

24th March 2020

Covid-19

Removable Appliance General Hygiene Protocols: Temporary Suspension of Services.

Given yesterday's National announcement for restrictions on non-essential social interactions with Coronavirus (SARS-CoV-2) pandemic, I thought it would be a good opportunity to review how this new respiratory virus disease Covid-19 impacts our health and safety, in our normal lives as well as for your child's Orthotropic treatment.

Coronavirus is a highly infectious and particularly dangerous organism, as humans have no natural immunity. Infectious carriers can be asymptomatic during the early or full term period of incubation.¹ Those infected do not develop symptoms for 1-14 (median of 5-8) days but can be "silently" infectious for 2-3 days before symptoms arise.²

When symptoms do manifest, they are; fever (83-98%) temperature >37.3C, dry cough (76-82%), difficulty breathing (19-63%) and fatigue (11-44%).³⁻⁵ Less common are typical flu and cold symptoms of sore throat (14%) and runny nose (5%), nausea/vomiting (5%) and diarrhoea (4%).⁴

Transmission is through inhalation of droplet spray from lung, mouth and nasal passages.^{5,6} Direct contact transmission through droplet contact with oral, nasal and eye mucous membranes is possible.^{5,7} Faecal (stool) and blood transmission is also probable.⁸ Although unconfirmed, aerosol transmission (inhalation of airborne suspended particles) is plausible^{9,10}

Airborne particles may hang in suspension for 3 hours. Droplets are larger particles, which fall from the air quickly within a 1.5m projection zone. It is uncertain how long infected droplets on fomite (inanimate) surfaces are active but this can be certainly viable up to 24 hours on cardboard, 48 hours on metal and 72 hours on plastic surfaces.⁹

It is known children (0-19 years account for less than 2% infected) are the least at risk group though their parents and grandparents (30-79 year olds account for 87% with median age in 50s) are the most at risk.² Everyone is susceptible. Everyone infected develops respiratory pneumonia, though not everyone suffers to the same degree.¹¹ Everyone can carry and spread this disease.^{2,11}

81% of those infected recover after only mild respiratory problems. 19% are not so fortunate and require intensive care hospitalization due to acute respiratory distress. Unfortunately 2.3% (in all age groups) are not able to survive, passing rapidly within a 14 days timeline.¹¹ Most commonly due to exacerbation from existing underlying health issues of, cardiovascular disease (10.5%), diabetes (7.3%), respiratory disease (6.3%), hypertension (6%) and cancer (5.6%).² The aged who are infected fair poorly with 8-15% unable to recover.⁵

As there is no known cure, the fight against this virus is through mitigation; where by the rate of spread is slowed to a pace that the health services can provide vital function support until natural recovery and immunity occurs. Social distancing is the method used for the reduction of disastrous exponential spread.^{12,13}

Mitigation Strategies:

- Quarantine isolation of the potentially infected and affected
- Avoidance of public gatherings, particularly in enclosed confinement¹⁴
- Maintain social distancing 1.5m⁵

- Regular cleaning of environmental surfaces (using 70% ethanol or 0.5% bleach)¹⁵
- Hand hygiene^{16,17}
- Avoidance of hand to face contact¹⁸

Although conceptually these principle practices are simple to grasp, practically they go against our nature. In particular, these directives are virtually impossible to manage when undergoing removable oral appliance therapy!

Safe practice in Orthotropics however is still possible. If the hands are cleaned thoroughly before and after it is safe to touch hand to plate to mouth. Therefore it is vital to reinforce our original protocols of only ever and always taking plates in and out of the mouth, in the bathroom setting.

Hands to be washed thoroughly with soap and water before and after the plate removal and replacement. 20 seconds is a good timeline. Note this timeline applies to the lathering of soap period.¹⁹ I recommend you personally wash the plates and the plate box daily with soapy water or dish detergent, inside and out.

Do remember, this before/after hand hygiene must also apply to normal oral hygiene tooth brushing and flossing!

In order to help younger children quickly assimilate these rules, I have created a visualization that I believe will be simple to grasp and easy to related with.

I would recommend you read my “story” passage aloud to your child:

*“Imagine a world a world without..... toilet paper.
 “Imagine in this world, all you have to wipe your butt..... are your hands.
 “Then imagine, that immediately after, you needed to take your plate out and brush your teeth.”*

Eeeeeeeewwwwwww!!!!

“Now tell me, what could you do between wiping your butt and taking your plate out that would make it safe?”

WASH!

“Right, wash, yes. With what?”

WATER?

“Water and.....?”

AND SOAP!!

“Yes soap and wter....but for how long?”

UMMM, 20 SECONDS?

“UHHH, FOR AS LONG AS IT TAKES TO GET THE POO OFF, DUH!!!”

“But let’s imagine...your brother (friend/boy in class)...thinks this is a joke.

“And DOESN’T USE SOAP!!!!

“But instead just does a quick water rinse and races out.....with wet hands.....

