



South West London
Clinical Commissioning Group

Infection Prevention and Control update training for GPN's

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November 2021



Bringing together Croydon, Kingston, Merton, Richmond, Sutton and Wandsworth

Aim

- To update staff on key Infection Prevention and Control principles
- To promote evidence based best practice
- To safeguard residents, patients, visitors, the public and staff from the risk of acquiring Healthcare Associated Infections (HCAIs)



What is a healthcare associated infection (HCAI?)

Any infection acquired;

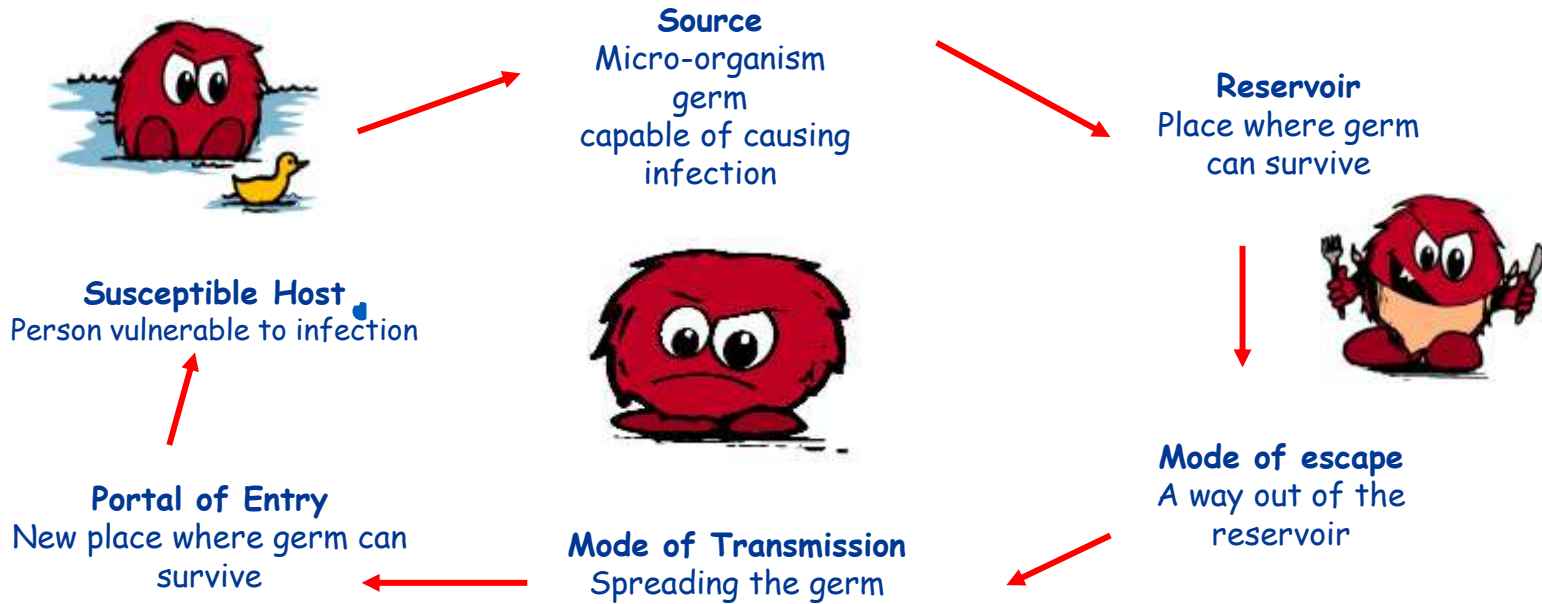
- As a direct result of treatment in, or contact with, a healthcare setting.
- As a result of healthcare delivered in the community.

NICE Quality Improvement Guide 2011



How are infections spread?

The chain of infection



▲ Breaking any link in the chain will assist in preventing the spread of micro-organisms



Susceptible Host

- Age
- Underlying disease, Diabetes, Renal Failure
- Immuno- compromised
- Medication- antibiotics/ chemotherapy
- Invasive devices- urinary catheters, peripheral and PICC lines etc.



