

*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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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



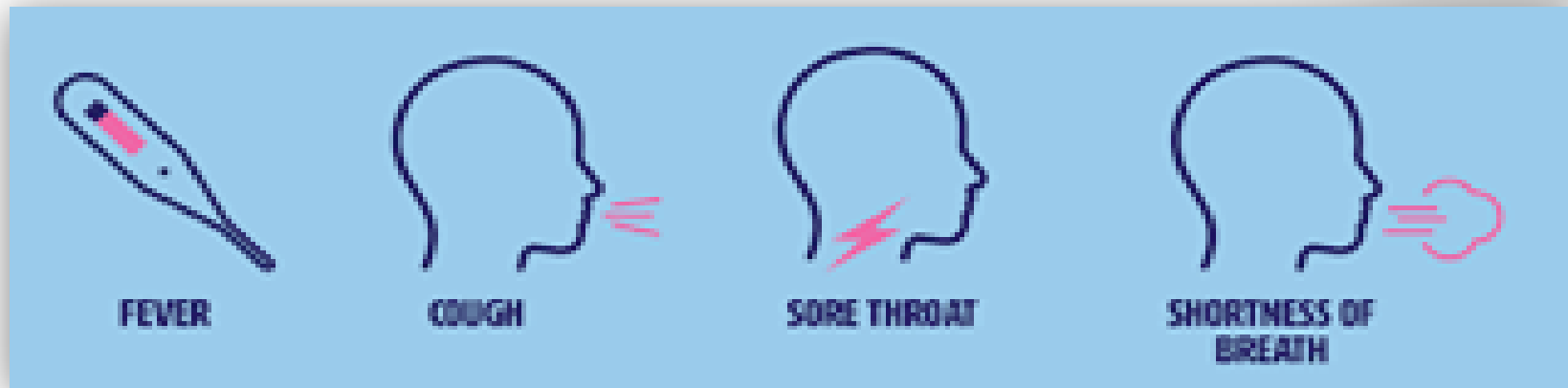
By attending this webinar, you will gain an understanding of:

- 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?

# 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>

# 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

\*Mao 2020 <https://pubmed.ncbi.nlm.nih.gov/32275288/>

# 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](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

# Illness severity spectrum

<b>Mild</b>	mild or no pneumonia	81%	2-3 weeks, post-viral ? rehab needs
<b>Severe</b>	dyspnea, hypoxia or >50% lung involvement within 24 to 48 hours	14%	Rapid recovery <b>OR</b> persistent moderate/severe deficits
<b>Critical</b>	respiratory failure (ARDS), multiorgan failure	5%	Months to years Community f/up, specialist voice or airway clinics complex rehab

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

[https://pubmed.ncbi.nlm.nih.gov/32091533/?from\\_single\\_result=32091533&expanded\\_search\\_query=32091533](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>



# 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



Respiratory / swallow  
intubation/trache, oral phase  
delirium, fatigue, deconditioning

