Seeing Patients Again in Covid-19

This document has been put together by the Kent LDC Chair Tim Hogan, with help from the Kent LDC Secretary Julian Unter, to provide information to dentists who are preparing to reopen their practices to see patients. We are grateful to Robert Banks, Vikas Patel and Uj Patel from Kent for their input and also Emmanuel Lazanakis from West Sussex and Claudia Peace from Hampshire.

There have been a number of publications and guidance documents from NHS England and Improvement (NHSE/I) South East and from the OCDO. All these have been posted on the Kent LDC website - www.kldc.org.uk. It is clear that the website has been a very useful source of information for practitioners as it has been averaging 75 hits a day over the last couple of months.

The purpose of this document is to give more detailed information on some of the more immediate logistical problems dentists are faced with, covering PPE such as face masks and fit testing. It is a working document and is up to date as published. We intend to add to this document as the situation at the coal face develops so if you find it useful keep a check on updates on the Kent LDC website – www.kldc.org.uk . There are 3 opinion pieces included giving first hand experiences of:

1. Operating with a hood by Claudia Peace (Page 5);
2. Running an urgent care hub by Emmanuel Lazanakis (page 7), and;
3. Fit testing and mask wear ability by Vikas Patel (page 10).

Please note that any PPE equipment is currently VAT Zero rated until the end of July: https://www.gov.uk/government/publications/vat-zero-rating-for-personal-protective-equipment/vat-zero-rating-for-personal-protective-equipment

Tim Hogan – Chair of Kent LDC

19th June 2020

Respiratory Protective Equipment (RPE)

RPE is regulated by the Health and Safety Executive (HSE) and has been in use for many years in industry to protect against hazards in the workplace, namely fine particles and toxic gaseous agents. There are specific regulations relating to biological agents in the HSE publication HSG53, which is available to download as a pdf file from the HSE website www.hse.gov.uk

Biological agents such as viruses are treated as particles, and the highest possible RPE filtration should be used as protection with an assigned protection factor (APF) of 20. This equates to a P3 filter material used in FFP3 level disposable face masks and P3 filters for reusable respirators (e.g. the JP3 full and half face masks). It may well prove cost effective for practices to consider JP3 half face masks as the cost is £20.40 and the filters are about £8 – www.jspsafety.com/link/en/respiratory-protection/force-8-half-masks-and-filters/force-8-with-presstocheck-filters/a/?parm=NOM041%20%20%20%20%20aebbai&cat=JSP
The filters can last up to a month and the mask can be disinfected between patients.

Standards have now been recently relaxed during the Covid 19 pandemic and both the NHS and more recently the HSE have advised that FFP2 or P2 filters may be used when the standard P3s are not available. FFP2 has a protection factor of 10 whereas FFP3 has a protection factor of 20. If FFP2s are to be used for aerosol generating procedures (AGPs) then under the HSE regulations they must be fit tested. The supply of FFP2s is now becoming more reliable and it is likely that practices will be able to consistently source the same type of mask. This reduces the need to keep fit testing different types of mask which is often the case with the FFP3s as supplies of these are variable.

Please note – extract from OCDO SOP - Transition to Recovery: *Valved respirators* are not fully fluid-resistant unless they are also 'shrouded'.

The easiest way to shroud a mask is to fit a type IIR fluid resistant over the top of it. This only applies if the valved mask is not fluid resistant. Wearing a visor/face shield over the top negates the need for "shrouding". It is worth adding at this point that valved masks have a couple of advantages over non-valved masks for the operators. Firstly, they tend not to fog up the visors and goggles. Secondly, you are not rebreathing the same air. The consequence of rebreathing has shown by looking at the SpO_2 level from pulse oximeters that some operators end up with a lower blood oxygen tension producing light headedness. This may mean that operators can only treat patient with these masks for a limited time period before needing a break for normal breathing without a mask on.

