectious until the onset of symptoms. In most cases, individuals are usually considered infectious while they have symptoms; how infectious individuals are, depends on the severity of their symptoms and stage of their illness*". **[this is not reasonable based on the evidence on asymptomatic and pre-symptomatic positive cases]** • (C) "*The median time from symptom onset to clinical recovery for mild cases is approximately 2 weeks and is 3 to 6 weeks for severe or critical cases.* ***There have been case reports that suggest possible infectivity prior to the onset of symptoms, with detection of SARS-CoV-2 RNA in some individuals before the onset of symptoms".*** **[good that it is acknowledged – but they don't suggest what to do about it]** • (C) "*Further study is required to determine the frequency, importance and impact of asymptomatic and pre-symptomatic infection, in*									proportions of infected cases in care homes and homeless shelters.

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	terms of transmission risks. From international data, the balance of evidence is that most people will have sufficiently reduced infectivity 7 days after the onset of symptoms". [they have ignored the people who are asymptomatic and pre-symptomatic]									
3.4 - Discharge of COVID+ patients into a care home	• (A) *"As part of the national effort, the care sector also plays a vital role in accepting patients as they are discharged from hospital – both because recuperation is better in non-acute settings, and because hospitals need to have enough beds to treat acutely sick patients.* ***Residents may also be admitted to a care home from a home setting. Some of these patients may have COVID-19, whether symptomatic or asymptomatic. All of these patients can be safely cared for in a care home if this guidance is followed*****".** **[but their guidance is not strong enough to prevent spread]** • (A) *"If an individual has no COVID-19 symptoms or has tested positive for COVID-19 but is no longer showing symptoms and has completed their isolation period, then care should be provided as normal".* **[so, what about people who are asymptomatic and pre-symptomatic?]** • (A) **Negative tests are not required prior to transfers / admissions into the care home.**	4							(1) We do not think that due to the infection risks for many vulnerable residents, that any patient who has COVID+ and has not had a negative test, should be entered into a care home until that negative test is obtained. The DHSC plan for COVID-19 says that if effective isolation/ cohorting cannot be done then alternative quarantine	We strongly recommend that it is safer for the government to always provide alternative quarantine accommodation for people who have been discharged from hospital still positive with COVID to free up acute care beds, rather than sending them into care homes, where they risk infecting staff and residents. But we understand that some care homes have been threatened with losing funding if they do not take in residents who

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	• (A – Annex D) – If someone is discharged from hospital **with no symptoms of COVID-19 then they should provide 'care as normal'**. If they have tested positive from COVID and are no longer showing symptoms and have not yet completed their 14-day isolation, then they should remain in room for the rest of the 14 days and staff should wear PPE.								accommodation. should be made available. Being in a hospital increases a person's risk of catching COVID-19, so we think any new resident being discharged from hospital or otherwise should be isolated for the first 14 days on arrival.	have not been tested or are positive: https://news.sky.com/story/coronavirus-care-homes-faced-funding-cut-if-they-didnt-take-in-covid-19-patients-11986578 It is also concerning that they recommend in (A) that if a person is discharged from hospital to a care home without symptoms **they should be provided with 'care as normal'**. Being in a hospital increases a person's risk of catching COVID-19, so we think any new resident should be isolated for the first 14 days on arrival.

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3.5 - Acknowledgement of different geriatric symptoms to COVID-19	• (A) *“Care homes should implement daily monitoring of COVID-19 symptoms amongst residents and care home staff, as residents with COVID-19 may present with a new continuous cough and/or high temperature. Assess each resident twice daily for the development of a fever (≥37.8°C), cough or shortness of breath. Immediately report residents with fever or respiratory symptoms to NHS 111, as outlined in the section below”.* [This ignores that symptoms for older people tend to be different to younger people]	5							(2) We have listed a range of symptoms that include less obvious ones that have been noted for older people.	PHE does not seem to recognise the differences in symptoms for older people and younger people – older people do not tend to get a cough or fever.
3.6 - Allocation of staff responsibilities within the home	These are all positive recommendations in alignment with a zoning strategy – but the points are a bit scattered and not emphasised in the (B) document: • (A) *“**Staff caring for symptomatic patients should also be cohorted away from other care home residents and other staff, where possible/practical. If possible, staff should only work with either symptomatic or asymptomatic residents**. Where possible, staff who have had confirmed COVID-19 and recovered should care for COVID-19 patients. Such staff must continue to follow the infection control precautions, including PPE as outlined in this document”.*	11		13					(4) Recommends staff are allocated to either green, amber or red areas (or green and amber + red) to reduce risk of transmission. And to not mix with staff from other zones during breaks.	The PHE makes some occasional recommendations about allocation of staff to different areas with symptomatic / non symptomatic residents. So, our recommendation is similar, but just stated more clearly.