Stroke

**Aphasia**  
2%

Proning, fatigue  
GBS, stroke

**Dysarthria**  
Up to 8%  
Resolving

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

Delirium  
stroke  
hypoxia, PICS

**Cognitive communication**  
15%  
Self-report later

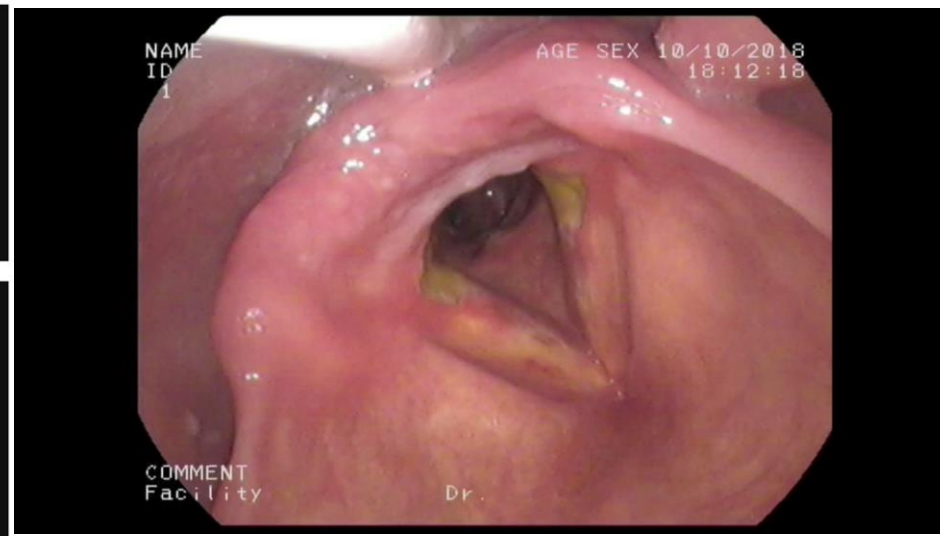
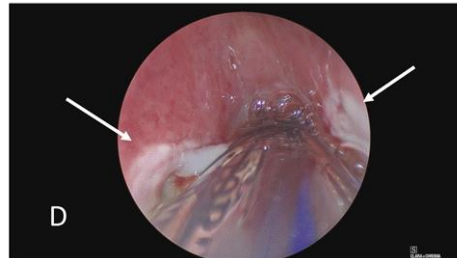
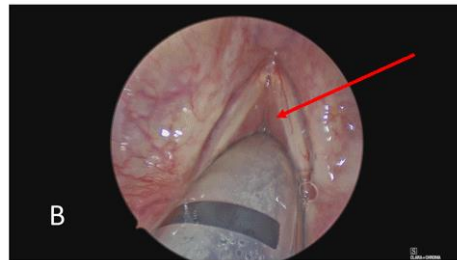
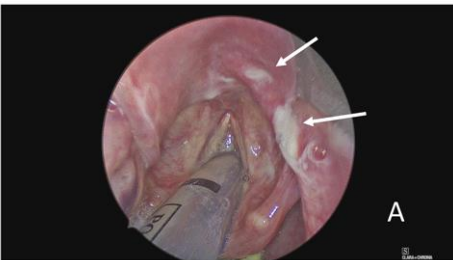
**Dysphonia**  
ICU 90%  
5-12% need f/up  
Non ICU 5%

