Question and Answer Document - Covid-19 and Returning to School

This week the government has issued the following document for residential schools.

Coronavirus (COVID-19): guidance on isolation for residential educational settings.

The government document does not necessarily answer all the questions our members have raised. A small task group from MOSA Council have taken advice from a leading virologist in compiling answers to try to fill the gaps. Below is a question and answer discussion document to help with the health and medical aspects of the reopening.

All schools are finding themselves in a rapidly evolving situation. Every school is unique and distinct issues will exist in each establishment. As such you will need to undertake independent risk assessments for your environment. The document contains pertinent sources of information in a structure that assists you to factor the relevant points into the planning for your school's individual circumstances.

These answers are current as of the 29th May 2020 and are likely to be updated as more information becomes available.

Boarding Environment

Each school is different and particular issues will be raised in their respective boarding situation. Schools will need to perform individual risk assessments for their given setting.

An epidemic protocol may be an effective document to help with management of a positive CV-19 test. The pupil will need to be isolated and therefore measures set up prior to any 'outbreak' will be implemented. Overseas pupils may be managed in an isolation setting in the school, or they may be required to go to their guardians. Any measures ought to be updated regularly and communicated effectively with parents and guardians. Setting aside a hostel/boarding house for isolation may be considered the most effective management of unwell pupils.

Independent schools have been very successful with their 'virtual' teaching. It may be appropriate for schools to run two parallel systems for the foreseeable future. Many parents may be nervous about placing their children back into the school community and therefore running a dual system may offer educational support and contact during this phased return.

Q: If we have a case in a boarding house does the school treat the entire house as one household?

Schools will need to think about how they can organise their pupils into extended bubbles of up to 15 pupils. These bubbles need to remain consistent and protected, which may prove to be challenging in a boarding school.

Q: Any advice on social distancing in a boarding house would be useful.

Social distancing will be recommended throughout the school. One-way systems may need to be installed with specific assessment of pinch-points and areas that pupils may congregate.

Q: Do we need to remove sofas and communal areas?

Sofas and a small communal area for the 'bubble' of 15 pupils do not need to be removed. Any areas where larger groups are able to congregate need to be temporarily dismantled.

Q: Do all the boarders need to have single rooms? Many schools have dormitories for younger pupils.

Reducing the amount of pupils boarding may need to be considered. It is entirely dependent on how the boarding is set up. Boarders sharing dormitories will be a greater risk than pupils in single rooms. The school may consider giving priority to:

- *specific year groups and/or*
- *pupils living in more isolated/remote areas.*
- *Boarders who are relatively close to the school may be asked to attend as a day pupil.*

Q: May we know more about the school &/ the house's system if a boarder is found with coronavirus during the school term? Will the student be sent to the NHS system or can they be sent to a nearby private hospital if requested by the parents? Also, do you have any idea which private hospitals & NHS hospitals near our school have paediatric dept., emergency dept. & intensive care unit?

If a pupil presents with concerning CV-19 symptoms, medical assessment and support will be sought and admission to hospital will be defined by local guidelines.

Q: If there is a positive CV-19 test in the school environment will schools be given access to test at the same level as care homes?

The contact tracing that has commenced should become more sophisticated and will help to identify necessary additional testing. If there is an outbreak within one of the school 'bubbles'

then early contact with the local PHE will help with management. PHE are increasing their staffing levels and early involvement for advice on management is advisable.

https://www.gov.uk/government/publications/preparing-for-the-wider-opening-of-schools-from-1-june

https://www.gov.uk/guidance/nhs-test-and-trace-how-it-works

Isolation/Quarantine

Q: If all overseas boarders are expected to do two weeks in quarantine before school begins how will this be managed? (Under a government arrangement or will the schools be expected to ask guardians to manage this)

The current UK policy of self-quarantine for foreign arrivals to UK is a challenge. It is possible and likely that quarantine rules will have changed by September 2020 and that they may be targeted to countries with current outbreaks and higher infection numbers, the converse is allowing what they term 'air bridges' to low risk countries. It is possible overseas pupils could quarantine with guardians by prior approval but this would necessitate access to virtual schooling matched with face to face schooling i.e. a dual service.
The issues of foreign students being able to fly, overcoming quarantine restrictions, having a place of safety in the event of becoming unwell with Covid-19 and viewing the UK as a greater risk than their own countries may prevent foreign students enrolling for the academic year 2020/21.

Q: If we manage them in a boarding house in school what will we do if a pupil develops symptoms?