The JSP Safety.com website is a good source of RPEs and related products and has a Covid 19 tab dedicated to NHS resource products:
www.jspsafety.com/easyorder/infopr3?parm=867385391333702189044O&ss=1&srchTrms=1&catSrchTrms=NHSRESOURCE&st=1

NHS PPE Central Stocks have been sold on to:

Wholesalers who have received PPE from central stocks
Henry Schein - 0800 023 2558 sales@henryschein.co.uk
DD Group - 0800 585 586
Wright Health Group - 01382 834 557 nhsorders@wright-cottrell.co.uk
Trycare Ltd - 01274 885544 Mark.Hackin@trycare.co.uk

Standard Operating Procedure -Transition to Recovery (OCDO)

All PPE worn for patients that are shielding* must be single use. * Shielded patients are classed as the "clinically extremely vulnerable from COVID-19" group and an up to date list of this group is available at: https://www.gov.uk/government/publications/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19/guidance-on-shielding-and-protecting-extremely-vulnerable-persons-from-covid-19

Fluid resistant (type IIR) surgical mask and eye protection can be used for a session** of work rather than a single patient or resident contact.

** The normal definition of a session is "any continual period of clinical activity".

FFP3/FFP2/N95 respirators have a large capacity for the filtration and retention of airborne contaminants. Sessional use can be used in dental practice. A full-face visor changed between patients will protect the respirator from droplet/splatter contamination.

Although good practice, there is no evidence to show that discarding disposable respirators, facemasks or eye protection in-between each patient reduces the risk of infection transmission to the health worker or the patient.

The rationale for recommending sessional use in certain circumstances is to reduce risk of inadvertent indirect transmission, as well as to facilitate delivery of efficient clinical care.

Fit Testing

Any mask that is worn for AGPs must be fit tested. AGPs in dentistry include the use of the high-speed turbine, other handpieces with internal chip air / water spray capability, air from the 3 in 1 syringes and ultrasonic scalers etc.. Chest compressions and defibrillation (as part of resuscitation) are not considered AGPs; first responders (in 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.

If an FFP2 mask is used in lieu of a type IIR (fluid resistant surgical mask) then it does not need to be fit tested as in this situation the FFP2 is just being used as a splash barrier and not for its true function as a particle respirator.

Fit testing measures the mask fit to an individual's facial anatomy. There are two types of fit testing methods: quantitative particle counting and qualitative fit testing.

Quantitative particle counting: Machines capable of measuring particulates in the air e.g. the Portacount machine www.keison.co.uk/tsi_portacount_8040.shtml is relatively expensive and requires the test mask to be punctured by a probe. This then measures the particulate content within the mask against the introduced particulate content outside the mask. By puncturing the mask in this way, the mask cannot then be re-used. However, this form of testing is very accurate and takes away the subjectivity of an individual wearer's ability to taste and smell.

Qualitative fit testing: The qualitative fit test is the more common method we are likely to encounter in healthcare. This involves firstly a taste sensitivity test to an aerosolised chemical agent (Bitrex or Saccharin) sprayed into a hood worn by the test subject. After this a mask is fitted to the wearer and checked for leaks. The aerosolised chemical agent of a greater concentration is then again sprayed into the hood worn by the test subject whilst also wearing the mask being tested. At this time if the fit of the mask is correct the wearer should not be able to taste or smell the aerosolised chemical agent. This ensures the efficacy of the fit of that particular mask to the wearer's face. The saccharin solution has a shelf like of only a few days and so is not going to be of much value in dental practices. This normally takes about 30-40 minutes.

As a fit test is specific to the wearer and the make model and size of respirator mask, if a different mask type is used later, then that would also require a fit test. If an individual is not able to reliably respond to a qualitative fit test than a quantitative fit test could be considered. Although quantitative machines are held by trusts, at present there is no agreement for general practitioners to be able to benefit from them.

It is recommended that because of the need for repeated fit testing all practices invest in training at least one member to be able to fit test and also either invest in the equipment or buddy with other practices to share it.