Breath support  
fatigue  
intubation  
trauma, vc palsy

Laryngeal oedema  
intubation  
tracheostomy

**Airway**  
ICU common  
+ Later onset

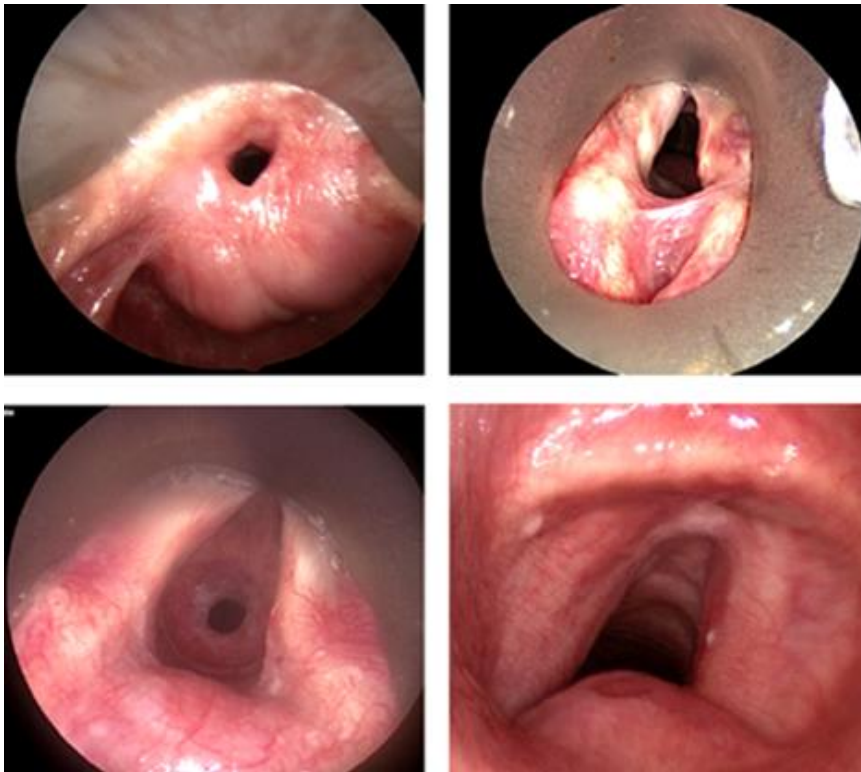
# Intubation and the larynx



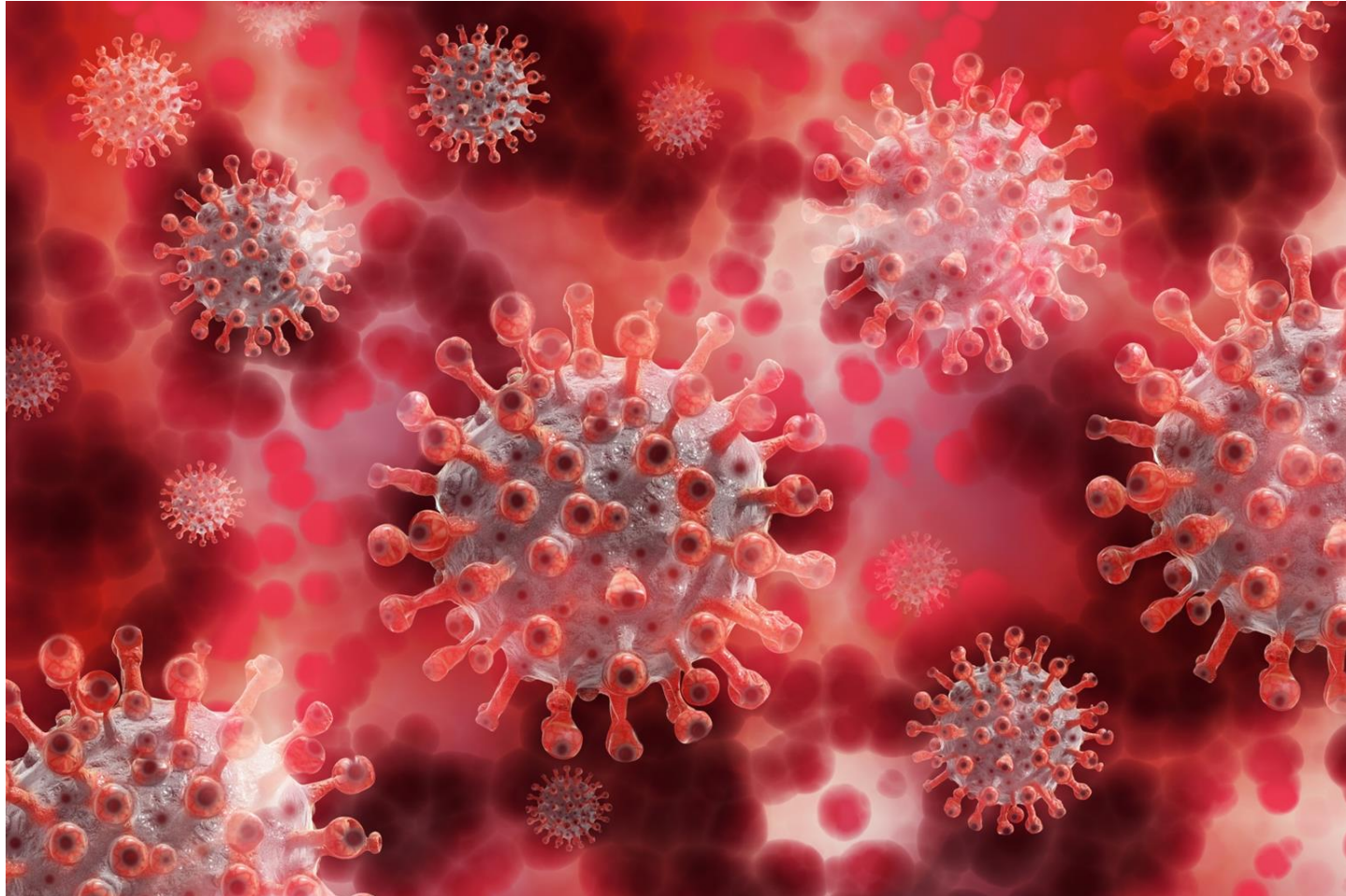
Oliver CM, Campbell M, Dulan O *et al.* Appearance and management of COVID-19 laryngo-tracheitis: two case reports [version 1; peer review: 1 approved]. *F1000Research* 2020, 9:310 (<https://doi.org/10.12688/f1000research.23204.1>)