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	• (C) *“**Assigning a dedicated team of staff to care for patients in isolation/cohort rooms/areas is an additional infection control measure**. This should be implemented whenever there are sufficient levels of staff available (so as not to have a negative impact on nonaffected patients’ care)”.* • (C) *“Staff who have had confirmed COVID-19 and recovered, should continue to follow the infection control precautions, including personal protective equipment (PPE)”.* • (C) *“**Domestic/cleaning staff performing environmental decontamination should: a) ideally be allocated to specific area(s) and not be moved between COVID-19 and non-COVID-19 care areas**; and b) be trained in which personal protective equipment (PPE) to use and the correct methods of wearing, removing and disposing of PPE”.*									
3.7 - Isolation vs communal sitting	Presuming this means when there is a specific outbreak: • (A – Annex H) Notes that all gatherings should be cancelled and alternative arrangements to be made for communal activities which incorporate social distancing.	21							(7) We recommend: • That at the first case within a care home, that all communal sitting and activities should be prohibited	Once there is a first case, then we strongly recommend **that no communal activities should be permitted for the period of the outbreak.** Even when there are no people with

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									for 2 weeks minimum - or longer until everyone tests negative. • **That at all times, whether there is a case or otherwise, staff should have no contact with anyone (resident or staff member) without wearing a mask as a minimum, and a higher PPE level when in contact with any resident in all zones.** • If no outbreak, then for the longer-term, ways to be found for	symptoms, it is still possible that people are pre or asymptomatic, and so in reality the best situation would be for everyone to be isolated in their rooms all the time, as the general population has been in their houses (although the general public has been allowed out for exercise). However, for long-term well-being (in the coming 12 months) there needs to be strategies for safe socialising / interaction, so we have agreed that some form of contact would be beneficial, but it **has to be with strict distancing.**

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									communal sitting and activities – but with strict 2m social distancing and use of windows or perplex sheets between people to reduce risk of transmission.	
4. PPE										
4.1 – Donning and doffing areas	• (B) When removing and replacing PPE, ensure you are 2 metres away from residents and other staff – see Donning and Doffing of PPE video www.gov.uk/government/publications/covid-19-how-to-work-safely-in-carehomes/covid-19-putting-on-and-removing-ppe-a-guide-for-care-homes-video • (B) Your manager and yourself will need to decide the best place to do this in the care home e.g. **have dedicated area for putting on and taking off PPE.**		8 9						(9) We have recommended a dedicated area (or areas in a big home) to systematise process + have posters to follow for how to don and doff + have a tap and sink and	We are recommending systematising the process and awareness moving from one zone to another + correct putting on/taking off of PPE and to reduce risk of contamination of clean PPE and/or multiple other surface or receptacles for used PPE.

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									containers for waste and used PPE.	
4.2 - Donning and doffing processes	• (B) When removing and replacing PPE ensure you are 2 metres away from residents and other staff – see Donning and Doffing of PPE video www.gov.uk/government/publications/covid-19-how-to-work-safely-in-carehomes/covid-19-putting-on-and-removing-ppe-a-guide-for-care-homes-video		8						(16) Same as PHE guidance except to add in additional hand-washing step before removing goggles/visor. Ours aligns with the CDC's.	To prevent risk of contamination on face when removing mask and goggles/visor. **Note that with the recommendation to only remove apron and gloves (and not mask and eye protection) between each resident who you have direct contact with (in scenario where not enough PPE), there is a need to keep on your mask and eye protection, and this complicates the doffing procedures.**
4.3 - PPE - Use of gloves, handwashing and	• (A) States washing hands with soap and water needed after contact with resident, removal of PPE and cleaning if equipment and the environment	17	6		T2 T4			3	(3) We are stressing the need for alcohol gel to be	Gloves on hand-washing is a lesson from successes in the SARS outbreak and

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handwashing with gloves	• (A) It states alcohol-based hand rub should be in prominent places 'where possible' **[this is not enough]** • (B) States that gloves should be single use and thrown away after completion of a procedure or task and after each resident. Plus, to care not to touch the mouth or eyes when wearing gloves. • (B) Mentions that handwashing must be performed immediately before every episode of care and after any activity or contact that potentially results in your hands being contaminated. This includes removal of PPE, equipment decontamination and waste handling. • (C) *"If wearing an apron rather than a gown (bare below the elbows), and it is known or possible that forearms have been exposed to respiratory secretions (for example cough droplets) or other body fluids, hand washing should be extended to include both forearms. Wash the forearms first and then wash the hands".* • (G) States that gloves cannot be re-used. • (G) Further work is being done on validating methods to safely reprocess masks and fluid repellent gowns is under way and future updates will be circulated when available.								throughout the care home including both sides of every residents' room door. We have emphasised the need for more handwashing / hand gelling while gloves are on in between touching objects, as well as when gloves are off. This is not mentioned in PHE guidance. We are recommending that they should be changed between people who you have had direct contact with. Plus, that the standard disposable gloves	based on basic understanding of transmission risks. **We are concerned that the PHE guidance that does not focus on this gives staff a false sense of security when wearing PPE, particularly gloves and feel they can touch anything they like and be safe/not transmit the virus.** The recommendation for re-use of rubber gloves for cleaners is to enable the nitrile gloves to be available for the care staff. We did the same for Ebola.