“What do you think he does next?”

"He FLICKS!!!"
(FLICK HANDS VIGOROUSLY)

"What do you think he is flicking?"

WATER?

"Water? Not just water.....he's flicking POO WATER!!!"

Eeeeeeeeeeeeeewwwwwwwwwwwwwwwww!!!

"And where do you think he flicks.....?"
(Whisper) " EVERYWHERE!!!"

"So tell me, what do you think is safe to touch?"

(Whisper) "Nothing. Nothing is safe to touch."

NOTHING!

"Now, you think this is the gross bit? You KNOW what, he wants to play right?"
"Poo Wars."

WHAT?????

"That's right, jump out and surprise you, flick that POO WATER RIGHT IN YOUR FACE!!!!!!"

WHAT?????

"You know he is going to. You know it right?!"
"So tell me, what's safest, walking around mouth open....or closed?"

CLOSED, CLOSED, CLOSED!!!!!!

"Yep, ZIP IT."

"ZIP, ZIP IT.
"DON'T TOUCH IT.
"WASH IT."

"Don't be afraid of Coronavirus....."
"BE VERY AFRAID OF POO WARS!!!"

"Ok, let's come back to the real world where there is toilet paper.
"Tell me, how water proof do you think toilet paper is?"

UMMM, IT'S NOT.

"Yep, it's not at all water proof.
"So tell me, if you don't think it's waterproof.....do you really think it stops the poo bugs passing right through to your hands?"

OH, NO GUESS NOT.

"It's not at all waterproof and it no way at all stops the poo bugs from your hands!!!

“So when you only wave your hand under the tap for a couple seconds and don’t use soap.....what are you flicking about after?”

POO WATER!!

“Yeah, poo water. We get this right, yes I think we do ☺”

“But do you want to learn the SECRET to not touching our face with our hands?”

NODS

“Here’s the secret.

“The ROYAL FAMILY secret.

“The Queen’s Hands!

(Clasp fingers of both hands and interlace together and rest on belly)

“And there’s something for walking too.

“The Prince of Wales Clasp.”

(Hands behind, holding fist, grasping wrist)

“Remember this;

“Zip it!

“Don’t touch it!

“Wash it!

“And Queen’s Hands it.”

Humour aside, this isn’t a made up story but very real portrait of the world today.

Although the dental profession is well versed with the prevention of cross infection with the droplet/blood borne transmissions of bacterial and viral natures, the unique virulence of this new virus presents unknown risk levels. General dentistry in particular, when high speed water turbine handpieces are used (teeth filling, crowning etc.), generate large amounts of aerosol which stay airborne for extended periods so very specific precautions are followed to ensure for safety and care.²⁰

Complete Dental Care’s Orthotropic appointments are short and the techniques are predominately extra oral with no use of high-speed water turbine handpieces. Families are all questioned regarding potential exposure situations and Covid-19 symptoms and advised according. That said, authorities across the world are now temporary suspending all elective dental procedures.²¹

My Orthotropic treatment falls in this category as non essential and as our offices have high turnover of patient and family flow it very difficult to adhere to the social distancing and minimal numbers in confinement rules. As such I have elected to suspend normal scheduling and follow the school holiday timetable.

As of today you will miss your child’s next scheduled appointment but keep your next appointment after, Wednesday 15th April.

These are my instructions to you regarding your child's Orthotropic appliances and guidelines during the next 3 weeks:

1. For those children who are in the expansion phase of treatment, cease all turning of the screws but continue to have them wear their appliances full time.
2. If currently your child is in day or day & night wear of the Biobloc trainer appliance, please move to retainer only wear when outside of the home environment. When at home, the Biobloc is to be worn as per the existing time intervals you are following currently.
3. If your child is in the retention phase whereby the Biobloc trainer or Retainers are night only wear, or if you are in fixed braces, there is no change to the existing instructions.
4. In the event there are the normally encountered issues (pain, loose, broken or non-fitting plates, loose brackets etc), please email me on our practice email and I will reply or contact you to discuss and provide instructions.

In all cases, please DO continue to supervise and coach your child on their DAILY POSTURAL RETRAINING exercises.

Note for Essential Services Dental Care:

Complete Dental Care is now operating to Level 2 treatment protocols. These protocols are directed by Government agencies and the Australian Dental Association, to ensure your safety and the safety of our staff, in accordance with society's efforts to minimise the spread of COVID-19 through the community.

As such Complete Dental Care's Emergency General Dentistry for pain/trauma/emergency management will run without interruption.

These are indeed testing times and life as we know it will never be as it once was. Yet I firmly believe so long as we choose resolve, discipline and patience, this too will pass and hope will prevail!

Godspeed,

A handwritten signature in blue ink, appearing to read 'S. Wong', with a large, sweeping flourish at the end.

Dr Simon Wong *BDS*(Melb) *FICCD*E *DipLSFO* *FIADFE*

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