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My personal experience Covid 19



Background

- **Family Physician at Tshwane District Hospital since 2007**
- **March 2020 – TDH and SBAH complex**
 - **but all COVID patients admitted at TDH**
- **First and second wave – limited first contact**
- **Was on duty in the peak of second wave**
- **General - Healthy, no co-morbidities, normal BMI, fit cyclist.**



Symptoms

- **Saturday 2 Jan 2021**
 - Cycled
 - Tired
- **Sunday 3 Jan 2021**
 - Tired slight headache
 - At night “hot and sweaty” due to heat.
- **Monday 4 Jan**
 - First working day of year – very busy day
 - Late afternoon – dry and sore throat
 - At night - severe sore throat, fever and a non - productive cough.

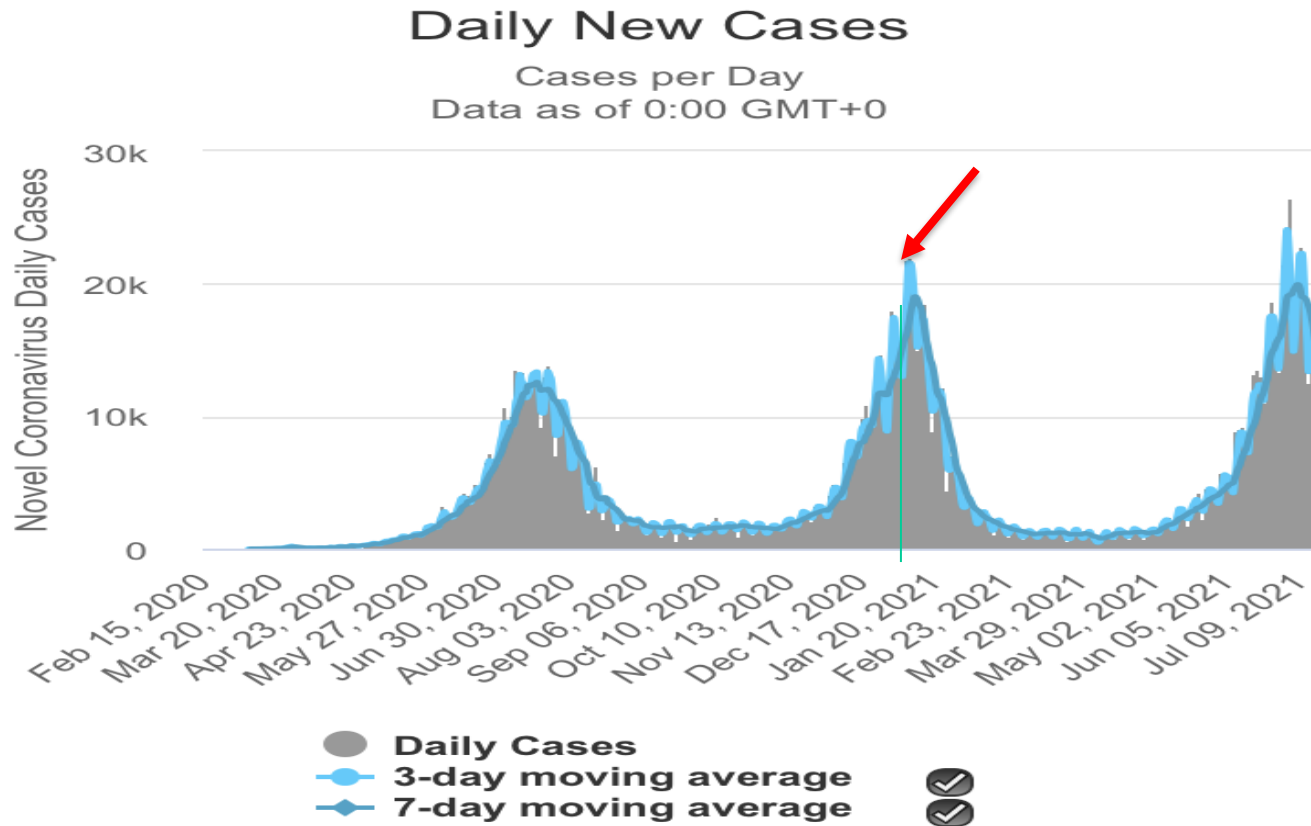


Diagnosis

- **Tuesday 5 January**
 - Nasopharyngeal swab.
- **Results took 36 hours**
 - Marked as urgent, health care worker
 - peak of the 2nd wave