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									should not be re-used. This is the same as PHE guidance. **We are though recommending that cleaners can use rubber gloves** to minimise use of the nitrile gloves, **and that the rubber gloves can be re-used** after soaking in chlorine. This is not in PHE guidance.	
4.4 – PPE – Use of aprons	• (B) States that aprons should be single use and thrown away after completion of a procedure or task and after each resident. Plus, to care not to touch the mouth or eyes when wearing gloves. • (G) States that gowns cannot be re-used. • (A) and (C) – also has similar recommendations on aprons not to be re-used		6		T2 T4			3	(9) We are recommending that aprons should be changed between people who you have had direct contact with. Plus, that disposable aprons	Use of rubber gloves to minimise use of the nitrile gloves where stocks are low, and that the rubber gloves can be re-used if disinfected in chlorine (as we did for Ebola).

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									should not be re-used. This is the same as PHE guidance. We are however recommending that **heavy duty aprons can be reused if disinfected by soaking in chlorine solution as noted.**	
4.5 - PPE - Use of face masks	The guidance on use of masks is a bit mixed: • (B) It recognises that **surgical masks and fluid repellent surgical masks (FRSM)** are to protect both the staff and the resident. • (B) States that the mask can be used continuously while providing care between patients, until you take a break in duties or at the end of your shift. • (B) *"**There is no evidence to suggest that replacing face masks and eye protection between each resident would reduce risk of infection to you. In fact, there may be more risk to you by repeatedly changing your face mask or eye***		6 7 8	32 37	T2 T4			5 6	(9) We are recommending that ideally masks should be changed, after you have had direct contact with a resident. But that they can be used for a session **in the same zone**, if stocks are too low for new	It is better to change the mask between each resident when in contact with them, wherever possible, as you do not know if they have COVID or otherwise. However, the mask itself does not touch the resident and hence it does not pose as much risk for the next resident, as gloves or apron. So, we agree

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	protection as this may involve touching your face unnecessarily". • (B) ***"You can wear the same face mask between residents whether or not they have symptoms of COVID-19".*** **[this should depend on the order in which you see them – it would not be good to wear any PPE after seeing a person with COVID and then to a person without it – but the other way around does not pose so much risk].** • (B) Also remove and replace if damaged, soiled, damp, uncomfortable, difficult to breathe through • (B) Do not dangle around your neck or put in a surface for later use • (B and G): The Health and Safety Executive recommends that **where face masks are to be re-used (ones with elastic ear hooks) you should do the following: a) carefully fold your face mask so the outside surface is folded inward and against itself to reduce likelihood of contact with the outer surface during storage; b) store the folded mask between uses in a clean sealable bag/ box which is marked with your name and stored in a well-defined place; c) practice good hand hygiene before and after removal. [it is acknowledged that the availability of PPE is challenging and**								ones between each resident. If PPE stocks are very low, we are recommending that FFP2/N95 kind of masks can be re-used but have given a link to the CDC recommendation for how they should be re-used.	with the PHE that use for sessions within zones should be permissible. It is however more difficult to change an apron if a mask and visor or goggles remain on, so this adds a complication. For re-use at a later time, then this only applies for FFP2/N95 masks and not the surgical or FRSM masks. We also feel that the CDC guidance for re-using masks is better than the HSE guidance.

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	hence why the re-use of masks is being promoted, but one challenge with this method is that the mask may be wet / damp and hence risks not drying when in a sealed bag or box. There are also risks that the virus still remains on it, so there is some risk of contamination when handling. The CDC guidance of having a number of masks that mean they are left for the natural virus die off responds to this issue before re-use]. • (C) *"A fluid resistant (Type IIR) surgical facemask (FRSM) should be worn whenever a health and social care worker enters or is present inpatient area (for example, ward) containing possible or confirmed COVID-19 cases, whether or not involved in direct patient care. For undertaking any direct patient care, disposable gloves, aprons and eye protection should be worn".* • (C.) *"FRSMs are for single use or single session use (section 5.6) and then must be discarded. The FRSM should be discarded and replaced and NOT be subject to continued use in any of the circumstances outlined for respirators".* [contradicts the statement above from the HSE] • (G) There is insufficient evidence to consider homemade masks or cloth masks in health and care settings.									

