Welcome to the webinar:
The COVID-19 patient pathway for SLTs

COVID-19: The rehabilitation journey

5 June 2020
1pm
Welcome

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Presenters

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Clinical Specialist SLT, Airways/ENT, Imperial College Healthcare
Housekeeping

• Send in chat messages at any time by using the Chat button
• Send in questions by using the Q&A button
• This event is being recorded. See here for recordings: https://www.rcslt.org/webinars
• Please do fill in the survey that we’ll share after the event
• RCSLT staff are on hand to help!
Aims and objectives

By attending this webinar, you will gain an understanding of:

• Clinical presentations and rehab needs of COVID-19 patients
• The RCSLT / Intensive Care Society Rehabilitation Pathway
• Partnership working for rehabilitation
• How SLTs are making a positive impact
Clinical presentations of COVID-19 patients

What do we know?

Sarah
Respiratory symptoms

- Typical presentation, early criteria for viral testing
- **BUT** up to 86% of cases missed, reports of unusual symptoms are rising worldwide*

*Vetter 2020 BMJ [https://www.bmj.com/content/369/bmj.m1470](https://www.bmj.com/content/369/bmj.m1470)
Non-respiratory symptoms

- **Gastro-intestinal**: 2-40%, diarrhoea can be an initial manifestation of infection
  - Unknown whether direct infection of GI tract OR due to neurological involvement
- **Anosmia, ageusia**: > 53%, now a criteria for testing
- **Cardiovascular**: myocarditis, myocardial infarct, palpitations, heart failure
- **Hypercoagulopathy**: pulmonary embolism

*Potential need for cardiopulmonary rehab*
Neurological sequelae

35% of COVID-19 patients*

- Dizziness, headaches, brain fog
- Ischaemic or haemorrhagic stroke
- Altered mental status/ delirium
- Hypoxia
- Encephalopathy
- Myalgia, muscle wasting
- Autoimmune - Guillain-Barré Syndrome
- Psychosis

Specific populations

2% affected, milder disease, unconventional symptoms, ‘kawasaki-like’ disease, steam inhalation burn injuries

https://www.rcpch.ac.uk/resources/covid-19-research-evidence-summaries

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31103-X/fulltext

Symptoms masked: COVID-19 pneumonia causing a fall or confusion may be missed if accompanying dementia

Diagnostic delay increases mortality and transmission

Worse outcome, ‘feeding at risk’, limited rehab potential

Sarah
# Illness severity spectrum

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Probability</th>
<th>Outcome/Rehabilitation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild</strong></td>
<td>mild or no pneumonia</td>
<td>81%</td>
<td>2-3 weeks, post-viral? rehab needs</td>
</tr>
<tr>
<td><strong>Severe</strong></td>
<td>dyspnea, hypoxia or &gt;50% lung involvement within 24 to 48 hours</td>
<td>14%</td>
<td>Rapid recovery OR persistent moderate/severe deficits</td>
</tr>
<tr>
<td><strong>Critical</strong></td>
<td>respiratory failure (ARDS), multiorgan failure</td>
<td>5%</td>
<td>Months to years Community f/up, specialist voice or airway clinics complex rehab</td>
</tr>
</tbody>
</table>

**Risk factors:** gender, comorbidity, ethnicity, obesity, poverty

https://pubmed.ncbi.nlm.nih.gov/32091533/?from_single_result=32091533&expanded_search_query=32091533

**Monitor outcomes:** RCSLT data tool
• 12,086 ICU admissions for 9,347 pts
• Mean age 58 years (61yrs)
• 93% living independently pre-admission (75%)
• Longer LOS
• 57% survive (69%)

• 1,285 pts still in ICU, **4,579 discharged - needing rehab**

ICNARC report May 29th  [https://www.icnarc.org/Our-Audit/Audits/Cmp/Reports](https://www.icnarc.org/Our-Audit/Audits/Cmp/Reports)
Rehabilitation needs of COVID-19 patients
### Rehab needs post ICU