Qualitative fit testing Equipment.

The Safety Supply Company www.thesafetysupplycompany.co.uk is a good source of PPE products and equipment. The JSP qualitative Face Fit Testing Kit (www.thesafetysupplycompany.co.uk/p/1209360/jsp-qualitative-face-fit-testing-kit---simple-to-use---js-bpt050-000-000.html) retails at £165 plus vat includes 2 bottles of Bitrex solution which is enough for 70 tests with a shelf life of over 18 months. This is currently out of stock but is available to order with a lead time at date of writing of 22nd June. Also available but also out of stock with no lead time is the Moldex Bitrex face testing kit www.thesafetysupplycompany.co.uk/p/6334421/moldex---bitrex-face-fit-testing-kit---new-model-with-ampoules---instruction-cd-included---mo-0103.html at £156.05 plus vat.
Spares are available at www.jspsafety.com/link/en/respiratory-protection/face-fit-testing-kit-spares/a . The Bitrex solution can be bought from eBay and amazon but the price does

vary. Bitrex can also be provided along with a certificate of conformity from Farrell-Jones Aromatic Solutions Ltd – http://www.f-jas.co.uk

Fit Testers

Extract from: NHS England and NHS Improvement South East; Covid-19: Delivery of Urgent Dental Care; GDP and Urgent Dental Care hub briefing; Issue No. 4 - 12th June 2020:

> *'With fit testing, the HSE website provides advice and training materials on fit testing respirator masks which will be relevant where clinicians are involved in conducting AGPs.* https://www.hse.gov.uk/respiratory-protective-equipment/fit-testing-basics.htm
>
> *It should also be possible to book free fit test training via an independent Respiratory Protective Equipment (RPE) fit testing company via 07947 968972 or 07947 968922 subject to capacity.*
>
> *The South East region has compiled a list of accredited fit testers. We used the national database to make these enquiries www.fit2fit.org/find-a-tester .The list (below) contains information that is correct on 12th June. NHS England and NHS Improvement South East cannot recommend or endorse any of these companies and others may be available; practices will need to make their own further enquiries subject to the needs of their workforce. Where any of these companies are used, possible for NHS England and NHS Improvement South East to pay for any costs incurred.'*

Fit testers will visit the practice (peripatetic) and it takes about 30 minutes per case and the cost for each individual is £30 - £40 depending who is doing it. There is quite a high failure rate for fit testing and a mask that passes a fit test can fail a little later on whilst wearing it. This is because of movement and sweat. Anecdotally, smells have been detected by operatives whilst wearing masks that have passed fit testing.

Fit Test training and Indemnity

It will be sensible for practices to look at fit test training. Fit testing falls under the HSE regulations and fit test training needs to be carried out by a registered certified trainer. Fit tester training should only be carried out by the higher level 'Accredited Fit2Fit' tester trainer. This should **not** be provided by a standard 'competent' fit tester provider. Details are available of the companies providing this training through the HSE. A list of accredited fit test training courses can be found on: www.fit2fit.org/fit2fit-approved-training-providers

It is recognised that there will be an increased demand on practices wishing to undergo fit test training and NHSE South East and HEE London and KSS are currently working jointly to put together suitable training packages. These should be funded by HEE. However many practices have now already undergone fit test training.

It is important to appreciate that fit testing can be carried out by anyone that is certified to be able to do so but it is not the "practice of dentistry" as you do not need to be a dentist to fit test someone. For this reason, indemnity for testing falls outside the usual scope of dental indemnifiers and dental insurance companies. As it is a HSE requirement, the cover for this would normally lie in the practice's employer's liability insurance and it is important that practice owners check with their insurance company to make sure they are covered to carry out fit testing. The cover however would normally only extend to your own work force and not to other practices. It may well be possible to share the fit testing equipment but another practice would need to train their own member of staff to carry out the fit testing.