# Laryngotracheal stenosis



# Don't be intimidated!



Gemma

# 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](#)

# Work with the individual



Patient 1



Patient 2



Patient 3



# 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*

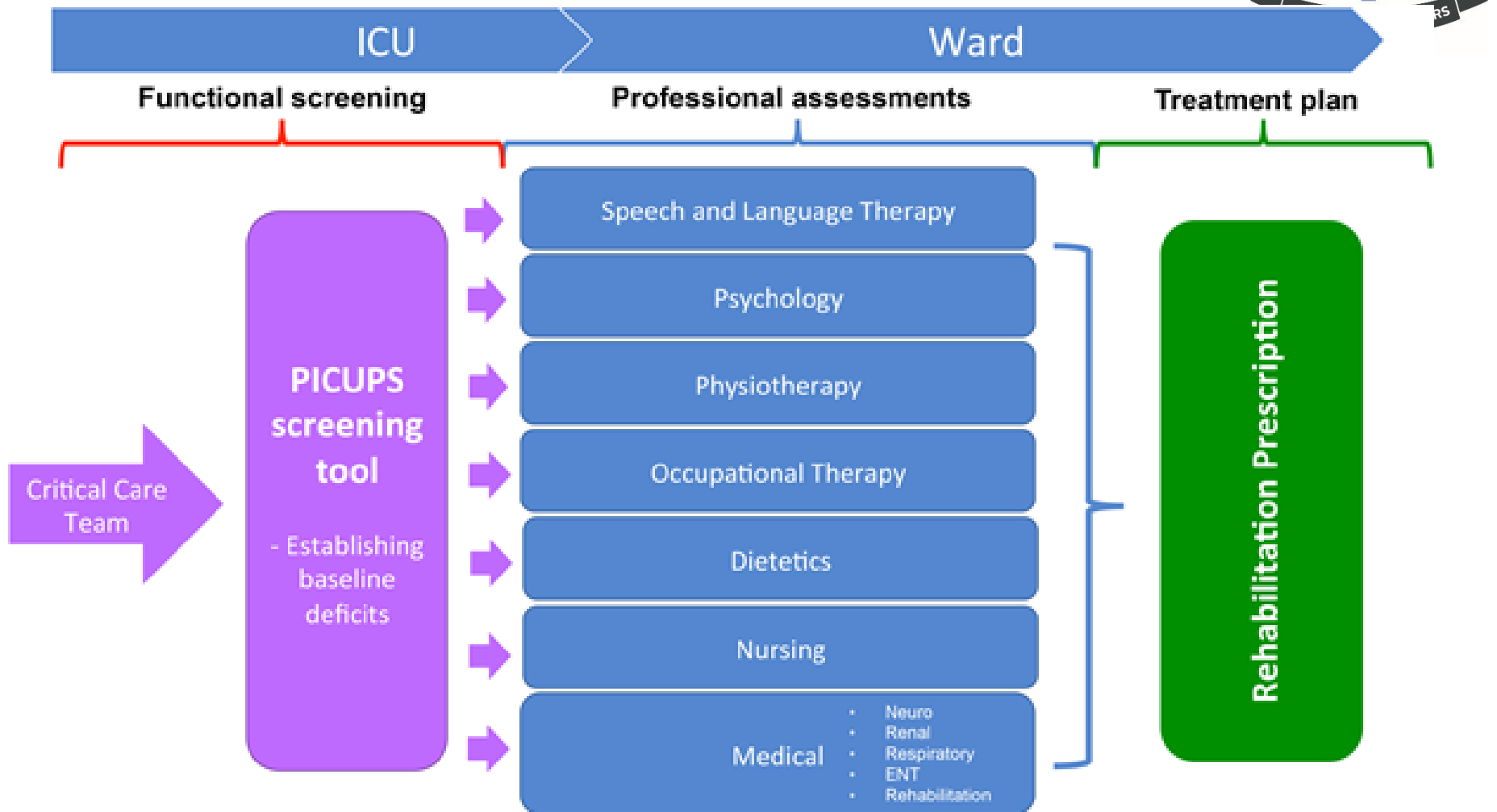
18 May 2020

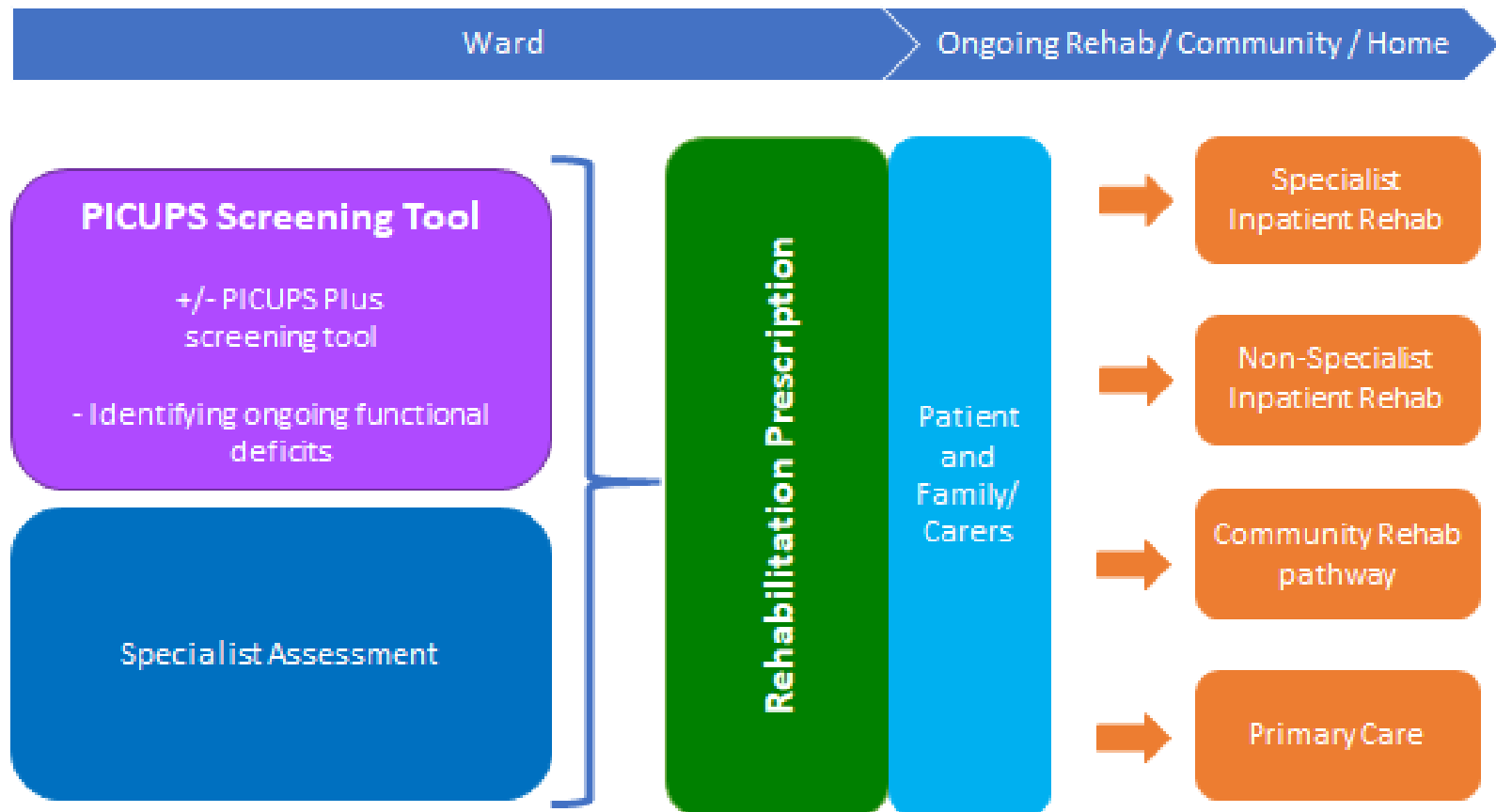
### 1. INTRODUCTION

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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







# SLT parameters of PICUPS



Item	0	1	2	3	4	5
<b>Breathing and Nutrition</b>						
<b>Tracheostomy weaning stage</b>	Cuffed tracheostomy. Cuff up all the time	Cuff partially deflated or periods of cuff deflation	Tolerating continuous cuff deflation or cuffless tracheostomy in situ	Cuff deflated/cuffless tube. Tolerating one way valve continuously	Cuff deflated/cuffless tube. Tolerates capping trials	Decannulated
<b>Dyspnoea</b>	Too dyspneic to leave the house or breathless when dressing	Stops for breath after walking 100 yards or after a few inutes	Walks slower than people of the same age because