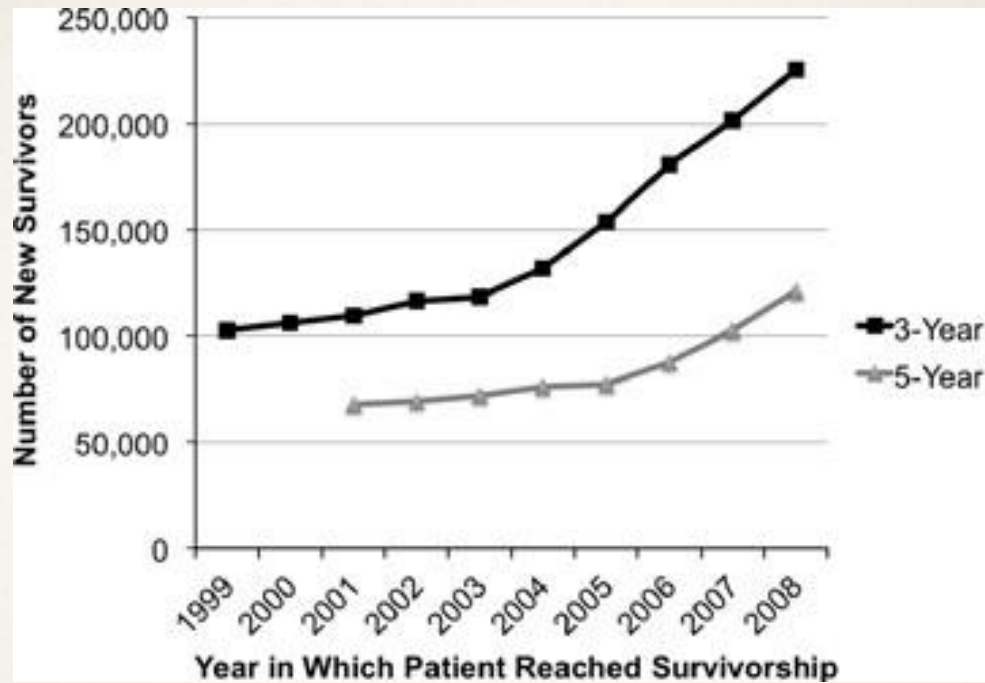


So You've Been Asked to See a Recovering COVID Patient in Clinic: What Do You Do?

Carla M. Sevin, MD, FCCM
Director, The ICU Recovery Center at Vanderbilt
Nashville, Tennessee



The Why



Survival is not the end-point for patients and families

Post-Intensive Care Syndrome (PICS)