Pupils and staff should be clear on what the common presenting features are (fever, cough, headache, myalgia, fatigue, loss of taste and sense of smell) pupils should be encouraged to contact the health centres promptly and avoid contact with fellow pupils or staff. A clear pupil pathway should exist for managing suspected Covid-19 pupils.
Please also note we recognise many young people are relatively asymptomatic during the illness or may present atypically with rashes or diarrhoea thus staff should assume any pupil may have the infection. At the same time, it is important not to forget the common ailments that will still present i.e. urine infections, hay fever…
Assessment of a pupil should mirror what happens in Primary Care where patients are triaged remotely obtaining a good history, examining a patient should be done using appropriate PPE in a suitable environment (spacious, with good ventilation and easily cleaned) and keeping close contact time to a minimum.
Testing facilities for pupils should have improved by September 2020 allowing for antigen swab testing (see relevant section).
Schools could have a 'treatment escalation plan' (in essence an agreed process of who will look after the pupil, where and how they will transfer sites) for each pupil; ideally sent home (avoiding public transport and with the prior consent of parents to avoid possible shielded adults at home) or to be admitted to a suitable site where they are cared for, potentially a designated 'hot' area of the medical centre. This would require resourcing with PPE and

potential manpower. Previous experience with Noro-virus tells us that this should be a last resort due to the potential for being overwhelmed.
Staff will require training in the care of pupils with this condition, suitable PPE and their prior agreement to undertake this care. School Medical Officers may well get caught up in this process and will thus require similar attention. See clear BMJ guidance on the assessment and care of Covid-19 patients in the community.
https://www.bmj.com/content/368/bmj.m1182

Please note NHS secondary care will only admit ill patients requiring supportive treatment such as oxygen and fluids. In all likelihood hospitals will discharge patients once clinically better but possible whilst still infectious. Thankfully the proportion of adolescent patients requiring hospital support is rare, as age is a major protective factor. This issue requires an MDT approach as it impacts significantly outside of the Health Centre.

Q: The idea of keeping a whole house for isolation is a huge worry.

MOSA recognises the complexity and mixing of pupils and staff in the boarding environment, thus limiting contact is possible but not complete. Likewise, the concept of creating a designated 'hot' site with large capacity within a campus is unlikely to be feasible. Remember the illness is much milder in younger pupils and of shorter duration, the default position should be sending a pupil home with appropriate transport and parental advice and guidance. (See individual treatment escalation plan).

Q: SLT concerned that boarding staff may be expected to do the caring for pupils with CV-19 or suspected CV-19.

MOSA considers asking house staff or matrons to care for Covid-19 cases (suspected or confirmed) to NOT be appropriate when considering the requirement for appropriate PPE use and the clinical skills required to effectively monitor community cases of Covid-19. MOSA would recommend the default position of returning a pupil home or a safe bed in a suitable medically supervised area.

Q: What level of PPE would be expected within a school to nurse the pupil back to health?

There is clear NHS guidance on suitable PPE for health care staff. Please note whilst this is based on best evidence it may also be influenced by wishing to protect supplies of PPE for core NHS staff. The principle of risk reduction as far as possible is sensible and allowing some flexibility for staff confidence/anxiety is more likely to encourage staff engagement.
Staff support, involvement and education is critical to ensure teamwork and engagement recognising that this is not what Health Centre Staff ever expected to do and may have personal or home risks concerning them.
Note the majority of Covid-19 transmission away from caring for patients with active respiratory symptoms is through surface contact thus cleaning and hand washing remains critical.

Equipment deemed suitable is; scrubs/nurse uniform to be worn on site only, an apron, gloves, face visors and masks. See comprehensive document detailing types of masks* https://blog.dentalsky.com/a-guide-to-face-masks/
Face visors can be cleaned and reused, gloves, aprons are to be discarded after use, masks may be used for a session of care i.e. a morning clinic if kept on and not touched.
When considering masks a fit tested FFP3 mask is deemed appropriate for close care during aerosol generated procedures but considering a school setting it may not be available but could be considered appropriate for care of a symptomatic coughing pupil. Likewise FFP2 masks or a surgical 3 ply face mask may be used in conjunction with a face visor.*
A face visor is deemed better than goggles as they reduce the temptation/ability to touch one's face.
Note evidence suggests that face masks are more effective in protecting others by the impact of reducing the dissemination of infected aerosol particles, thus requesting a pupil to wear a mask during contact could be an effective strategy as is good ventilation in a room and restricted contact time between nurse/doctor and pupil.

Antibody Testing

Q: Some schools have procured CV-19 antibody testing kits – is this recommended by DoE/PHE?

The role of antibody testing is unclear and it throws up many questions for Independent Schools. The tests themselves vary in sensitivity and specificity, and have considerable costs attached to them. The Department of Health has approved several tests in the UK including the tests provided by Roche and Abbott. Both need to be taken at least 2 weeks after exposure to achieve the most reliable results, but both have the potential to create false negative readings. The best results seem to come when they are performed by trained medical staff, and the potential for misleading results increases if they are done at home.

The most important point however is we don't know what the test results really mean yet beyond demonstrating having had exposure to Covid-19 in the past. The implication of a positive antibody test in the media has become that one is immune and can relax, however that is by no means clear. We do not know how long the antibodies persist for, and how well a mild exposure to the illness will protect you in future. There is also a danger of setting up a 2 tier system of pupils with positive and negative tests which has implications for mental health, relationships between pupils, and could undermine the cohesion of social distancing and hygiene as a whole. At the current time MOSA would not recommend widespread antibody testing in Independent Schools.

Routine Clinical Checks:

Q: Should schools be doing routine/daily temperature checks?