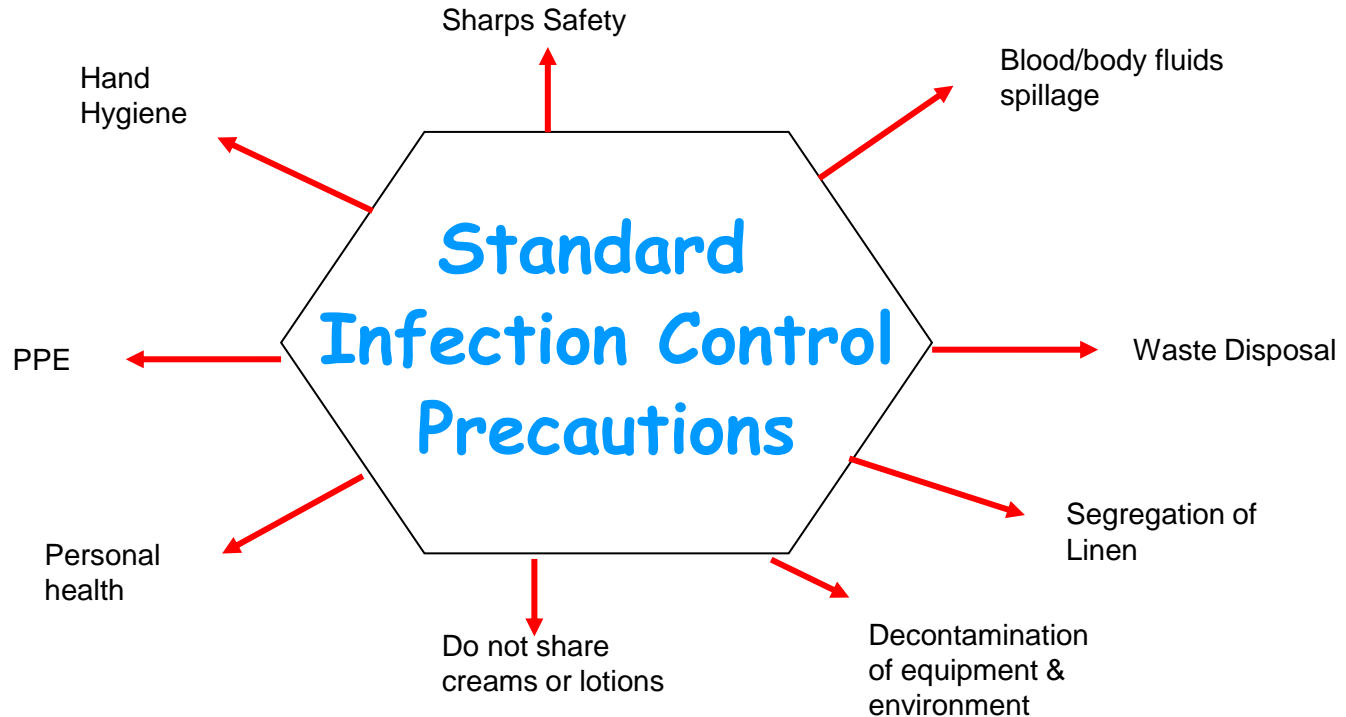
Mode of Transmission

- Contact: direct and indirect
- Droplet
- Airborne
- Percutaneous (sharps)
- Vertical; from mother to baby



Standard Infection Control Precautions

Routine for everyone not just infectious residents



Hand Decontamination



Follow the WHO-

5 moments of hand hygiene



Be clinically prepared

- Sleeves above the elbows
- Keep finger nails short and clean
- No false nails
- No hand or wrist jewellery e.g. wristwatch
- Only 1 plain band / ring is acceptable



Products for hand hygiene

Liquid soap & running water

- Use whenever hands are visibly contaminated with dirt or body fluids
- When caring for people with diarrhoea/vomiting

Alcohol hand rub/gel

Recommended for routine clinical contact.

When hands are visibly clean

On entering and exiting the clinical area



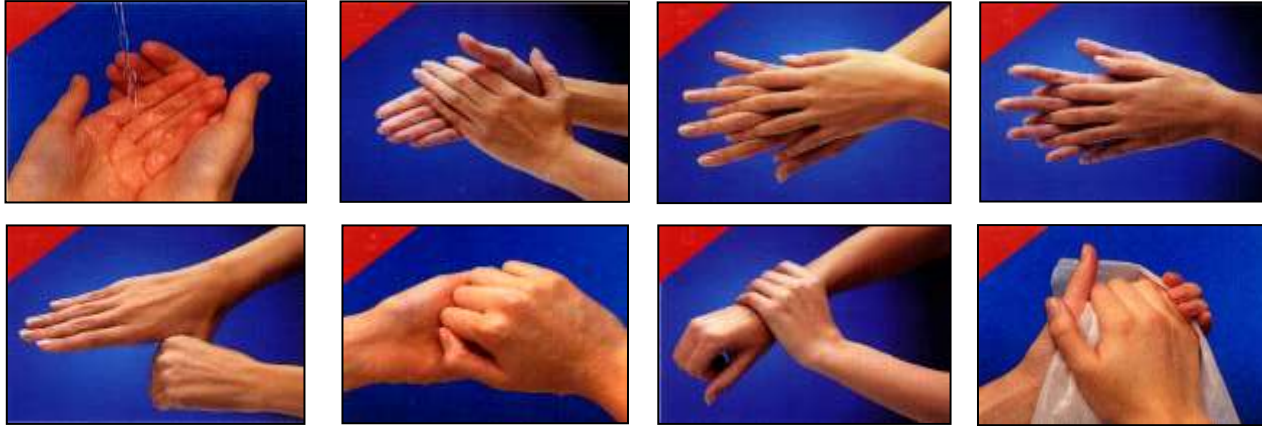
Hand decontamination cont..

- Regardless of which product is used

good technique is essential



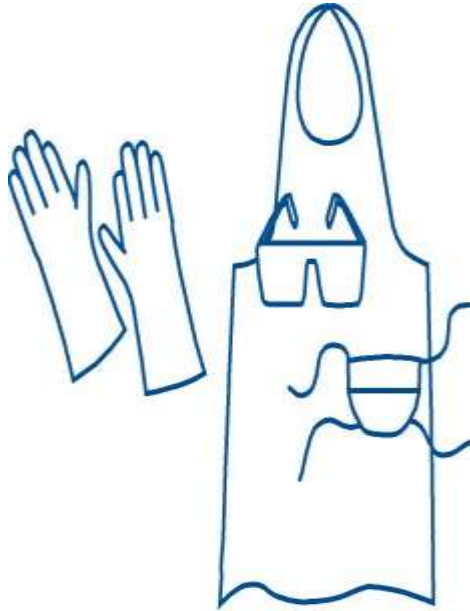
Correct Technique for Hand Hygiene



- 1) Wet hands and apply measure of soap 2) Rub palm to palm 3) Right palm over back of left hand & vice versa 4) Palm to palm, fingers interlaced 5) Rotate right hand around left thumb & vice versa 6) Rub backs of fingers to opposing palms 7) Rotate left hand around right wrist **and forearms** & vice versa 8) Rinse hands and dry thoroughly.
- Steps 2-7 should last 30-60 seconds without adding further water.
For alcohol rub/gel omit steps 1 and 8, keep rubbing until fully evaporated



Personal Protective Equipment



- Risk assess use when indicated
- Use at the point of care
- Remove gloves and aprons immediately after use and always change between procedures and residents
- Discard in clinical waste bin
- Gloves are NOT a substitute for hand hygiene.