Mental Health

Depression
Anxiety
PTSD

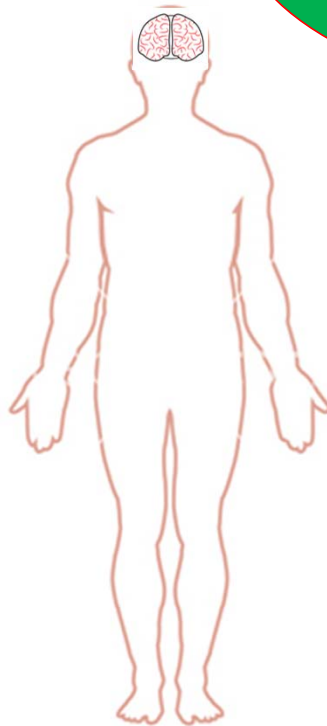
Cognitive Impairments

Executive Function
Mental Processing Speed
Visuo-spatial
Memory
Attention

Stressed Families

Depression
Anxiety
PTSD

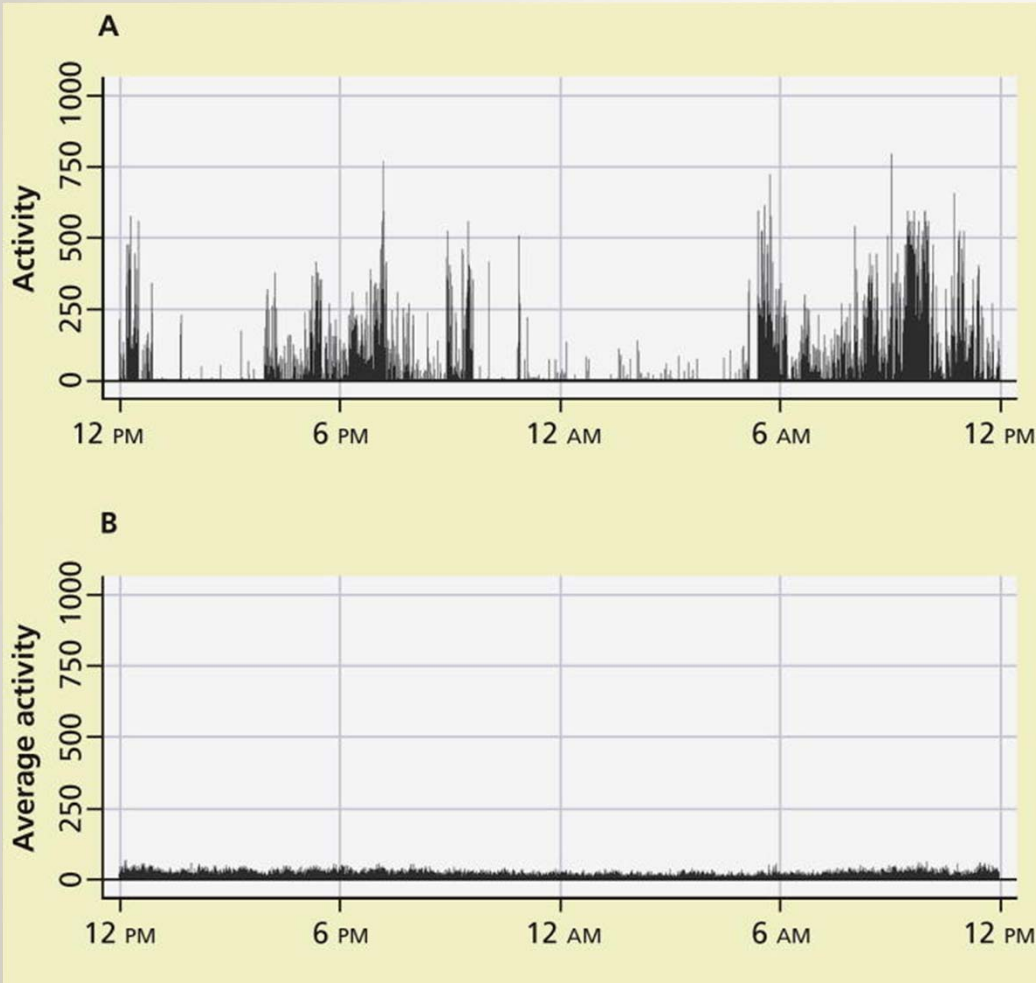
High Burden of Chronic Health Conditions



Physical Impairments

Muscle Weakness and Loss
Neuropathies
Pulmonary Function

How is recovery different in COVID-19?



Now add:

Increased sedation

Increased use of benzodiazepines

Increased time on vent

Decreased mobility

Decreased family visitation

Stretched resources and staff

Physical sequelae



6MWT



Alopecia



Onychomadesis



Shoulder Impairment



ROM

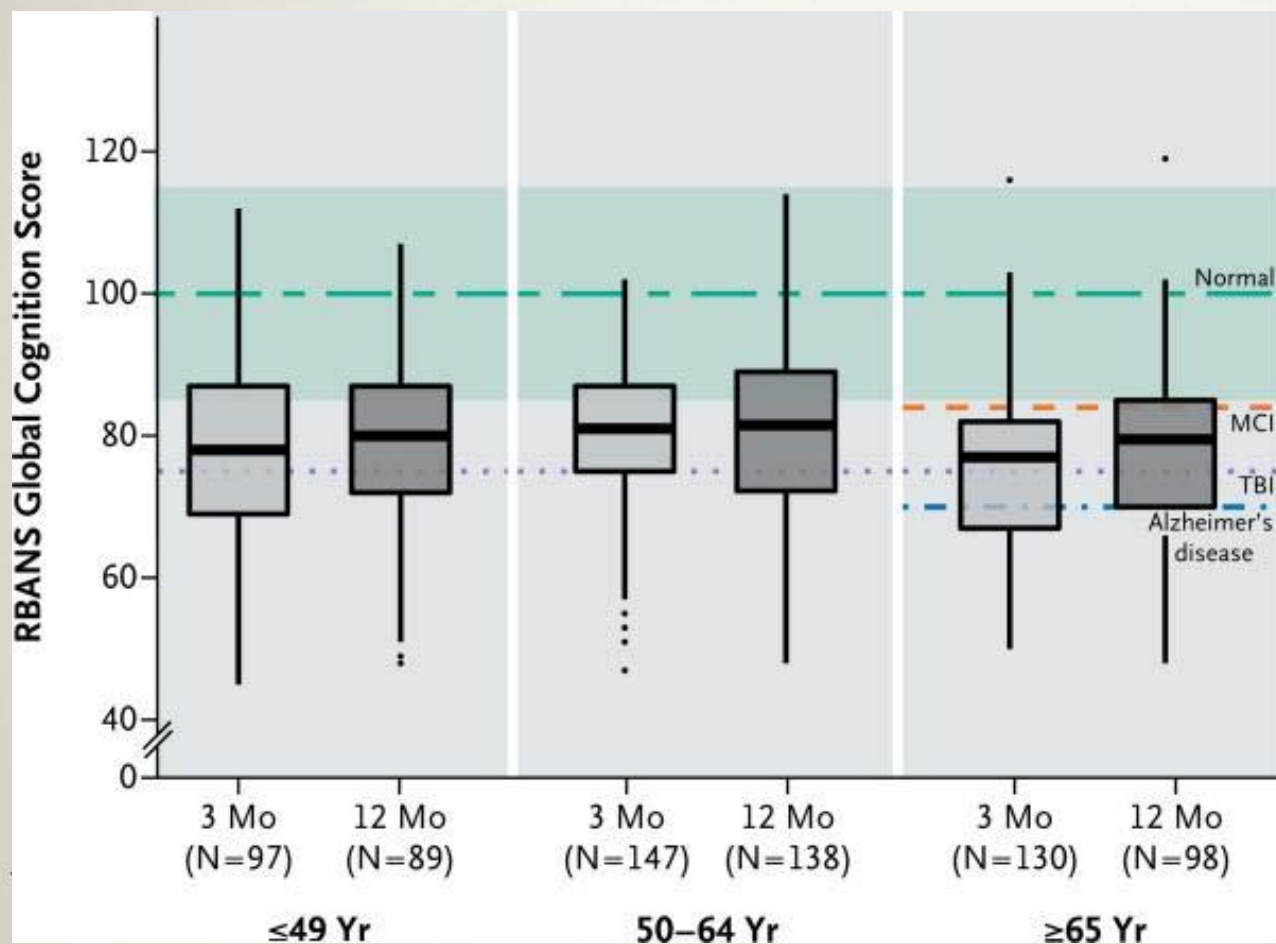


Components of Shoulder Impairment, *n* (%)

Assessment	Shoulder Impairment, <i>n</i> (%)	Pain	Decreased Range of Movement	Abnormal Constant-Murley Score (Shoulder Impairment Assessment Score)
Inpatient (<i>n</i> = 25)	19 (76)	4 (21)	19 (100)	Not assessed
3 mo (<i>n</i> = 62)	45 (73)	11 (24)	45 (100)	41 (91)
6 mo (<i>n</i> = 61)	41 (67)	21 (51)	39 (95)	37 (40)