Daily New Cases in South Africa



JHU Center for System Science and Engineering



Symptoms at home

- **Normal Symptoms**
 - Severe sore throat, productive cough with thick brown sputum
 - Fever and rigors, malaise and fatigue, body pains
 - No loss of taste and smell, no headache
- **Symptoms progressively got worse from day 3 – 6**
 - SOB and O₂ Sats 91 – 95 %
 - Day 6 symptoms worse, SOB worse, still fever, rigors, severe body pains
- **Day 7** – severe SOB and O₂ Sats below 90%
- Needed O₂ - went to Netcare Montana hospital in Pretoria



Treatment at home and blood tests

- Started Augmentin day 1 - ? pharyngitis
- Results came out (day 3) - standard regimen for home management of COVID-19
- - Vit C, Vit D, Zinc,
 - Azithromycin
 - Cortisone
 - Clexane
- Day 3 – routine bloods
- Day 6 repeated bloods



Pre admission blood results

	Day 3	Day 6
WBC	10.4	5.28
CRP	111 H (<5)	105 H
IL-6	74 H (<6.4)	16.3 H
D-Dimer	0.44	0.59
Ferritin	770 H	2244 H



Hospital admission

- **Contact Physician on call** – start organizing a bed
- **Admitted via EU** – O₂ Sats below 90 on room air),
 - ABG PO₂ – 28.1 on room air P/F 134(venous/mixed sample)
 - CXR
- **Day 1 – 2 of admission** –
 - General ward, nasal prong oxygen at 5 l/min – coping well
 - **Day 2** – CTPA – Classic COVID pneumonia, no PE, Severity score 15/25
- **Day 2 night** – more SOB, could not lie flat, O₂ Sats 91-92, started on non-re-breather mask at 10 l/min
- **Day 3** – bed in HC available – was admitted to HC





High Care

- **Started with NIV** - Full face mask, CVP and arterial line
- **Physician instruction** - NIPPV 24/7
 - Initially very uncomfortable –
 - “work with the ventilator” Hour after hour – “breath in – breath out “
- **Day 4** – developed a distended abdomen / ileus picture
- **Day 5** – Critical incident
 - vomited – pull of mask before aspiration – inserted NGT
 - Nil per os / started on TPN
- **Day 10** - Change full face mask to normal mask. More comfortable







High Care continue

- **Day 16**
 - - NGT removed and started oral fluids
 - 12 days NPO and on TPN
- **Day 17** – Able to start using cell phone – communication
- **Day 19** – Critical incident - my wife with social worker - inform me that my younger brother passed away – also due to COVID
- **Day 20** – transferred to a normal ward







Normal ward

- **On my own** – with Nasal Prong Oxygen / rebreather mask
- Unable to go to bathroom without O₂ - had to use a O₂ cylinder
- Continued physiotherapy – breathing exercises and mobilising
- Started walking with physio small distances with O₂ cylinder
- D/C if home oxygen is available
- Day 27 – D/C home - oxygen concentrator at 4 – 5 l/m







Day 27 – Discharge home

- Home oxygen arranged early
- Oxygen concentrator
- Oxygen cylinder as backup
- Decided I will walk out of the hospital
- No wheelchair







First 2 weeks at home

- **Week 1 - On O₂ 24 hours a day**
 - Severe weakness
 - lost 15 kg weight –mostly muscle mass
 - Unable to sit up or getting out of bed without support
 - unable to walk without support
 - to weak to shower and wash my hair – sit on chair in bath/shower
- **Week 2** - walk short distances in house but still on O₂
- **End of week 2** start with strengthening exercise
 - to strengthen my wasted muscles
 - Breathing exercise









Home rehabilitation

- **From week 3** - home visit by bio kineticist – strength exercise programme – core muscles
- I continued with my breathing exercise with help from my physiotherapist
- **Weekly visits** by my Family Medicine colleague – Dr Martin Bac
- **End of week 3** - sit without O₂ - with any exertion - had to use O₂
- **Started walking** small distances in and around house without O₂
- **Week 4 – 9** started weaning of O₂ – still slept with O₂
 - Started exercising on indoor bike trainer
 - increase walking distance













Family Medicine principles

- Home visits
- Dr Martin Bac – visited me weekly at home
- 3 weeks after discharge from hospital
 - Walked short distance in home
- First walk outside home without oxygen