#### Respiratory
- Pulmonary fibrosis
- Reduced lung function

#### Upper airway
- Stenosis
- Tracheomalacia
- Laryngeal injury/oedema*

#### Neurological
- Weakness
- Chronic Fatigue Syndrome
- 30-80% have cognitive impairment

#### Post Intensive Care Syndrome (PICS)
- Affects 80%, depression 60%, PTSD 25%
- 32% of ARDS pts dysphagic at hosp d/c
- 50% not returned to work within 1 year

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Dysphonia
- ICU 90%
- 5-12% need f/up

Dysarthria
- ICU 75%
- 4% by d/c
- Non ICU 90%
- 25% need f/up, rest RIP, risk feed, d/c

Dysphagia
- ICU 75% - 4% by d/c
- Non ICU 90%
- 25% need f/up, rest RIP, risk feed, d/c

Cognitive communication
- 15%
- Self-report later

Aphasia
- 2%

Airway
- ICU common
- + Later onset

Delirium
- stroke
- hypoxia, PICS

Laryngeal oedema
- intubation
- tracheostomy

Breath support
- fatigue
- intubation/trachea, oral phase

Respiratory / swallow
- intubation/trachea, oral phase
- delirium, fatigue, deconditioning

Sarah
Intubation and the larynx

Laryngotracheal stenosis
Don’t be intimidated!
Focus on the basics

REVIEW
OUTCOME MEASURES
REFER BACK/ON SEEK SUPPORT

ASSESSMENT
REFERRAL CRITERIA
OUTCOME MEASURES
WATCH AND WAIT/ADVICE

THERAPY
JOINT GOAL SETTING
WORK WITH MDT
OUTCOME MEASURES

COVID-19 Resources for SLTs
RCSLT COVID-19 Guidance
RCSLT Advisors
CENs

Gemma
Work with the individual

Patient 1

Patient 2

Patient 3

Gemma
Case study (KM)

BHRUT

Alexia
Rehab pathway

ICS National Rehabilitation Forum

Gold standard rehab pathway for ALL patients

Multi-agency collaboration, SLT workstream

COVID-19 speech and language therapy rehabilitation pathway

Part of the Intensive Care Society Rehabilitation Working Party

18 May 2020

1. INTRODUCTION

Data on the functional outcomes of patients surviving an intensive care unit (ICU) admission for COVID-19 is sparse. However, anecdotal experience across a number of London ICUs indicates that a high proportion has significant physical functional impairment (more than 50% of those discharged from ICU) and the range of impairments is diverse.
Identifying needs

ICU → Ward

- Functional screening
- Professional assessments
- Treatment plan

Critical Care Team

PICUPS screening tool
- Establishing baseline deficits

Speech and Language Therapy

Psychology

Physiotherapy

Occupational Therapy

Dietetics

Nursing

Medical
- Neuro
- Renal
- Respiratory
- ENT
- Rehabilitation

Rehabilitation Prescription

Sarah
### SLT parameters of PICUPS

<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breathing and Nutrition</strong></td>
<td></td>
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<tr>
<td>Tracheostomy weaning stage</td>
<td>Cuffed tracheostomy. Cuff up all the time</td>
<td>Cuffed partially deflated or periods of cuff deflation</td>
<td>Tolerating continuous cuff deflation or cuffless tracheostomy in situ</td>
<td>Cuff deflated/cuffless tube. Tolerating one way valve continuously</td>
<td>Cuff deflated/cuffless tube. Tolerates capping trials</td>
<td>Decannulated</td>
</tr>
<tr>
<td>Dyspnoea</td>
<td>Too dyspneic to leave the house or breathless when dressing</td>
<td>Stops for breath after walking 100 yards or after a few minutes</td>
<td>Walks slower than people of the same age because of dyspnoea or has to stop for breath when walking at own pace</td>
<td>Dyspnoea when hurrying or walking up a slight hill</td>
<td>Dyspnoea only with strenuous exercise</td>
<td>No dyspnoea</td>
</tr>
<tr>
<td>Swallowing</td>
<td>Nil by mouth; difficulty managing secretions or aspirates secretions; nil by mouth</td>
<td>Commencing oral intake; tolerates small amounts of oral intake for therapeutic purposes</td>
<td>Significant dysphagia requiring more than two IDDSI diet/fluid level restrictions, fatigue limiting oral intake</td>
<td>Dysphagia requiring 1-2 IDDSI diet/fluid level restrictions, and/or consistent use of compensatory swallow strategy</td>
<td>Able to eat (near) usual diet with some difficulty or supervision required, e.g. no more than one IDDSI diet level restriction, difficulty with specific foods, longer mealtimes, coughing when drinking liquids quickly</td>
<td>Eating and drinking at premorbid level</td>
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| **Communication / Cognition / Behaviour** | | | | | | |
| Communication | No consistent functional communication | Unable to attract attention, but responds to direct questions about basic care needs using Yes/No or gestures | Able to attract attention and communicate at the level of expressing basic needs/information | Communicates within context to familiar people — but substantial listener burden | Some listener burden, but communicates with a broad range of people and out of context | Unrestricted |
| Cognition | Unconscious — in coma (Including if still fully sedated) | Awake but still disordered consciousness, or delirium | Emerged into consciousness, but severe cognitive deficit | Moderate cognitive problems. Not fully oriented | Fully orientated but some higher level problems with memory and attention and/or executive function | Normal cognition |
| Voice | No voice (aphonic) | Severe voice problem; can only produce a weak whisper, at times aphonie | Significant voice problem; voice is very rough/strained/breathy or is effortful all the time, difficulties on the telephone and in | Moderate voice problem; voice is occasionally rough/strained/breathy or effortful to produce, occasional difficulties | Mild voice problem; difficulties being heard in loud environments, sound of voice varies throughout the day | No voice problems |
### Voice disorders & upper airway