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4.6 - PPE - Use of goggles / visors	• (B) [Bit confusing re continued use or re-use as it states you can use the eye protection continuously while providing care, until you need to take a break between duties. But then it says it must be decontaminated between uses]. • (B) Also remove and replace if damaged, soiled, damp, uncomfortable, difficult to breathe through • (B) Do not dangle around your neck or put in a surface for later use • (C) *"For direct care of possible or confirmed cases in facilities such as care homes, mental health inpatient units, learning disability and autism residential units, hospices, prisons and other overnight care units, plastic aprons, FRSMs and gloves should be used. Need for eye protection is subject to risk assessment (section 5.7) meaning dependent on whether the nature of care and whether the individual symptoms present risk of droplet transmission. For further information, refer to guidance on residential care provision".*		7 8	35					(9) We are recommending that ideally, goggles/visors should be changed between residents after you have had direct contact with a resident. But can be used for a session **in the same zone** if stocks are too low for multiple use. We are recommending goggles and visors can be washed, disinfected and dried throughout the day for re-use. But that this should be done by a separate staff member, rather than the person	We also re-used goggles / visors after disinfection during the Ebola response.

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									themselves taking them off, cleaning and disinfecting them and putting them down and back on later.	
4.7 - PPE – Use of gowns or lab coats	• (G) Further work is being done on validating methods to safely reprocess masks and fluid repellent gowns and future updates will be circulated when available. • (G) Says that alternatives to gowns are reusable gowns, reusable washable laboratory coats, reusable washable patient gowns or reusable coveralls.							3	(9) We have recommended that long-sleeved gowns or washable lab coats would be useful where possible, with laundry in house, as part of PPE to protect scrubs or uniforms when handling patients. PHE have also made this suggestion in their working safely in case homes document (B).	Adds another layer of protection to cover the scrubs or uniforms, particularly when handling / touching an infected or suspected resident, as the aprons do not cover all areas of the staff members clothes. Particularly important when being near and touching a COVID+ resident. Logically most useful if these coats get changed when PPE is changed.

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4.8 - PPE for aerosol generating procedures	• (C) This is noted for staff in operating theatres [so not related to care homes – but interesting point raised] - *"Staff should wear protective clothing (see table 1) but only those within 2 metres of an aerosol generating procedure, such as performing intubation, need to wear FFP3 respirators, disposable fluid repellent coveralls or long sleeved gowns, gloves and eye protection".* – [noted here out of interest that even with an aerosol generating procedure they are saying only those within 2m of the procedure where you need the better PPE. Whereas it is understood that aerosols hang around in the air for quite a while – so this comment does not seem reasonable?]			18					(9) We have included the PHE T2 on PPE requirements for AGPs.	
4.9 - Re-use of PPE	• (B) *"Advice approved by the Health and Safety Executive on strategies for optimising the use of PPE and consideration for the re-use of PPE when in short supply may be found here:* https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/managing-shortages-in-personal-protective-equipment-ppe*"* • (G) States that goggles and visors can be re-used, but not aprons and gloves. • (G) FRSM and FFP2/3 masks can be used for sessional use "in one work area".		9					5 7 8	(9 & 11) We have suggested that goggles, visors, lab coats/coveralls, heavy-duty waterproof re-usable aprons and heavy-duty rubber gloves for cleaners can be re-used after suitable disinfection	Some is the same recommendation as the PHE. Differences: • You can re-use heavy-duty rubber gloves + a strong waterproof apron as long as they are disinfected between residents

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	• (G) Further work is being done on validating methods to safely reprocess masks and fluid repellent gowns is under way and future updates will be circulated when available. • (G) Says that various items can be re-used in these exceptional circumstances but then says … but you should consider the conditions of each individual place of work and comply with all applicable legislation including the Health and Safety at Work Act, 1974 [a get out of responsibility clause for the UK Govt?] • (G) Says that single use PPE should not be re-used/reprocessed and that reusable PPE should be reprocessed in accordance with the manufacturer's instructions								process for the PPE in question. We have also said that the googles/visors and masks can be used by session if not enough. Strong waterproof re-usable aprons **must be changed between residents if you have handled a resident in the amber or red zones**, but can be disinfected. We have recommended not re-using fluid-repellent surgical masks (FRSM/Type IIR). But we have suggested that masks for AGPs (i.e. FFP2/N95) can be re-used based on	– we re-used them for Ebola • We don't think you should be commonly re-using masks in care settings – although agree they can be used for sessional use if not taken off and not damaged as per PHE guidance. • We have suggested if there is no option as PPE is very low, that CDC logic-based guidance on re-use of the higher-grade FFP2/N95 type masks is probably the better option. This is where masks are allocated to staff and stored on