Kent LDC is in the process of resourcing 2 fit testing kits that practices will be able to borrow. We understand NHSE SE has managed to source a further 100 kits to be made available across KSS from late June 2020.

Hoods

Hoods are also available as an alternative to masks and visors. They are ventilated with a positive pressure feed and the air is passed through various filters to purify it. These filters

can last up to a year before needing replacement. There is a small rechargeable battery pack that powers the motor that is strapped to your back and the air that passes over your face is cool. This is a real alternative to face masks and as they are positive pressure, they do **not** need to be fit tested. Hoods are suitable for anyone who either cannot wear a face mask of for those who fail fit testing for their masks because of the anatomy of their face. They are also less claustrophobic and easier to operate with in a hot environment than face masks in the absence of air conditioning.

The new **PeRSo hood** developed by Southampton University is available to buy from Baynhams: www.baynhams.com and the data sheets for the 2 models are:
http://indolighting.com/wp-content/uploads/2020/05/PERSO1_DATA-SHEET.pdf
http://indolighting.com/wp-content/uploads/2020/05/PERSO3_DATA-SHEET.pdf

YouTube video link for product: https://youtu.be/1sqVpmxTdnk
YouTube link donning & doffing: https://www.youtube.com/watch?v=B0mhkFEH668&feature=youtu.be

These will be available from mid-June 2020 though we don't have a price for them as yet. You can contact Wesley Thompson for further details on:

Wesley Thompson
INDO Lighting Ltd
Tel: +44 (0)203 0351 1687 (ext. 113)
Mobile: +44 (0)7887 428448
Fax: +44 (0)84 4586 1512
www.indolighting.com

Another example of a hood RPE is the **JSP Jetstream Switch** which is available from Sitebox Ltd (www.sitebox.ltd.uk/jsp-jetstream-powered-air-respirator-8-hour-switch-and-go-unit-dust-version-oJSP_CBB610_211_100).

The hood costs £274.99 + vat and the current lead time for a delivery is 1-2 months. Note: as this is PPE it should be zero rated for VAT until the end of July.

Opinion piece one - JSP Jetstream Switch ~ Claudia Peace of Hants and IoW LDC (who currently operates a UDC hub):

"The one which really appealed to me was the Perso hood being developed by Southampton University and being manufactured by Baynham:

www.southampton.ac.uk/publicpolicy/support-for-policymakers/policy-projects/perso.page

Baynham were very responsive to my emails but unfortunately, they couldn't give me a date on when they would be available for sale to individuals (rather than NHS Trusts who were being prioritised for delivery).

I didn't want to take the risk of my hood being delayed so I decided to go with the JSP Jetstream Switch and Go 8-hour multi plug respirator hood. It's belt mounted and rechargeable.

JSP were very helpful when I spoke to them on the phone and they assured me the hood gave me the same protection as an FFP3 mask. I ordered one – with a spare hood (so I could disinfect one between patients). JSP informed me that the filter would last for at least 12 months – but were we going to have a vaccine by then I mused so I bought a spare filter too, just in case!

The cost of the unit, a spare hood and the extra filter was £331 without VAT from Sitebox Ltd. www.sitebox.ltd.uk/jsp-jetstream-powered-air-respirator-8-hour-switch-and-go-unit-dust-version-oJSP_CBB610_211_100

It all arrived in a large plastic carrying case the very next day and after initially being concerned that the visor looked opaque, I realised it had removable film inside and out and was actually very clear. I tried it on and it needed a bit of fiddling with the interior

Velcro adjustable headband, (again due to my size), but after some simple sewing I could wear it with my loupes and wireless light.

It felt more comfortable than the FFP3 mask as your face is flooded with cool air and there is no tight fit. The filter is supplied on a Velcro waist band and weighs 765g. It's quite big and makes a whirring sound when switched on, but the noise is not intrusive and you can both hear and be heard easily.

The Big Day came today when I wore it to treat patients for the first time.