Personal Protective Equipment (PPE)

- PPE will only prevent spread of infection if it is: worn appropriately
 - ✓ Used and changed at the right time and in the correct order
 - ✓ Accompanied by good hand hygiene
 - ✓ Readily available, stored safely and in a clean dry area to prevent decontamination.
 - ✓ Located close to point of use
- Mobile phones should not be used whilst wearing PPE
- **All** staff, including cleaners & housekeepers, must be trained in how to use PPE
- Donning and doffing areas should be separate



Safe Disposal of Sharps

Bloodborne viruses exposure

- Hepatitis B 1 in 3
- Hepatitis C 1 in 30
- HIV 1 in 300



Safe Use & Disposal of Sharps

- Dispose of your own sharps
- Dispose immediately at point of use
- Do not re-sheath needles
- Do not dismantle a used needle from the syringe
- Do not pass directly to another person
- All sharps bins must be stored behind a locked door out of reach of residents, the public and others who may be at risk



Your Responsibilities

**Close lid
firmly
when $\frac{3}{4}$
full**



**Close
Temporary
Closure
When Not In
Use**

**Date and Sign
On Assembly**

**Assemble Lid Correctly
Snap Lid On All
Round to ensure that it's Secure**



Management of Body Fluid Exposure

Report it to Manager in charge if you sustain a sharps injury with a contaminated sharp or a body fluid splash to eyes or mouth.

Splashes to oral mucosa and eyes – wash with copious amounts of water or saline

Refer immediately to the nearest A&E for assessment and post exposure prophylaxis if required. Inform them that you have sustained a high risk exposure and require urgent assessment.

- Follow up with Occupational Health Guys and St Thomas's following working day



BLEED IT

Squeeze wound to encourage bleeding



WASH IT

with soap, under running water



COVER IT

with a waterproof dressing



REPORT IT

Occupational Health (Ext 4351) Mon-Fri (9.00 – 16.00 hours) and Out of hours A & E (Ext 3302). Inform your manager.



Vaccinations

DoH Green book)

- Health & Safety at work act (1974) employers & employees and self employed have duties to protect others who may be affected by their work.
- Employees of healthcare staff need to demonstrate an effective employee immunisation programme is in place.



Green book vaccinations

- Routine immunisations tetanus, diphtheria, polio and MMR.
- MMR especially important to prevent transmission from staff to vulnerable patients.
- Hep B for HCW in contact with blood or blood stained body fluids.
- Varicella for susceptible HCW who have direct patient contact. Those with definite history are considered protected.
- Flu/Covid-19



Waste disposal

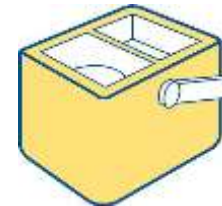
- **Clinical waste (offensive)** **Yellow bag**
 - Gloves, aprons, used dressing packs, unused clinical items – for non-infectious residents
- **Clinical (infectious) waste** **Orange**
 - Infected clinical waste eg dressing used on residents with a known infection
- **Domestic waste** **Black**
 - Flowers, food, packaging contaminated with food
- **Recyclable waste** **Clear**
 - Paper cups, newspapers, paper towels



Spills of blood and body fluids

➤ Hard Surfaces

- Use Hazard notice if necessary to warn people
- Never combine chemicals or add directly to acidic body fluids
- Collect body fluid spillage kit, follow instructions
- Put on PPE
- Remove PPE safely and discard as clinical waste when finished
- **Blood** - use 10,000ppm chlorine releasing agent or equivalent. Follow instructions in blood spillage kit.
- **Urine, vomit, faeces** - remove spill, when visibly clean wipe area with 1,000 ppm chlorine releasing agent



Environment & Equipment

- Should be clean, free from dust and spillages
- Correct solutions used for body fluid spillages
- Ensure cleaning equipment is clean, stored dry and is colour coded.
- Solutions should be made up fresh at the correct dilution, dated and a record made.
- Multi use equipment slings etc should be decontaminated between uses or dedicated. Residents equipment can be a source of cross infection
- Equipment must be in a good state of repair to allow adequate cleaning
- Maintain regular Equipment Cleaning Book detailing cleaning plans and schedules
- Use the correct cleaning product in accordance with the manufacturers instructions
- Covid A combined detergent/disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.)); or a general-purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm av.cl



Pseudomonas aeruginosa

Pseudomonas aeruginosa is a Gram-negative bacterium often found in soil and ground water. *P. aeruginosa* is an opportunistic pathogen and it rarely affects healthy individuals. It can cause a wide range of infections, particularly in those with a weakened immune system eg cancer patients, newborns and people with severe burns, diabetes mellitus or cystic fibrosis.

P. aeruginosa infections are sometimes associated with contact with contaminated water. In hospitals, the organism can contaminate devices that are left inside the body, such as respiratory equipment and catheters. *P. aeruginosa* is resistant to many commonly-used antibiotics.