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									CDC's recommendations for how to do that.	between sessions in labelled breathable bags to allow virus die-off as well as moisture release.
5. Disinfection, laundry, wastes										
5.1 - Disinfection protocols	• (A – Annex D) Use disposable cloths/paper roll/disposable mop heads, to clean and disinfect all hard surfaces/floor/chairs/door handles/reusable non-invasive care equipment/sanitary fittings in the room, following one of the 2 options below: ○ Use either a combined detergent disinfectant solution at a dilution of 1000 parts per million (ppm) available chlorine (av.cl.) or ○ A neutral purpose detergent followed by disinfection (1000 ppm av.cl.). • (A – Annex D) Follow manufacturer's instructions for dilution, application and contact times for all detergents and disinfectants. • (A – Annex D) Any cloths and mop heads used must be disposed of as single use items.	21							(11 & 18) We have made the same recommendation as the PHE for options for disinfection by washing with soapy water and chlorine or mixed soap/chlorine solutions. But have also: • Have explained how to mix a 0.1% or 1,000 ppm mix - which the PHE	We have added some practical guidance as to how to make the chorine solutions and other tips.

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									guidance does not explain • Clarified that the mixed soap/chlorine solutions are ready made commercial ones. • Added a step for rinsing before chlorinating.	
5.2 - Cleaning routines and de-contamination	• (A – Annex G) Cleaners recommended to clean isolation rooms after cleaning all other unaffected areas of the facility first. • (A – Annex G) Any cloths and mop heads to be single use. • (C) *"Cleaning and decontamination should only be performed by staff trained in the use of the appropriate PPE; in some instances, this may need to be trained clinical staff rather than domestic staff, in which case, clinical staff may require additional training on standards and order of cleaning".*	18		19 23 24					(11 & 5) If you have enough cloths and mop heads then these can be single use, but we also think that both cloths and mop heads can be re-used after decontamination if it is followed strictly.	This recommendation for re-use is in response to limited resources. We also recommend that cleaning items and equipment should be separately stored for green/amber/red zones.

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	• (C) *"After cleaning with neutral detergent, a chlorine-based disinfectant should be used, in the form of a solution at a minimum strength of 1,000 ppm available chlorine. If an alternative disinfectant is used within the organisation, the local infection prevention and control team (IPCT) should be consulted on this to ensure that this is effective against enveloped viruses".* • (C) *"The main patient isolation room should be cleaned at least once a day. Body fluid spills should be decontaminated promptly".* • (C) *"Only cleaning (detergent) and disinfectant products supplied by employers are to be used. Products must be prepared and used according to the manufacturers' instructions and recommended product 'contact times' must be followed. If alternative cleaning agents/disinfectants are to be used, they should only on the advice of the IPCT and conform to EN standard 14476 for viricidal activity".* • (C) *"An increased frequency of decontamination should be incorporated into the environmental decontamination schedules for areas where there may be higher environmental contamination rates such as: a) toilets/commodes, particularly if patients have diarrhoea; b) 'frequently touched' surfaces such as medical equipment, door/toilet*								We also say that shared equipment only to be used in the same zone.	

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	handles and locker tops, patient call bells, over bed tables and bed rails should be cleaned at least twice daily and when known to be contaminated with secretions, excretions or body fluids". • (C) *"Domestic/cleaning staff performing environmental decontamination should: a) ideally be allocated to specific area(s) and not be moved between COVID-19 and non-COVID-19 care areas; and b) be trained in which personal protective equipment (PPE) to use and the correct methods of wearing, removing and disposing of PPE".* • (Routine decontamination of reusable non-invasive patient care equipment) – gives flow chart for decontamination process.									
5.3 - Laundry	• (A) Uniforms should be transported home in a disposable plastic bag. [has risks] • (A) *"Any towels or other laundry used by the individual should be treated as infectious and placed in an alginate bag then a secondary clear bag. This should then be removed from the isolation room and placed directly into the laundry hamper/bag. Take the laundry hamper as close to the point of use as possible, but do not take it inside the isolation room".*	19		21 22 23					(13) We have recommended that it is best to launder scrubs and uniforms on site and not take them home. Plus, to not shake laundry and bag and store	**We recommend that laundry staff should wear full PPE because there is a significant risk of the virus being thrown into the air from bedding while handling.**

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	• (C) [Gives guidance on not shaking linen, not putting in surfaces etc and says care to not infect laundry staff including through their mucus membranes - but then only recommends gloves and apron and not a mask]. • (C) *"Healthcare facilities should provide changing rooms/areas where staff can change into uniforms on arrival at work".* • (C) *"Organisations may consider the use of theatre scrubs for staff who do not usually wear a uniform but who are likely to come into close contact with patients (for example, medical staff)".* • (C) *"Healthcare laundry services should be used to launder staff uniforms. If there is no laundry facility available, then uniforms should be transported home in a disposable plastic bag. This bag should be disposed of into the household waste stream. Uniforms should be laundered: a) separately from other household linen, b) in a load not more than half the machine capacity, c) at the maximum temperature the fabric can tolerate, then ironed or tumbled-dried".* • (C) *"Note: It is best practice to change into and out of uniforms at work and not wear them when travelling; this is based on public perception*								separately by zone so the people doing the laundry will take greater care to not get infected themselves or spread the virus. Laundry staff should wear full PPE.	