My overall impression was that it was okay and relatively comfortable. My vision was fine, but it's trickier to get on over my loupes than I first thought and I found that after a full day my loupes hurt over my ears. I also learned to push my fringe up and clip it out of the way because otherwise the internal head band squashes your hair down into your eyes. Like all respirator masks, you have to give yourself some normal air breathing every hour, but that wasn't difficult to achieve and the nylon hood is disconnected from the waist belt and left in the surgery to be cleaned with a Clinell after seeing a patient.

Whilst I may look like a Smurf (because the hood fills with air), my patients didn't seem too bothered by my appearance.

Most of my colleagues are wearing FFP3 masks, but they aren't that comfortable after a few hours either and when the sheer size of an FFP3 dwarfs your face, I think the respirator hoods are a good alternative- and at the current cost of FFP3's, they may well be more cost effective depending on how long the Covid crisis lasts.

I don't think wearing any Level 3 PPE is comfortable, but at least I do feel safe and it's good to be back treating patients once again."

Comparisons of the 2 hoods:

The differences are:

Perso:

- Choice of complete hood or just over the ears
- No outlet valve in the hood so no shrouding of the valve is necessary
- 3 speeds on the fan speed
- Harness allows support of the filter which is quite heavy, (but it looks like you don't have to wear the harness)
- Air hose detaches from the hood (easier for doffing)

Jet stream

- Hood is only over the ears
- Hood has a front valve (under the chin area)
- Only one speed on fan
- Filter is attached to a waist belt (no harness)
- Air hose is attached at filter end (as opposed to the hood end)
- The Jetstream flow is 180l/ min so the same as the Perso 1, but the Perso 3 varies from 170l/min to 200l/min and 230l/min.
- The Jetstream filter is called a PSL filter and mirrors the same particulate filtration as an FFP3 mask and is not a HEPA 13 as in the Perso 1, but the Perso 3 has a Hepa 14 filter. JSP are also now recommending change filters every 28days and no garment should impede the flow of the filter.
- The Jetstream unit is significantly lighter (765gms) and the filter is a round shape so more comfortable to wear than the Perso 1 (1.68Kg) which looks like it has lots of sharp angles and would be uncomfortable sitting against the back of your chair.
- The Perso 3 is a better shape filter than the Perso1 and although lighter (1.2kg) it isn't as light as the Jetstream.

I think the weight of the unit is an important consideration, particularly if you're small. I think I'd prefer the Jetstream over the Perso 1, but not necessarily over the Perso 3. The Perso 3 is a little more expensive, but the Perso 1 and the Jetstream are similarly priced.

Claudia Peace BDS

The following two opinion pieces are written by dentists with experience of treating patients under Covid-19 and conditions I hope they will be of some use to practitioners who are not as far down the road as yet:

Opinion piece two - Practical tips based on my experience in the UDCH – Emmanuel Lazanakis (West Sussex)

Having worked in and operated 2 UDC hubs in Sussex over the last 2½ months, I have managed to identify certain practical tips that may help general practices returning to practice. These are based on my experiences in managing the SOP and experimenting with different options for PPE.

Practice set-up

1) *Sneeze guard for reception. This is usually a Perspex clear sheet placed in front of a single section of the reception desk, to prevent patients from coming into close contact with the reception. These can be obtained from www.perspexsheet.uk/? and can be ordered to size and positioned temporarily on the reception desk. Other options that have crossed my path include https://eclipse-dental.com/dental-equipment/supplies/covid-19-rollerscreens but I have not tried these out yet. Further measures include placing tape on the floor to mark out a safe distance from reception to ensure patients do not approach reception closely. We used this product: www.amazon.co.uk/2-inch-Marking-Tape-Premium-Splicing/dp/B07HCJRN6D/ref=sr_1_1?dchild=1&keywords=B07HCJRN6D&qid=1591534068&sr=8-1*

2) *Contactless thermometers: These are used to take a temperature at the door as a further screening. These are readily available online*