Global Cognition Scores in Survivors

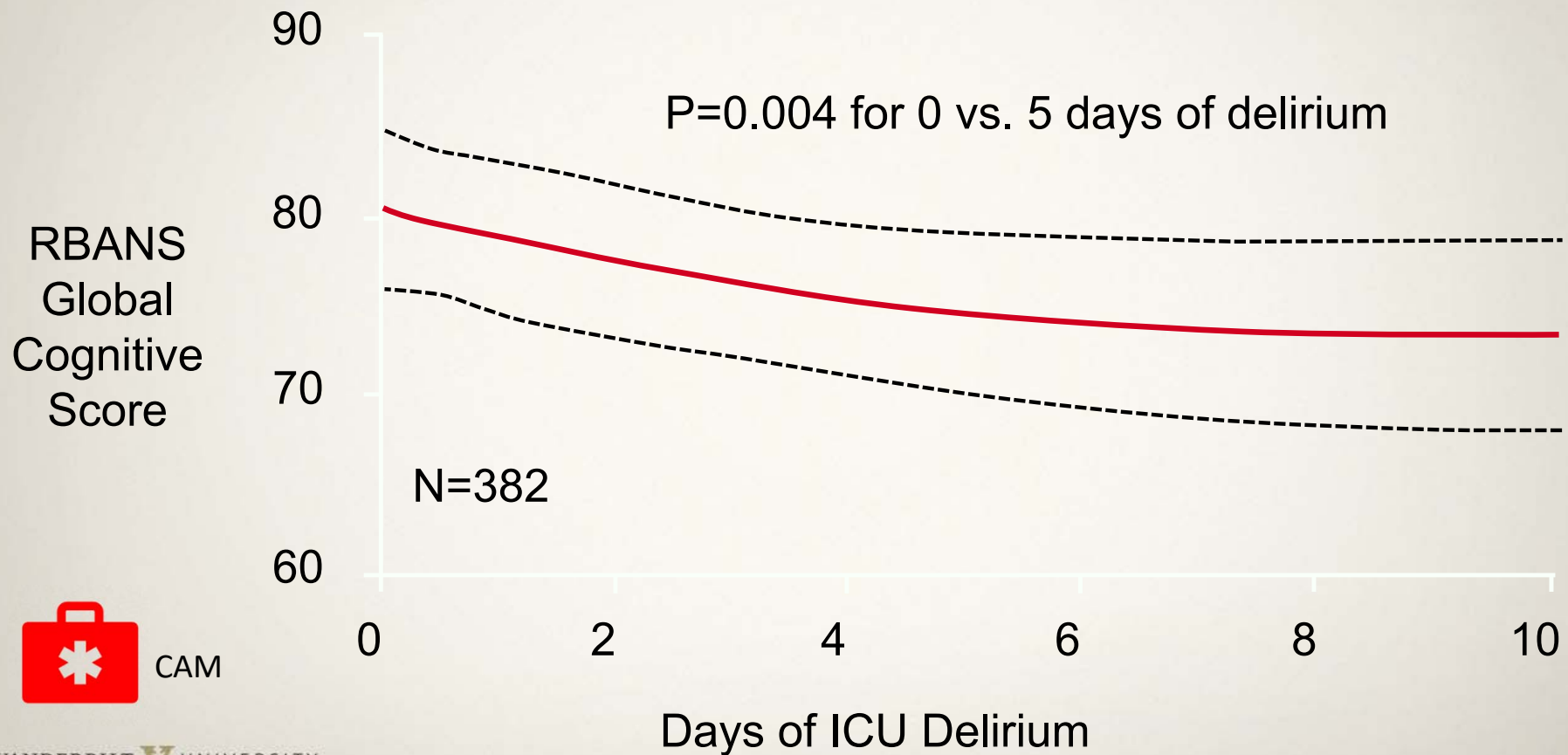


MoCA

<https://www.mocatest.org/remote-moca-testing/>

Pandharipande et al NEJM 2013

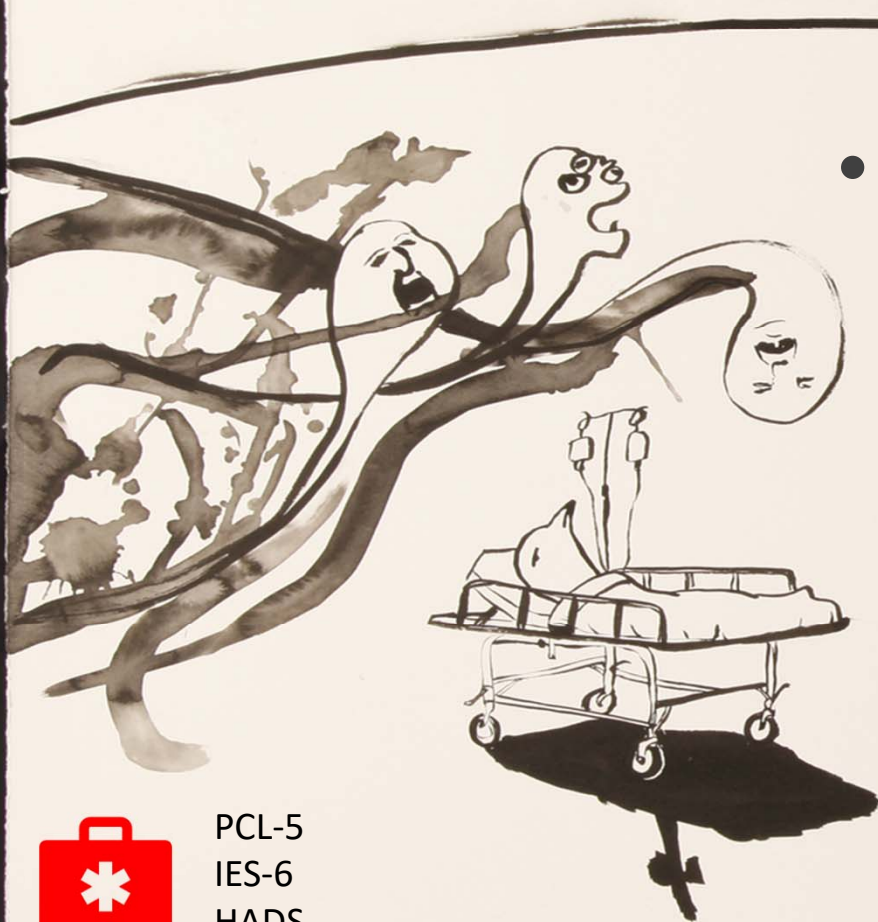
Delirium is the strongest independent predictor of cognitive impairment