<table>
<thead>
<tr>
<th>01</th>
<th>If a patient has not had laryngoscopy</th>
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<tbody>
<tr>
<td></td>
<td>● Therapy must be part of an MDT</td>
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<td></td>
<td>● Patient must understand limitations of diagnosis</td>
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<td></td>
<td>● Referral criteria must be met - use referral checklist</td>
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<table>
<thead>
<tr>
<th>02</th>
<th>If SLT is providing therapy</th>
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<tr>
<td></td>
<td>● Telehealth - Guidance</td>
</tr>
<tr>
<td></td>
<td>● Risk assessment</td>
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<tr>
<td></td>
<td>● Regular review/outcome measurement</td>
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<tr>
<th>03</th>
<th>If SLT has concerns re-refer</th>
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<tbody>
<tr>
<td></td>
<td>● Low threshold, for example:</td>
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<tr>
<td></td>
<td>○ Airway/respiratory symptoms</td>
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<tr>
<td></td>
<td>○ Non-response to therapy/ deterioration</td>
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<td></td>
<td>○ Severity of presentation</td>
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<tr>
<td></td>
<td>● Clearly established route for referral back to MDT</td>
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**RCSLT Guidance for Voice and Upper Airway Disorders in the context of COVID-19 in adult and paediatric services**, published 5.6.2020, endorsed by ENT-UK, BLA and BAPO
Top tips for dysphonia

**DO**
- Hydrate
- Steam
- Use normal voice
- Little and often
- Rest!

**DON’T**
- Smoke/vape
- Use throat sweets
- Video chat/phone
- Put up with reflux
- Cough/throat clear

Advice for people experiencing voice problems after COVID-19 (BLA)
Webinar Videos: Assessment and treatment of laryngeal airway and voice disorders during COVID-19
Mr T
St Richards Hospital, Chichester

Alexia
Redeployment

- Risk assessment of staff to protect our vulnerable colleagues
- Workforce hubs
- 7/7 working to cover therapy need
- Junior staff involved in mouthcare rounds on critical care - one workforce
Community collaboration

- Partnership working with community Trusts to get timing of transfer
- Peer support across community and acute
- Primary and secondary care agreement; SPA
- Leniency in acceptance criteria
Community response

- Distance supervision
- Dysphagia training for Paeds SLT teams
- Condensed competency programmes
- E-learning swallow awareness packages for care homes

Alexia
Telehealth experiences

- Shorter sessions to maximise attention
- Integrated ‘end2end’ encrypted video conferencing
- Using a combination of physical objects such as books and toys and interactive resources like Symplify and Boom Cards
- Creating activities within PowerPoint that can be used interactively in sessions and for home practice
Successes
Any Questions?
Join us for the next webinar

COVID-19: Telehealth

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