3) *All excess chairs are removed from reception, and any chairs that are left are spaced 2 metres apart.*

4) *Patient toilets are preferable left out of bounds, but if used are disinfected after every use.*

5) *Surgery arrangements: Surgeries are decluttered and any files, printers and paperwork removed. Whatever is left behind should be able to be wiped and cleaned fully. In the case of our hub we used 2 surgeries interchangeable. A patient was seen in one room, and then the team moved over to the second room, while the first treatment room remained fallow. Because AGPs were done in both rooms and it couldn't be accurately predicted where AGPs would take place, both rooms were completely emptied out, and all materials and equipment was moved outside the surgery. This necessitated a runner nurse be available to provide materials and equipment required for each procedure from a location outside the surgery. There appears to be no reference to this in the "transition to Recovery" SOP, which means that the need for a runner nurse and emptying of the surgeries fully is not required.*

   If a surgery exclusively used for AGPs is not available, you might have to use your existing surgery for AGPs and non-AGPS. In terms of surgery arrangements what I think would work better is a surgery appointment arrangement as follows:

Time	*Activity*
8:30 to 10am	*Consultations and non-AGPs (30min Appt)*
10 - 11am	*AGP*
11 - 12am	*Fallow period*
12 - 1pm	*AGP*
1 - 2pm	*Fallow period*
2 - 4:30pm	*Consultations and non-AGPs*
4:30 - 5:30pm	*AGP*
5:30 - 6:30pm	*Fallow Period*

6) *Cleaning after AGPs: The product that seems to be the most recommended is Hypochlorous acid (Salvesan) which is still available. Sprays should be avoided as they could generate further aerosols on cleaning.*

   https://www.aqualution.co.uk/product-category/healthcare/disinfectants/

   A solution of this can be used to mop the floor in the surgery after AGPs. According to the latest SOP a solution of detergent/disinfectant can be used, but I need to look at this more carefully.

PPE

1) **FFP3/2:** *A huge concern for practices is the cost of PPE. I can say with certainty that the quality of FFP2 masks is questionable, and there is a high failure rate on fit-testing. 90% of FFP2 masks that underwent fit-testing at our hub did not pass. FFP3 masks are much better quality, but are very expensive. If you are to secure a supply of FFP3 masks, ensure that you get a large enough quantity of the same make and model. Each separate make and model needs to be fit-tested, and after you have passed a fit-test for a particular make and model, you can wear that make and model going forward. However, securing a large enough supply of the same type of mask is very challenging at the moment. If you can get FFP3 masks try to make sure they are valved. The valved masks do not fog up your visors or glasses, whereas the un-valved masks do.*

2) **P3 Half masks:** *The advantage of these masks over disposable FFP3 masks is as follows:*

- *They are valved and therefore do not fog up visors or glasses and can be worn with a full-face visor if a non-fluid resistant respirator is used. (OCDO SOP Note: valved respirators are not fully fluid-resistant unless they are also 'shrouded')*
- *They are re-usable. Therefore, a mask costing about £30 is re-usable. The only thing that needs to be changed is the filter, which costs about £15 per pair, and according to manufacturer's instructions need to be replaced every 4 weeks. This significantly reduces ongoing costs, considering that the cheapest disposable FFP3 mask costs £8 and lasts no more than 1 AGP.*
- *They are made of plastic and the outside can be disinfected with Hypochlorous acid or alcohol wipes.*
- *The straps are made of material and are more difficult to disinfect, but can be worn under a head cap.*
- *They can be dismantled and the parts can be washed fully with detergent.*
- *Speaking is a problem because you can't be heard. What we do is conduct the examination using Level 2 PPE, and only wear the mask when we commence the AGP*
- *They are bulky, but they can be worn with glasses and loupes quite easily. There are visors that cover the whole face that are worn perfectly with these masks.*
- *The un-valved FFP2 masks cause fogging of the visors, so it is more comfortable to wear a P3 half mask than to wear an FFP3*