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	rather than evidence of an infection risk. This does not apply to community health workers who are required to travel between patients in the same uniform"									
5.4 - Solid waste disposal	• (A) Bag all waste • (C) *"Large volumes of waste may be generated by frequent use of PPE; advice from the local waste management team should be sought prospectively on how to manage this".* • (C) *"Dispose of all waste as clinical waste".* • (C) *"Waste from a possible or a confirmed case must be disposed of as* ***Category B waste****. The transport of Category B waste is described in* ***Health Technical Memorandum 0701: Safe management of healthcare waste.*** *Disposal of all waste related to possible or confirmed cases should be classified as infectious clinical waste suitable for alternative treatment, unless the waste has other properties that would require it to be incinerated".*								(12) Recommended to store solid waste by zone to pay particular care with handling the waste from the red and amber zones. Waste from the red and amber zones to be disposed of through the hazardous / clinical waste channel. This is in line with PHE recommendations except we are also including waste from the amber zone also.	This will align with UK Govt requirements.

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5.5 - Management of incontinence pads, faeces and urine	• (A) *"Waste such as urine or faeces from individuals with possible or confirmed COVID-19 does not require special treatment and can be discharged into the sewage system. If able, the individual can use their en-suite WC".* • (C) *"Initial research has identified the presence of COVID-19 virus in the stools and conjunctival secretions of confirmed cases. All secretions (except sweat) and excretions, including diarrhoeal stools from patients with known or possible COVID-19, should be regarded as potentially infectious".* [agreed – but the point above could be read that faeces is not infectious – so these two points contradict each other] • (C) *"An increased frequency of decontamination should be incorporated into the environmental decontamination schedules for areas where there may be higher environmental contamination rates such as: a) toilets/commodes, particularly if patients have diarrhoea".*	20		11 23					(12) We have noted to take particular care because of possible risk from the virus in the stool. This is a precautionary measure. It has also been noted in PHE guidance (B) but not (A).	The virus has been found in the stool several weeks after the person has stopped emitting it as a respiratory symptom. It is not yet known if it can infect someone through the faecal – oral route.
5.6 - Management of bodies of the deceased	• (C) *"The principles of SICPs and TBPs continue to apply whilst deceased individuals remain in the care environment. This is due to the ongoing risk of infectious transmission via contact although the risk is usually lower than for living patients.*			25					Not commented on at this stage in the report.	Not commented on at this stage in the report, **but seems strange that a body bag is not needed –**

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	Where the deceased was known or possibly infected with COVID-19, there is no requirement for a body bag, and viewing, hygienic preparations, post-mortem and embalming are all permitted". **[seems a bit confusing statement?]**									**maybe this comment relates to hospital settings, but even so it seems strange considering how transmittable the virus is?**
6. Staff, training, testing, visitors										
6.1 - Staff health/sickness	• (A) *"Care home staff who come into contact with a COVID-19 patient while not wearing PPE can remain at work. This is because in most instances this will be a short-lived exposure, unlike exposure in a household setting that is ongoing".* **[seems like a big assumption – care staff are with residents regularly and cases of transmission have been seen from short contact]** • (A) All care homes should have a business continuity policy in place and plan for surge capacity for staffing including volunteers. • (A) Staff who have a symptomatic family member must stay home for 14 days.	7 22							(15) We have included the PHE guidance on returning to work following a SARS-COV-2 test. But have also added a note from the CDC on staff who had a positive test but not yet developed symptoms and also recommendations to screen staff on entry, recommending	The PHE guidance covers staff that have had tests, but does not cover the fact that staff may also be asymptomatic or pre-symptomatic. Now that there are the options for more testing of staff and residents in care homes, it might be possible to require that staff have a negative test before returning to work - but this also depends on

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									that staff keep masks on in all zones to respond to the fact that people can be asymptomatic carriers. We recommend daily health checks and regular testing for staff.	how long it takes to get the test results back? What is really needed of regular testing of all staff, even every 2-3 days, but the usefulness of this depends also on how long it takes for the tests to come back.
6.2 - Staff training, hygiene and well-being	• (A) Staff who fall into the clinically vulnerable group should not provide direct care to symptomatic residents. • (A) Ensure staff are provided with adequate training and support to continue providing care to all residents. • (C) Staff should take regular breaks and rest periods. • (C) Domestic/cleaning staff performing environmental decontamination should: be trained in which personal protective equipment (PPE) to use and the correct methods of wearing, removing and disposing of PPE.	22		24					(8 & 9) Staff training is required for all staff in each aspects of the protocol including the zoning, requirements for the zoning and donning and doffing. We have added in some simple exercises that can help people	The hand hygiene exercises are to help build understanding of the critical importance of hand hygiene including when your gloves are on. **Not understanding that you can still transmit the virus when your gloves are on may be one of the major transmission risks in the care home environment.**