Follow up test

- **Week 4 – Persistent tachycardia – 24 Holter ECG**
- **Week 9 – Full blood workup (DM), HRCT, lung function tests**
- **HRCT – interstitial infiltration, ground glass opacities, bullae L apical**
 - Organising pneumonia
- **Week 11 - Pulmonologist**
 - Full Lung function test
 - Started low dose cortisone – 8 weeks
- **Week 23 - follow up lung function test**



Lung functions (weeks post D/C)

Weeks	3	8	11	23
FVC(%Pred)	66	63	68	87
FEV 1.0 (%Pred)	77	72	75	93
FEV1/FVC (%Pred)	120	116	112	109
PEF(%Pred)	143	144	134	118
TLCO (%Norm)	-	-	66	68



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Sick leave

- **Back to work after 4 months (May)**
 - first 2 weeks half day and eventually full day
- **Struggled breathing with a normal mask**
 - Extremely difficult breathing with N95 mask
- **Now (Aug) – PPE and N95 – do ward rounds**
- **Most difficult - walking and climbing stairs – Grade 1-2 dyspnoea**
- **Walking vs Cycling**
 - Cycling much easier than walking





Cycling

- **For last 30 year - Competitive cyclist**
 - Train 5 days a week - done 27 Argus cycle tours
 - Could cycle 90km 2 weeks before admission
- **Used cycling early in my rehabilitation**
- **Indoor bike trainer - recently started cycling with an e-bike outdoors**
- **Currently**
 - Still not able to cycle with my normal bike – due to decreased exercise tolerance / decreased lung function
- **Cycling helped physical rehabilitation and muscle strengthening**
 - Also helped with my emotional well been













Post covid syndrome (>4 weeks) : Long / chronic COVID (> 6 months)

- **Pulmonary**
 - Dyspnea, reduced exercise capacity, reduced DLCO
- **Hematological**
 - Tromboembolic – PE
- **CVS**
 - Palpitations, dyspnoea, tachycardia, chest pain, arrhythmias
- **Neuro-psychiatric**
 - Malaise, fatigue, headache, cognitive impairment(brain fog)
 - Anxiety, depression(low mood), sleep disturbances



Post covid syndrome

- **Renal**
 - AKI, COVAN
- **Endocrine**
 - New DM, poor control DM, thyroiditis, bone demineralization
- **GIT**
 - Faecal shedding
- **Dermatological**
 - Hair loss, (telogen effluvium), nail changes
- **Musculo skeletal**
 - Severe muscle wasting and muscle weakness
 - Bilateral drop foot - Recovered
 - N ulnaris neuropraxia – not recovered



Critical incidents

- **Day 2/3 in HC – Abdominal distention – ileus**
 - Treatment of ileus – drip and suck naso gastric tube
 - Vomited in mask and circuit
 - Fortunately did not aspirated – catastrophic implications
- **Several attempts A-line**
- **CVP changed – curled up in neck**
- **Fluid overload – decreased eGFR – start of COVAN**
- **Muscle wasting – due to inactivity in bed, nil per os, ileus and TPN, high doses corticosteroids**
- **Weight loss – 15kg in 28 days – mostly muscle mass**



Thoughts and emotions HC

- **Why Me ? Did something wrong? Punishment?**
- **Frustrated** – want to but can't
- **Feeling alone and isolated**
 - surrounded by medical staff
 - no hospital visits allowed
 - not able to communicate with my family
- **Feeling sad when my brother passed away**
- **Feeling dependant on everybody**



Suggestions for improvement

- **Explanation to patient about the NIPPV mask**
 - Take time to properly informed and explained it to patient
- **Better communication**
 - between medical staff and the patients relatives
 - To make 1 phone call and speak to the patients relatives will make a huge difference
- **Nursing care**
 - Majority of personnel was good and compassionate about there work but for a few everything they did was an effort and a burden.



What kept me going

- Told myself this was a cycle race
 - Can not win without pain and suffering, just hang in
- Constant support and prayers from my family, friends and colleagues
- Frequent visits by the social worker, encouraged me
- Picture of a sunflower in a frame
 - Sunflower is a symbol of HOPE, HAPPINESS and RENEWAL
- Had a feeling that I can't give up now – to many things I still want to do
- Self discipline to exercise – no improvement if you don't push yourself



Summary

- 1 week at home
- 27 days in hospital (18 days in high care)
- 10 weeks on home Oxygen
- Lost 15 kg
- Post COVID symptoms
- Long COVID
- Decrease lung functions and exercise intolerance
- Future ? Full recovery – reassess in 1 year



Biggest thanks to my wife and children for supporting me in every step in this journey





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Thank You