Prevention of Pseudomonas Contamination

- Only use the hand wash basin for **hand washing**
- **Do not use hand wash basins for the following:**
 - disposal of body fluids.
 - Washing patient/resident equipment
 - Storage of used equipment awaiting decontamination.
 - used environmental cleaning fluids



Dept of Health 2012 Water sources and potential *Pseudomonas aeruginosa* contamination of taps and water systems:
Advice for augmented care units





Emerging and re-emerging infections

- Carbapenemase producing Enterobacteriaceae (CPE) 2013
- Mycobacterium chimaera 2015 (Water) Potential link with heater coolers in cardiothoracic surgery
- Candida Auris skin fungus grows as yeast 2017
- Gram negative blood stream infections
- SARS-2-Cov-19



Community Prevalence

PHE Positive Tests Activity per 100k Population (Rolling 7 Day Period)

Borough	21st to 27th October	28th Oct to 3rd November	>=100	>=250	>=5 (seven day shift)	Week to Week Movement
Croydon	208.61	224.93	High Alert		Warning	↑ 8.0%
Kingston	325.19	288.75	High Alert	Alarm		↓ -11.0%
Merton	267.01	261.28	High Alert	Alarm		↓ -2.0%
Richmond	436.80	302.85	High Alert	Alarm		↓ -31.0%
Sutton	469.00	426.83	High Alert	Alarm		↓ -9.0%
Wandsworth	197.68	193.37	High Alert			↓ -2.0%
SWL	288.04	263.26	High Alert	Alarm		↓ -9.0%
London	233.18	221.97	High Alert			↓ -5.0%



>=60 Trigger



>=100 High Alert



>=20 Warning



>=5 (seven-day shift) warning

Note: Rates here will not reconcile to NHSe figures due to a difference in reporting periods and population numbers used

Community Prevalence

PHE Positive Tests Activity in the last 7 days

Borough	Positive Tests	Positive Tests Per 100k Pop
Croydon	951	224.93
Kingston	626	288.75
Merton	593	261.28
Richmond	676	302.85
Sutton	820	426.83
Wandsworth	806	193.37
Total	4,472	263.26

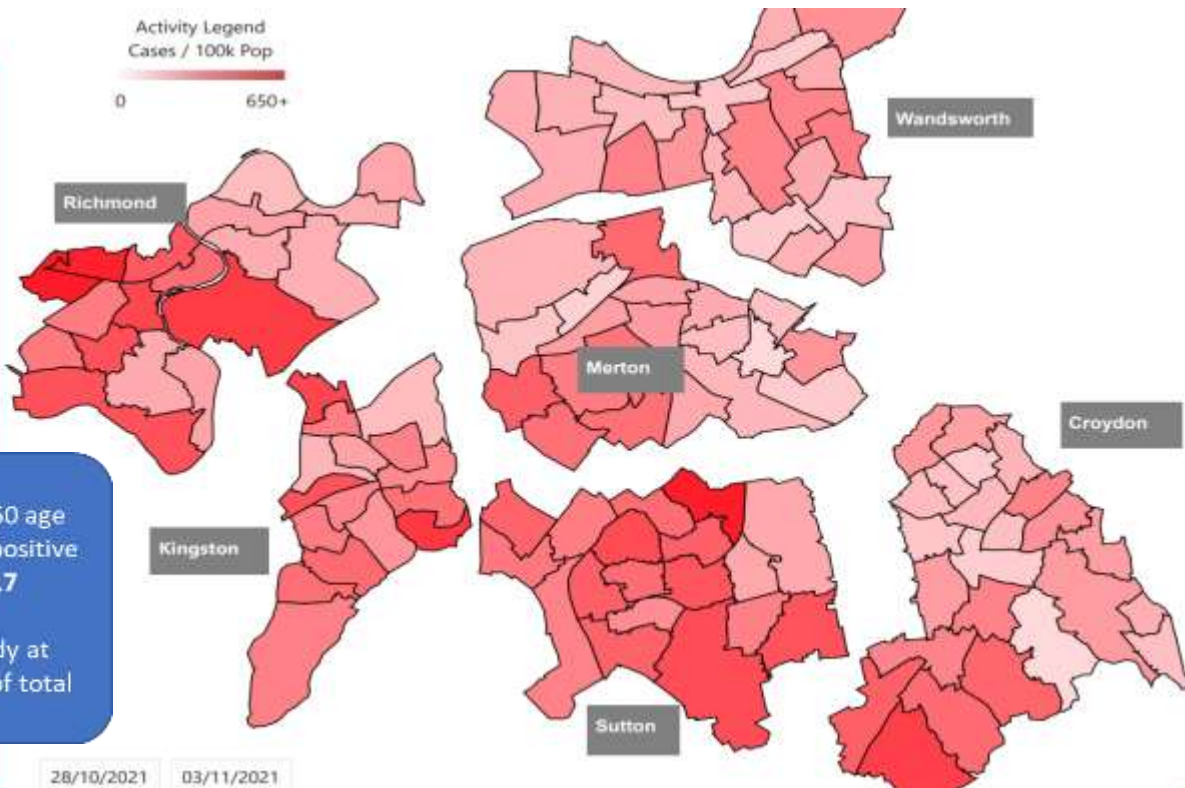
Testing in the last 7 days

Borough	Total Tests	Tests / 100k Pop
Croydon	3,475	822
Kingston	1,658	765
Merton	2,037	898
Richmond	2,089	936
Sutton	2,121	1104
Wandsworth	2,947	707
Total	14,327	843