Issue	Govt guidance – UK Govt / PHE / NICE etc (some of which is contradictory)	A	B	C	D	E	F	G	Our guidance	Rationale for our recommendations
	("Until you need to take a break" = "a session")	Page number							(Section number)	
									conceptualise how viruses move from hand to surface and back using glitter or turmeric. We are recommending that staff should have the opportunity to shower before leaving for home, to reduce their concern of infecting their family members.	
6.3 - Testing of residents and staff	• (A) – Said would test one to up to 5 residents in a care home, as more would not help management of the outbreak.	6							(2 & 15) We recommend that all residents and all staff should be tested for COVID-19, to enable the care homes to know whether they have	It is very important to consider both symptomatic and pre-symptomatic and asymptomatic cases. And also to recognise that staff pose a significant risk to the residents because they come and go and

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									any asymptomatic cases. And that this should be repeated if anyone shows symptoms of any kind, not just the typical ones. Ideally the staff who come and go each day should be tested on a regular basis, to be able to pick up any staff with asymptomatic COVID, which would then put the residents at risk.	**hence should ideally be tested regularly.** What is really needed is regular testing of all staff, even every 2-3 days, but the usefulness of this depends also on how long it takes for the tests to come back.
6.4 - Visitors	• (A) Family and friends should be advised to not visit care homes, except for exceptional situations such as end of life. Then they must wear PPE and follow social distancing and only one at a time.	21							Same guidance as PHE	

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7. Vulnerability, people with mental health conditions, AGPs										
7.1 - Working with people who are hard of hearing or who have learning difficulties, autism or dementia	• (A) Discusses that people with dementia and cognitive impairments may not be able to explain their symptoms and so the carers need to be observant on changes, including of delirium. For people with a learning disability, autism or both they suggest a link to guidance: https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0031_Specialty-guide_LD-and-coronavirus-v1_-24-March.pdf • (Clinical guide on management of patients with a learning disability or autism) – **in 2018/19 - 41% of people with a learning disability who died, died of a respiratory condition, so they are considered particularly vulnerable.** Gives tips on communicating with the person and their caregiver and different methods of communicating when they do not communicate verbally. • (B) - Gives guidance on PPE when working with people with challenging behaviour (all PPE but eye protection for when with some residents)	6	3						(1 & 7) We have put in a recognition of the difficulty of supporting people with dementia and other health conditions during this outbreak. We have made some best-case scenario suggestions where staff are locked in with the residents and do not go out, with very limited outside visitors for only essential activities. But also acknowledged this may not be possible, so have recommended	We have recognised the challenges of supporting people with different kinds of disabilities during this outbreak and the additional risks for transmission. We have given the best-case scenario but if this is not possible strengthened recommendations for PPE, particularly face masks and face shields when engaging with people who you are likely to go close to.

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									attention on ensuring full PPE at all times including goggles / face shield and face masks because of likely close contact. We have also recommended wearing a mask and face shield when engaging with someone who has hearing difficulties.	
7.2 - Who is considered most vulnerable and requirements for each	(A) States: • Anyone who falls under the category of extremely vulnerable should follow the Shielding guidance to protect these individuals. • Anyone aged 70 years or older (regardless of medical conditions) should follow social distancing guidance for the clinically vulnerable. • Anyone aged under 70 years with an underlying health condition – for most this will align with eligibility for the flu jab on medical grounds –	9								

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	should follow social distancing guidance for the clinically vulnerable									
7.3 - Use of nebulisers and chest compressions	• (C) *"Certain other procedures or equipment may generate an aerosol from material other than patient secretions but are not considered to represent a significant infectious risk. Procedures in this category include administration of pressurised humidified oxygen, entonox or medication via nebulisation".* • (C) *"NERVTAG advised that during nebulisation, the aerosol derives from a non-patient source (the fluid in the nebuliser chamber) and does not carry patient-derived viral particles. If a particle in the aerosol coalesces with a contaminated mucous membrane, it will cease to be airborne and therefore will not be part of an aerosol. Staff should use appropriate hand hygiene when helping patients to remove nebulisers and oxygen masks".* • (C) *"Chest compressions and defibrillation (as part of resuscitation) are not considered AGPs; first responders (any setting) can commence chest compressions and defibrillation without the need for AGP PPE while awaiting the arrival of other clinicians to undertake airway manoeuvres".*			31					(16) The use of pressurised humidified oxygen, Entonox or medication via nebulisation are not considered to represent a significant infectious risk. This is from current UK government guidance. We also add that there are other methods that are equally effective for giving medication to asthmatics or those with lung disease, but which do not use a nebuliser (e.g. a holding	Follows UK guidance while giving an alternative (possibly even safer) option.