DfE with guidance from PHE have already stated the following:

"Parents, carers and settings do not need to take children's temperatures every morning. Routine testing of an individual's temperature is not a reliable method for identifying coronavirus"

In MOSA's discussion with PHE it has been confirmed that routine clinical checks of pupils or staff who are asymptomatic have little validity or usefulness and would be impracticable in a school setting.

Q: Can we use ear thermometers?

The only form of temperature check that would be reliable would be a tympanic measurement which would necessitate large numbers of disposable probe covers, and would be extremely time-consuming for little clinical value. It would also mean that social distancing would be negated in order to take the temperature of the pupils or staff members.

Q: Some schools are considering investing in thermal body scanners, is this really necessary?

Screening using hand held non-contact thermometers or skin temperature infrared cameras or even with thermal imaging systems are likely to have false negatives as explained below.

The so-called "thermal scanners" are being marketed as an effective way of mass screening a group of individuals any of whom may have a raised temperature. These are infrared cameras linked to a thermal imaging system and have been proposed as a non-invasive, speedy, and fairly accurate method of the mass blind screening of potential Covid infected persons. However, these infrared cameras and thermal imaging systems do not actually measure temperature. Instead, they measure the radiated energy from a surface. The radiant energy is then converted into an electronic signal that produces a thermal image with temperature calculations. The accuracy of the infrared system can be affected by human, environmental, and equipment variables. It is also limited by the fact that the thermal image is measuring the skin temperature and not the actual core body temperature. The body determines a temperature as its so-called "set point" at any one time during the regulation of core body temperature. Fever happens if the hypothalamus detects pyrogens, and then raises this set point. The time course of a typical fever can be divided into three distinct stages. When the fever initiates, the body attempts to raise its temperature, but vasoconstriction occurs to prevent heat loss through the skin. For this reason, some individuals at this stage of fever (at the rising slope and immediately after fever begins), or else at a later stage with the falling slope (after the fever breaks), will not have a fever detected by the thermal scanner if it is unable to detect subjects at the plateau of their fever. This means there could easily be false negatives. These systems (currently being trialled at airports and within industry) are also likely to be prohibitively expensive for schools, and may also provide a false sense of security.

Non-contact thermometers and handheld skin temperature measuring infrared cameras are also being marketed to the public and to schools, but these also measure skin and not core temperature so the same cautions would apply.

Testing:

Q: When they test for CV-19 how soon after being infected does a positive test show?

Current NHS and PHE advice are that antigen testing should be carried out in the first 5 days of developing symptoms to enable a positive test to show

Q: Is there any window period where one might be infected but not show up on the test?
Q: Will pupils/families be given access to testing with minor symptoms?

https://www.nhs.uk/conditions/coronavirus-covid-19/testing-for-coronavirus/ask-for-a-test-to-check-if-you-have-coronavirus/

This website also gives advice on access to tests for those with symptoms (and which symptoms) and for family members. Infected individuals are likely to have been asymptomatically shedding the virus for several days before developing symptoms.

Q: When will the contact tracing app be available nationally?

From Mid-June the national 'Test, Track and Trace' system should be in operation where positive results will have active contact tracing. The NHS App is likely to play a part in this, does your school allow pupils to carry their phones in school? How effective is contact tracing without this?

Q: How many false negatives are there?

Current antigen testing involves nasal and throat swabs, and whilst highly specific the sensitivity is probably in the order of 70% so there are lots of false negative results.

PPE

The use of PPE in the healthcare setting in schools should ideally mirror the guidance that has been established for Care Homes and GP surgeries. The symptoms of Covid-19 in adolescents and children are many and varied, and it will not be possible to be sure that they will present in the typical way with a fever and a cough. For this reason, the government has recommended the use of PPE for every contact with patients who are unwell. It is imperative that Healthcare staff should have access to the PPE that protects them for the appropriate setting and context in Independent Schools. Gloves and aprons are to be used once and then disposed of after each patient contact. A fluid repellent surgical mask and eye protection can be used for a session of work rather than a single patient contact, and this will reduce the volume of PPE that schools will need to supply. 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. For example, a session might comprise a morning surgery in a school setting. A session ends when the health worker leaves the clinical care setting or exposure environment. Once the PPE has been removed it should be disposed of safely, and schools should have access to appropriate clinical waste disposal. The duration of a single session will vary depending on the clinical activity being undertaken.

The wider use of PPE in schools must have a clearly understood purpose if it is to be utilised. Using a facial covering is likely to reduce the risk of you spreading the infection to other people if you are shedding the virus, but is unlikely to prevent you becoming infected. It is extremely easy to accidentally contaminate yourself when taking a mask off, and the use of masks risks taking away from the cornerstones of reduced disease transmission which are handwashing and social distancing. High quality masks are difficult to get hold of and are expensive. There is an ethical issue whereby mandating their use will take large numbers of masks out of the healthcare pool, potentially depriving front line hospitals and community medical staff of access to these supplies. It is the view of MOSA that schools should carefully consider the limited clinical value in the use of facial coverings, and would suggest their use is not made mandatory. If they are to be used this link describes a suitable covering:

https://www.gov.uk/government/publications/how-to-wear-and-make-a-cloth-face-covering/how-to-wear-and-make-a-cloth-face-covering