Over 60 age group positive
417
Steady at
8-9% of total

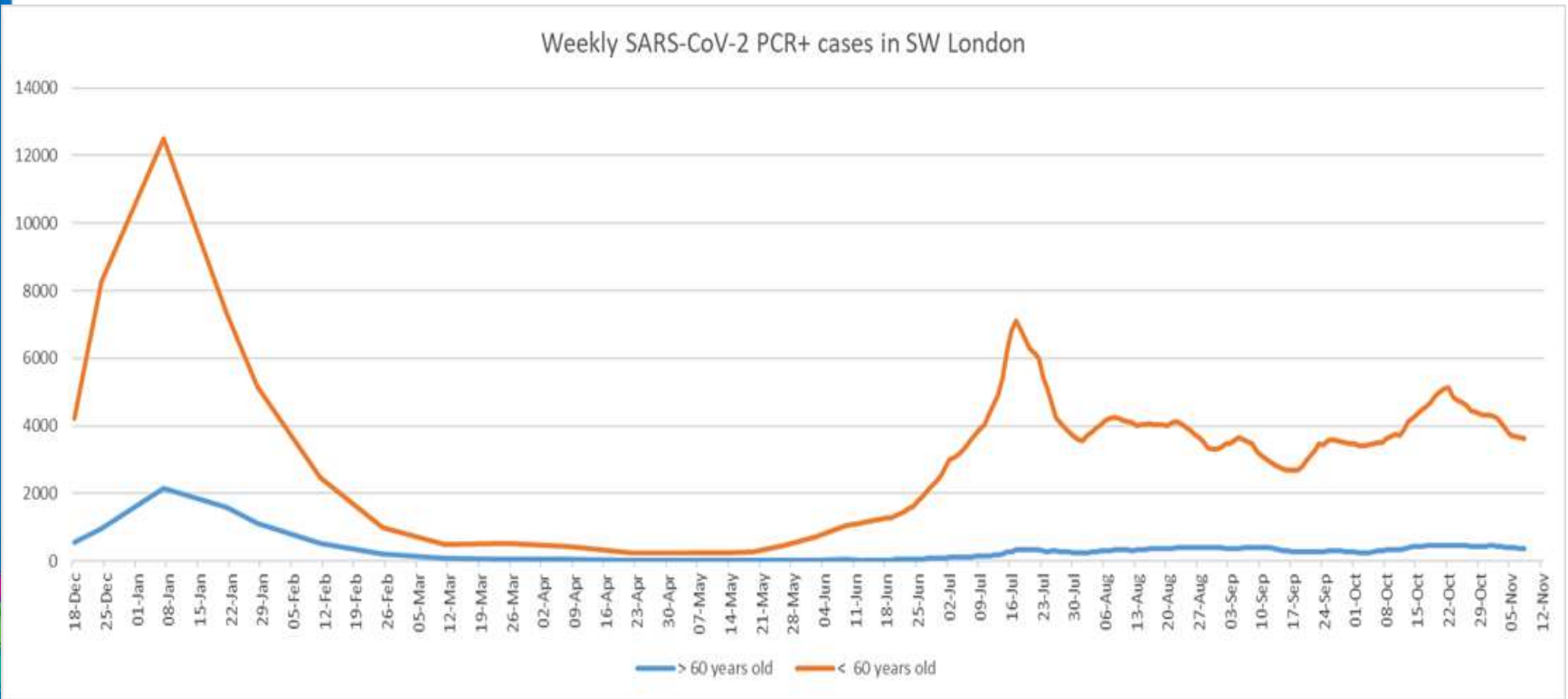
Activity Legend
Cases / 100k Pop

0 650+

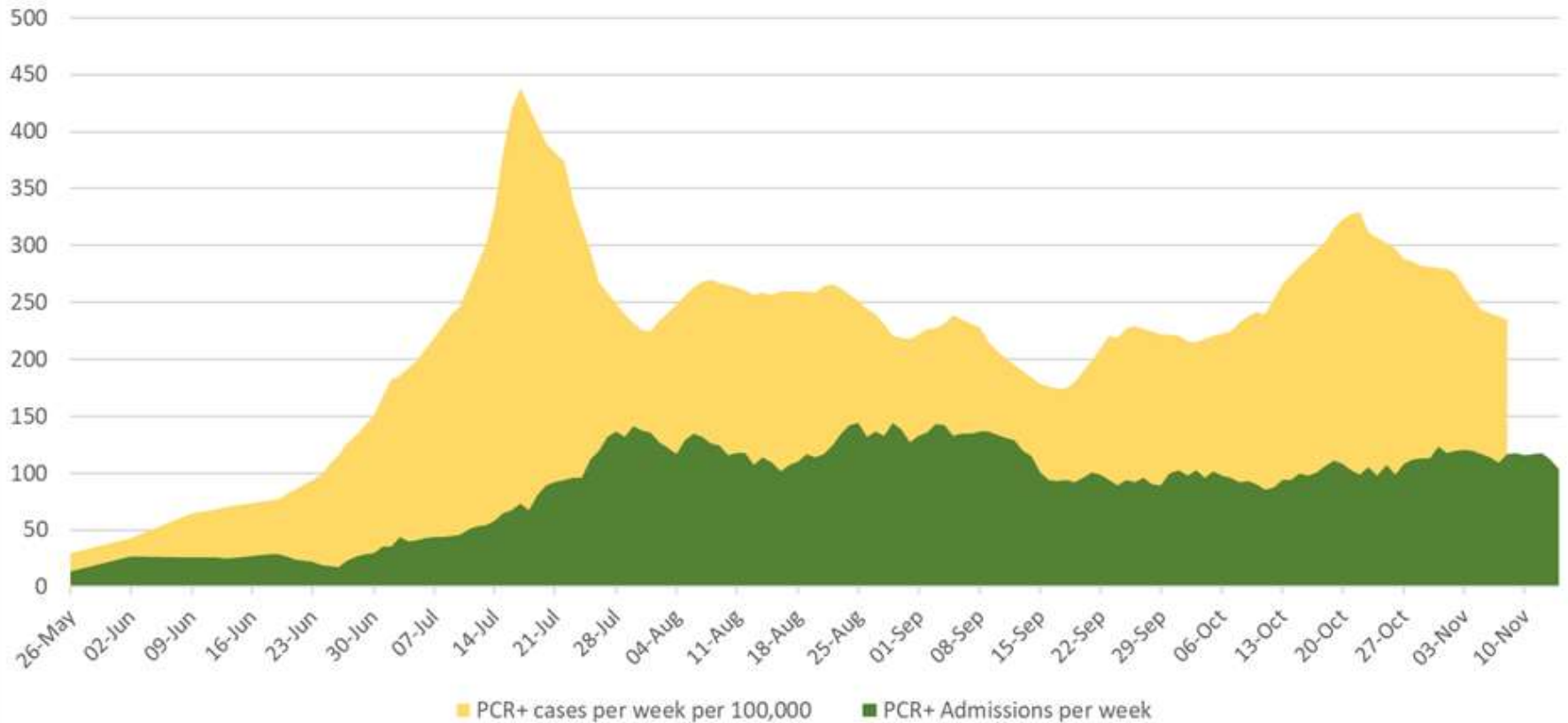


28/10/2021 03/11/2021

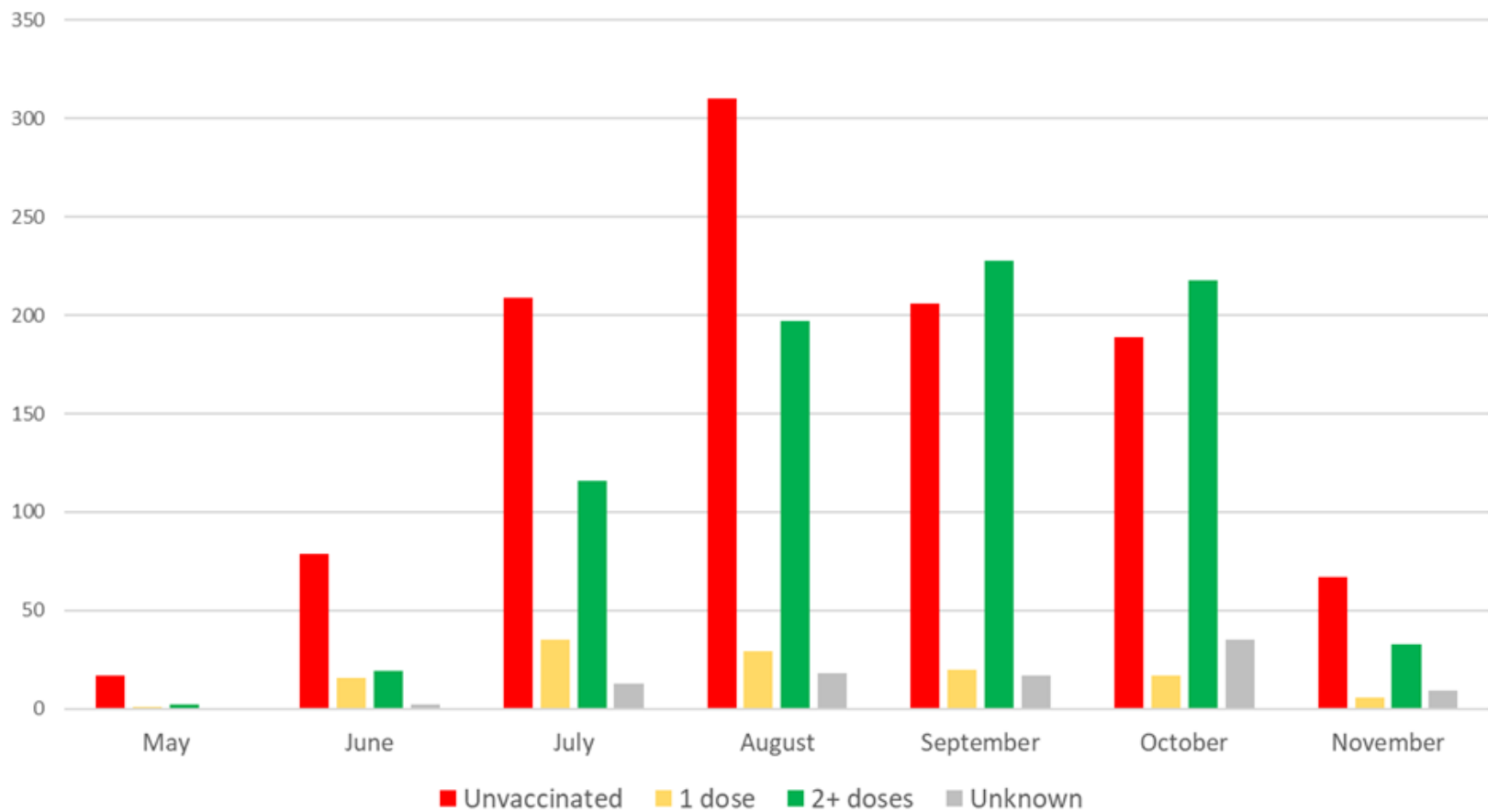
Community Prevalence



SARS-CoV-2 PCR+ Community Rate per 100,000 and new inpatients in SW London



Vaccination Status of SARS-CoV-2 PCR+ admissions in SWL hospitals

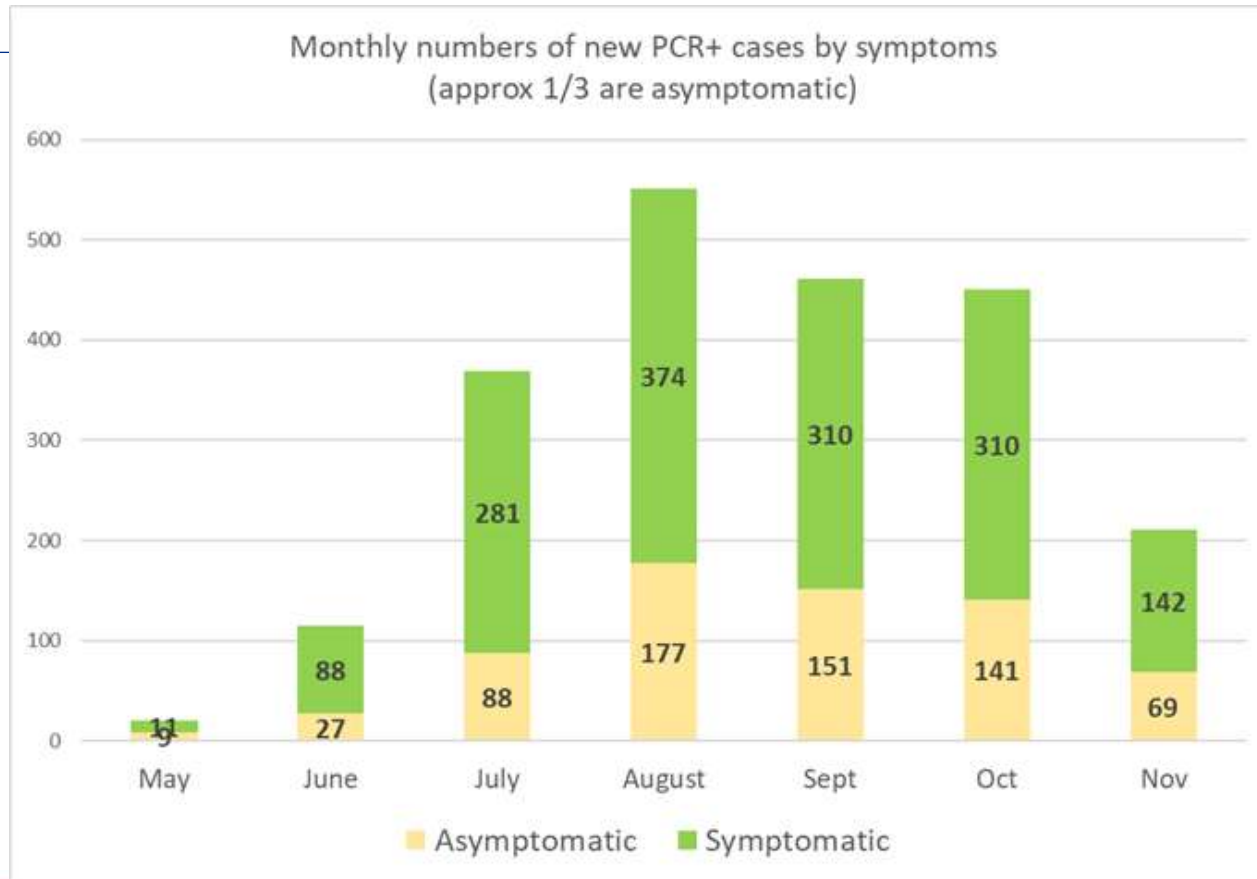


Seeing a clear preponderance of unvaccinated patients being admitted - ?effect of booster campaign?

Note low number of boosted patients admitted – would be interesting to correlate with total numbers boosted.

		Doses of Vaccine				Unknown/not recorded	Grand Total	% >= 2 doses
		0	1	2	3			
Trust	CUH	390	32	201	2	33	658	32%
	ESTH	179	29	294	0	37	539	59%
	KH	209	28	123	0	7	367	34%
	RMH	2	1	0	0	1	4	0%
	SGH	293	34	193	13	15	549	39%