of dyspnoea or has to stop for breath when walking at own pace	Dyspnoea when hurrying or walking up a slight hill	Dyspnoea only with strenuous exercise	No dyspnoea
<b>Swallowing</b>	Nil by mouth; difficulty managing secretions or aspirates secretions; nil by mouth	Commencing oral intake; tolerates small amounts of oral intake for therapeutic purposes	Significant dysphagia requiring more than two IDDSI diet/fluid level restrictions, fatigue limiting oral intake	Dysphagia requiring 1-2 IDDSI diet/fluid level restrictions, and/or consistent use of compensatory swallow strategy	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	Eating and drinking at pre-morbid level
<b>Communication / Cognition / Behaviour</b>						
<b>Communication</b>	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 Able to understand and express complex information and to communicate with anyone
<b>Cognition</b>	Unconscious – in coma (Including if still fully sedated)	Awake but still disordered consciousness, or delerium	Emerged into consciousness, but severe cognitive deficit	Moderate cognitive problems. Not fully orientated	Fully orientated but some higher level problems with memory and attention and/or executive function	Normal cognition
<b>Voice</b>	No voice (aphonic)	Severe voice problem; can only produce a weak whisper, at times aphonic	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



01

If a patient has not had laryngoscopy

- Therapy must be part of an MDT
- Patient must understand limitations of diagnosis
- Referral criteria must be met - use referral checklist

02

If SLT is providing therapy

- [Telehealth - Guidance](#)
- Risk assessment
- Regular review/outcome measurement

03

If SLT has concerns re-  
refer

- Low threshold, for example:
  - Airway/respiratory symptoms
  - Non-response to therapy/ deterioration
  - Severity of presentation
- Clearly established route for referral back to MDT

[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

# 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?



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# COVID-19: Telehealth

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