Links for P3 half masks are as follows:

a) These are the Force 8 masks (you can find out all the specs from the link).

www.jspsafety.com/link/en/respiratory-protection/force-8-half-masks-and-filters/force-8-with-presstocheck-filters/force-trade-8-half-mask-with-presstocheck-trade-p3-filters/bht0a3-0l5-n00/p/?parm=CAT1JSP&prdcod=BHT0A3-0L5-N00

This is the company we bought the masks from – *http://www.safer.uk.com*

This is an alternative - *www.stealthmask.co.uk/?variant=31416863162441*

b) This company has been very good for disposable FFP3 masks. They may also have the Stealth masks, and other P3 masks which were still in stock, although they might limit the order size - http://www.thesafetysupplycompany.co.uk

Another alternative which I have seen - www.trenddirectuk.com/stealth-ml

3) Visors: The traditional visor worn on glasses does not offer the level of facial coverage as the new visors that have reached the market. At the UDC Hub we have used these visors which have been quite good. They cost only £3.50 each when bought as a box of 100. They are really good in that they cover the face extensively and can be worn over a P3 Half-mask:
www.solopress.com/coronavirus-essential-products/ce-marked-face-shields

4) Re-usable gowns: Another ongoing concern is the cost of single use fluid resistant surgical gowns for AGPs. I have 2 tips regarding this:

- *Fluid resistant gowns that are designated as single use should be disposed of after an AGP. We found that these can be placed in a pouch and autoclaved in a vacuum autoclave. They are still fluid resistant, and although very creased can be worn again. We have autoclaved gowns as many as 5 times before discarding. The cost of disposable fluid resistant gowns varies from £7 to £12.*
- *A better option is using re-usable hospital gowns. These can be washed at a high temperature using detergent. What we tried was wearing a reusable gown, then removing it after the AGP and placing it directly into an empty pillow case. At the end of the session, we then placed our scrubs into the pillow case and this was washed at 60 degrees with detergent. The cost of re-usable gowns varies from £15 to £25, but you only have to wear it 2 or 3 times to get good value for money.*

First Choice Ortho Gown - Blue - AWB Textiles Store *and*

www.thevetstore.net/shop/re-usable-surgical-gown

5) Face-fit -testing capability:

Not many people are exactly aware what face-fit-testing is. There are 2 types of tests available, a qualitative test (using bitter solution and a hood) or a quantitative test (using a Portacount machine). 99% of fit testing is carried out using the qualitative method that I will describe below.

A face fit test is largely made up of 3 components. A plastic hood, a pair of vaporisers and a pair of testing solutions. The person being tested wears the hood without a mask initially. The first solution (sensitivity solution) is inserted into the vaporiser and sprayed into the hood. This acts as a control to test how sensitive the persons "taste buds" are. After 2 or 3 sprays, most people can taste the bitter taste. If you taste it between 1-10 sprays you are super sensitive, after 10-20 sprays you are moderately sensitive and if you can only taste it between 20-30 sprays you are mildly sensitive. If you can't taste it at all after 30 sprays you have a problem, and might need to be tested using the quantitative method or a sweet solution (which is not readily sold commercially, but face-fit-testing companies do have it).

The whole process is then repeated, but with the subject wearing the P3/FFP3/FFP2 mask of choice and the tester switching to the second vaporiser and fit test solution. While the sprays are being applied every 30 seconds into the hood, the person being tested is required to undertake normal breaths, deep breaths, side to side head movements, up and down head movements, reading from a script, leaning over and then lastly normal breaths again. Each action is carried out for 1 minute, so the test lasts exactly 7 minutes. Every 30 seconds the tester is spraying into the hood and the point of the exercise is to not taste the bitter taste through the mask. If you taste the bitter taste anywhere along the line, the mask has failed to seal your mouth and the mask has failed the test. Some masks work on some individuals and not others, while some masks are just better quality than others. In my experience FFP2 masks just don't pass the fit test.