How does COVID-19 spread?

Exposure to Respiratory droplets that may be microscopic

- Coughing/ sneezing
- Requires close contact (within 2m)

Contact with respiratory secretions

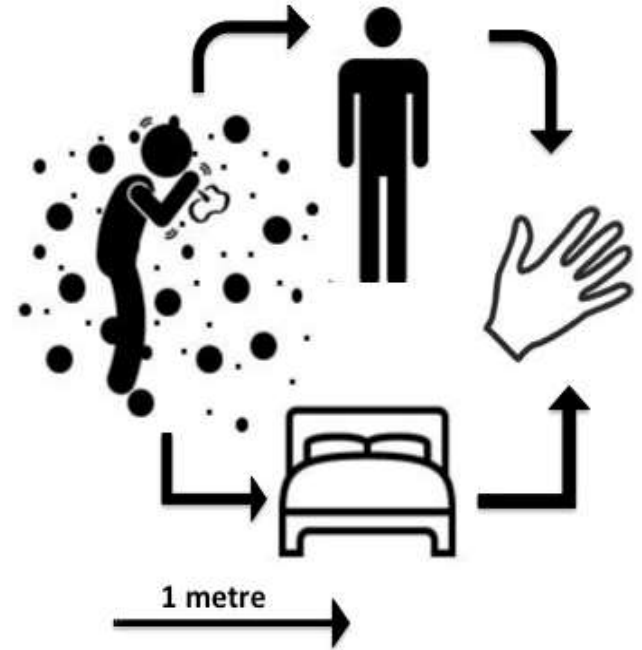
hands

contaminated surfaces

tissues

Transferred by touching nose, mouth, eyes

with contaminated hands



Measures to prevent spread

- Vaccination
- Ventilation
- Decontamination of the environment and equipment
- Appropriate use of PPE
- Hand hygiene
- Social distancing
- Early identification and treatment
- Observe cough etiquette



More flexible approach to patient consultations 19th Oct

- [Recommendation 4: a more flexible approach to patient consultations in primary care and general practice - GOV.UK](https://www.gov.uk/government/consultations/more-flexible-approach-to-patient-consultations-in-primary-care-and-general-practice)
www.gov.uk
- Face-to-face consultations can now go ahead where this is safe for patients and staff, whilst recognising that telephone and video consultations continue to have an important role. The decision about when to see patients face to face or through video consultation is for local clinical leaders based on a number of factors, including patient needs and preferences, configuration of premises, local capacity and the ability to ventilate spaces.



-
- Patients will continue to be required to wear a face covering if attending a face-to-face consultation unless exempt.
 - The importance of hand and respiratory hygiene should be emphasised, along with other control measures to minimise the risk of transmission of infection.
 - Patients with symptoms of coronavirus (COVID-19) or influenza should telephone their GP or primary care provider before attending an appointment.