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									chamber). This was based on what was done in Belgium.	

8. Other references

The following government references are additional to the ones in Section 2 above.

8.1 Other UK Govt references

- Department of Health (2013) Environment and sustainability Health Technical Memorandum 07-01: Safe management of healthcare waste, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/167976/HTM_07-01_Final.pdf
- NHS (24 March 2020 Version 1) Clinical guide for front line staff to support the management of patients with a learning disability, autism or both during the coronavirus pandemic – relevant to all clinical specialities, Speciality guides for patient management during the coronavirus pandemic, https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0031_Specialty-guide_LD-and-coronavirus-v1_-24-March.pdf
- No author (no date) Routine decontamination of reusable non-invasive patient care equipment
- UK Gov (6 April 2000) COVID-19: Guidance for supported living provision, https://www.gov.uk/government/publications/covid-19-residential-care-supported-living-and-home-care-guidance/covid-19-guidance-for-supported-living-provision
- UK Gov Ethical framework for adult social care: https://www.gov.uk/government/publications/covid-19-ethical-framework-for-adult-social-care
- UK Gov Guidance for employers and businesses: https://www.gov.uk/government/publications/guidance-to-employers-and-businesses-about-covid-19
- UK Gov, NHS: COVID-19: Hospital discharge requirementshttps://www.gov.uk/government/publications/coronavirus-covid-19-hospital-discharge-service-requirements
- UK Govt – social care app - https://www.gov.uk/government/news/dedicated-app-for-social-care-workers-launched
- UK Govt (24 April 2020) COVID-19: Guidance for care staff supporting adults with learning disabilities and autistic adults, https://www.gov.uk/government/publications/covid-19-supporting-adults-with-learning-disabilities-and-autistic-adults
- UK Govt (9 April 2020) The Mental Capacity Act (2005) (MCA) and Deprivation of Liberty Safeguards During the COVID-19 Pandemic, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878910/Emergency_MCA_DoLS_Guidance_COVID19.pdf

8.2 Other guidance for care homes

- British Geriatric Society (BGS) guidance on managing the COVID-19 pandemic in care homes: https://www.bgs.org.uk/resources/covid-19-managing-the-covid-19-pandemic-in-care-homes

8.3 Zoning / traffic control bundling

Lessons learned about efficacy of zoning (known as Traffic Control Bundling) in hospital contexts after SARS in 2003:

- Yen, M.Y. *et al* (2006) Using an integrated infection control strategy during outbreak control to minimize nosocomial infection of severe acute respiratory syndrome among healthcare workers. *Journal of Hospital Infection*, Volume 62, Issue 2, February 2006, Pages 195-199. https://www.sciencedirect.com/science/article/pii/S0195670105001258
- Yen, M.Y. *et al* (2011) Taiwan's traffic control bundle and the elimination of nosocomial severe acute respiratory syndrome among healthcare workers. *Journal of Hospital Infection*, Volume 77, Issue 4, April 2011, Pages 332-337. https://www.sciencedirect.com/science/article/pii/S019567011000530X

Application of the Traffic Control Bundling concept to COVID-19 for care facilities in 2020:

- Yen, M.Y. *et al* (2020) Recommendations for protecting against and mitigating the COVID-19 pandemic in long-term care facilities. *Journal of Microbiology, Immunology and Infection.* https://www.sciencedirect.com/science/article/pii/S1684118220300979?via%3Dihub

8.4 Other PPE guidance

The WHO document about what kind of PPE can be re-used, and what disinfection methods are suitable, some of which we have integrated into our strategy:

- WHO (2020) *Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages: Interim guidance.* https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC_PPE_use-2020.3-eng.pdf

CDC donning and doffing guidance, which has the correct hand hygiene steps:

- Available here: https://www.cdc.gov/coronavirus/2019-ncov/downloads/A_FS_HCP_COVID19_PPE_11x17.pdf

8.5 A-symptomatic and pre-symptomatic infection and transmission risks for COVID-19

- Wei et al (2020) Presymptomatic Transmission of SARS-CoV-2 – Singapore, January 23 – March 16, 2020. Available here: https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6914e1-H.pdf
- Kimball et al (2020) Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility – King County, Washington, March 2020. Available here: https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6913e1-H.pdf
- Arons et al (2020) Presymtomatic SARS-CoV-2 Infections and Transmission in a Skilled Nursing Facility. Available here: https://www.nejm.org/doi/pdf/10.1056/NEJMoa2008457?articleTools=true
- Gandhi et al (2020) Asymptomatic transmission, the Achilles' Heel of Current Strategies to Control Covid-19. Available here: https://www.nejm.org/doi/pdf/10.1056/NEJMe2009758?articleTools=true