I would strongly recommend that each practice send one or two members of the team to be trained as fit testers. This is also available on-line through companies such as www.dust2noise.com/training and www.3btraining.com . By getting a member of your team trained you will acquire the ability to fit test your staff for each and every type of mask you manage to acquire at your practice instead of having to bring a new face fit tester every time.

Another obstacle is getting a face-fit-testing kit to purchase. These are very difficult to come by but I was told today that 3b training (link above) is still selling them if you do the online course with them.

You could also borrow a kit from a colleague. Some colleagues are reluctant to lend you a kit because the solution is in short supply. This company is still selling them: www.thesafetysupplycompany.co.uk/p/6334920/jsp---bitter-sensitivity-and-bitter-test-solution---55ml---two-bottle-set---js-bpt080-000-000.html and you can also get on Amazon but a little more expensive. So if you can provide your own solution there is no reason why your colleagues would hesitate to lend you their kits for a day in order for you to do the training and then fit test your whole team.

Emmanuel Lazanakis (West Sussex)

Opinion Piece three - Vikas Patel GDP from Kent:

1. *Fit-to fit-website - use the resources section for further information.*
2. *Construction type FFP3 masks will be the most cost effective solution for the NHS. They are also good as in the fit testing course I did; we had 4 men and 2 ladies who all passed the test. They are difficult to wear for prolonged periods. General consensus in the construction industry is 1 hour, however practically I don't think more than 30 minutes initially. This is not based on experience, however having worn it for the test I can see this being a sensible benchmark. I would initially advise wearing one whilst doing a short non-AGP procedure and then go from there .It would not be very sensible to try the mask for the first time during an AGP procedure. I would not advise anyone who is claustrophobic to wear a construction type masks, as it will be a further challenge.*
   This may not apply to non-construction type masks which I have no experience of wearing.
3. *There are face guidelines for selecting construction type masks, however as a rule of thumb generally small size for ladies and medium for men. Again this may vary from different manufacturers.*
4. *HSG53 is a good document for guidance free to download as a PDF. https://www.hse.gov.uk/pubns/priced/hsg53.pdf*
5. *HS53 has checklists which can be completed ….i.e. filter logs/time mask worn etc.*
6. *Reusable masks - check if compatible with disinfectant. Summer is coming so it will be very hot under these masks as we cannot have AC or fans. Exhalation vents will be cooler for the wearer, however there will be an issue if the wearer has Covid-19.*

7. *Sensible diary management will be important. It will also be prudent to consider whether your assistant can wear the mask for the duration of the procedure.*
8. *It may be useful to buddy up with an assistant who can reliably manage the planned length of the procedure and ideally have someone who can step in as a plan B if they get into difficulty i.e. a runner nurse.*
9. *Prolonged procedures may initially be most suitable for the most experienced team members.*
10. *During fit testing - wearer may not be able to taste if they have Covid-19!*
11. *Speaking is very difficult in these masks. Practices will need to consider alternate ways of giving post-op instructions and informing the patients the limitations with speech for the wearer prior to appointment.*
12. *Hooded respirators seem a good alternative for prolonged clinical procedures, however expensive.*
13. *People with acute back pain will not be able to have a qualitative test as you have to bend in the test. Must check with tester prior. Chronic back pain is ok to have a test. This may be relevant due to back pain prevalence in our profession.*
14. *'Soft' PPE masks will not fit all and the wearer will need another product if they fail the test. As a rule of thumb, you would only test the same mask twice. It may be advisable for practices to have a 'couple' of brands/types for the purposes of testing and then ordering appropriately.*
15. *Hay fever season may also hinder use for those that suffer?*

Vikas Patel (Kent)

I hope you find this guide useful. We are indebted to the colleagues that allowed us to share their opinion pieces and given their advice to help produce this document.

Tim Hogan – Chair Kent LDC June 2020©

END $^{v}_{007.3}$