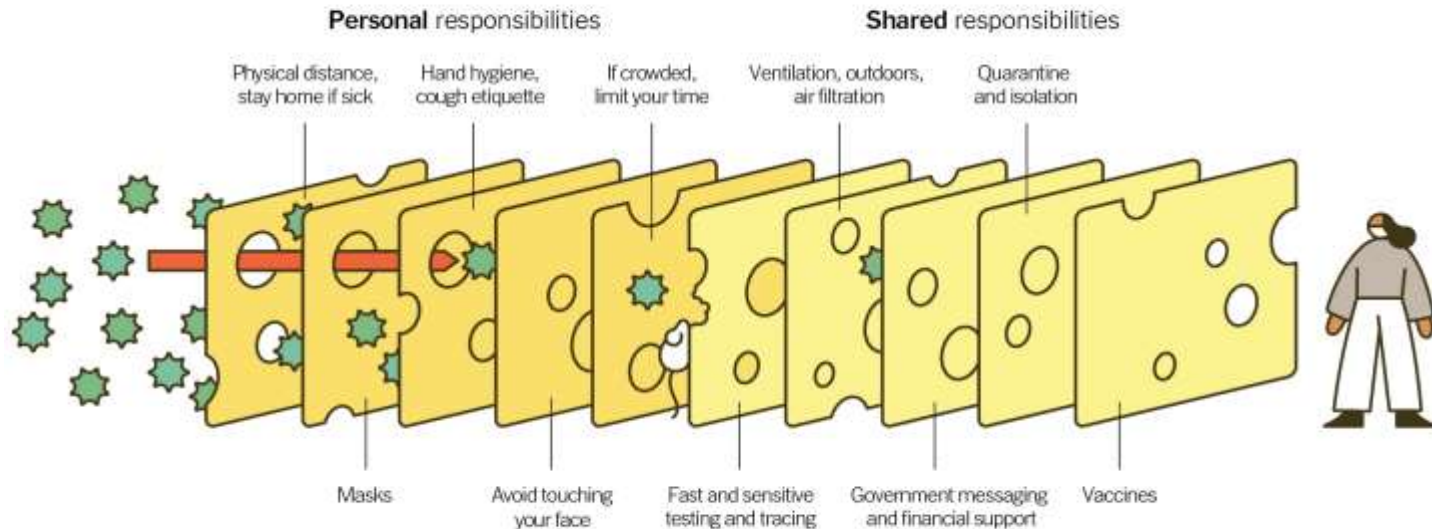
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- Social distancing in low risk areas may be reduced to 1 meter in line with new WHO guidance
 - Undertake local risk assessments, including the hierarchy of controls, to identify where physical distancing can safely be reduced.
 - This decision will need to be based upon factors such as the configuration of premises, access, ventilation and so on. [Health Building Note 11-01: Facilities for primary and community care services](#) provides best practice guidance for these settings.



Swiss cheese risk reduction model

Multiple Layers Improve Success

The Swiss Cheese Respiratory Pandemic Defense recognizes that no single intervention is perfect at preventing the spread of the coronavirus. Each intervention (layer) has holes.



Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason. Illustration by Rose Wong



Gram negative Bloodstream infections (GNBSI's)

- NHS ambition to halve healthcare associated GNBSI's now extended to 2024.
- Whilst gram positive BSI's such as MRSA have fallen by over 50% gram negatives continue to rise.
- Increase in England between 2013 & 2017 21.7%
- *Escherichia coli* cause more than 1/3 of all BSI's so plan to concentrate on reducing these by 10% for next 2 years.
- Highest rates in individuals over 75 years, living at home.
- Roughly 2/3 community acquired
- Risk factors, urosepsis, dehydration, biliary sepsis, and neutropenia.



Focus

- Antimicrobial stewardship
 - **TARGET**
- Treat
- Antibiotics
- Responsibly
- Guidance
- Education
- Tools

Target Antibiotic toolkit (<http://www.rcgp.org.uk/clinical-and-research/target-antibiotics-toolkit.aspx>)



NHSE NELCSU Audit process

Standards being audited	
Standard 1	The Management of Infection Prevention and Control (General Management)
Standard 2	The Management of Infection Prevention and Control (Staff Health)
Standard 3	Environment
Standard 4	Hand Hygiene
Standard 5	Personal Protective Equipment (PPE)
Standard 6	Prevention and management of spillages of blood & high risk body fluids
Standard 7	Safe handling and disposal of sharps
Standard 8	Waste Management Policy and Procedures
Standard 9	Management of Specimens
Standard 10	Decontamination of medical devices
Standard 11	Clinical Rooms
Standard 12	Vaccine Storage and Cold Chain
Standard 13	Notification of infectious diseases and contamination
Standard 14	Antimicrobial Stewardship (AMS)
Standard 15	Minor Surgery facilities



Thank you for listening

- Remember to go spread the word,
not the germs!
- Any Questions?



References

- PHE NHS “COVID-19 guidance for the remobilisation of services within healthcare settings” August 2020
- [Recommendation 4: a more flexible approach to patient consultations in primary care and general practice - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/recommendation-4-a-more-flexible-approach-to-patient-consultations-in-primary-care-and-general-practice)
- NHS “National standards of healthcare cleanliness” April 2021
- “Managing the risk of sharps injuries”. NHS Employers December 2015
- Department of Health “Environment and sustainability HTM 07-01 Safe management of healthcare waste” 2013
- PHE “Guidelines for the management of norovirus outbreaks in acute and community health and social care settings” March 2012
- PHE/ NHSE “Preventing healthcare associated Gram-negative bloodstream infections (GNBSI)” An improvement resource to help health and social care economies reduce the number of GNBSIs, with an initial focus on Escherichia coli (E.coli). May 2017
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/215179/dh_132538.pdf
- <https://www.gov.uk/government/collections/pseudomonas-aeruginosa-guidance-data-and-analysis>