CAM



PTSD after critical illness

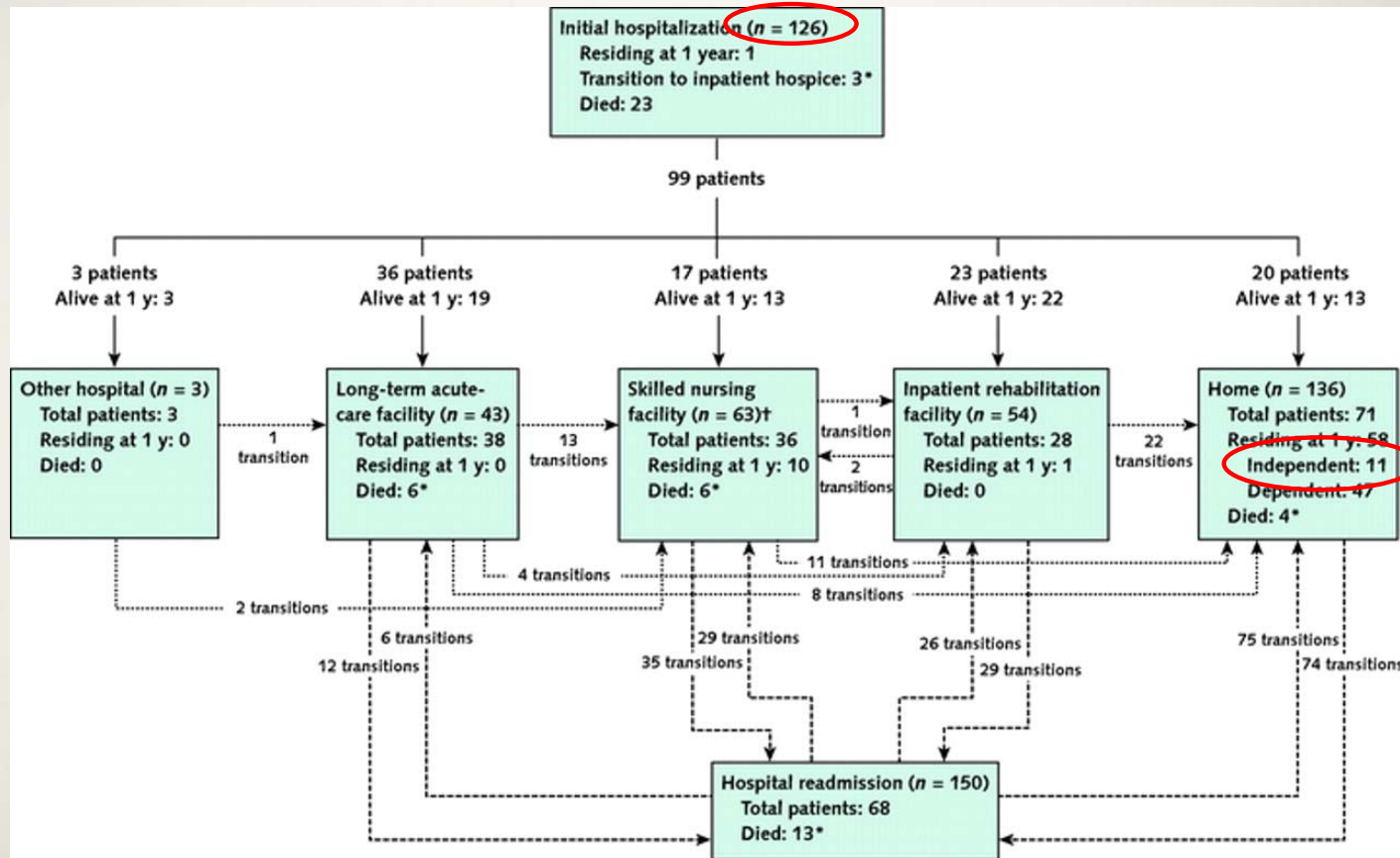
- 
- Meta-analysis:
 - PTSD symptoms in 1/5
 - More likely in those with
 - comorbid psychopathology
 - benzodiazepines
 - early memories of frightening ICU experiences



PCL-5
IES-6
HADS

Parker et al CCM 2015
Art by Nancy Andrews

One-Year Trajectories of Care and Resource Utilization for Recipients of Prolonged Mechanical Ventilation





Models of post ICU care



The Vanderbilt Model

TEAM:

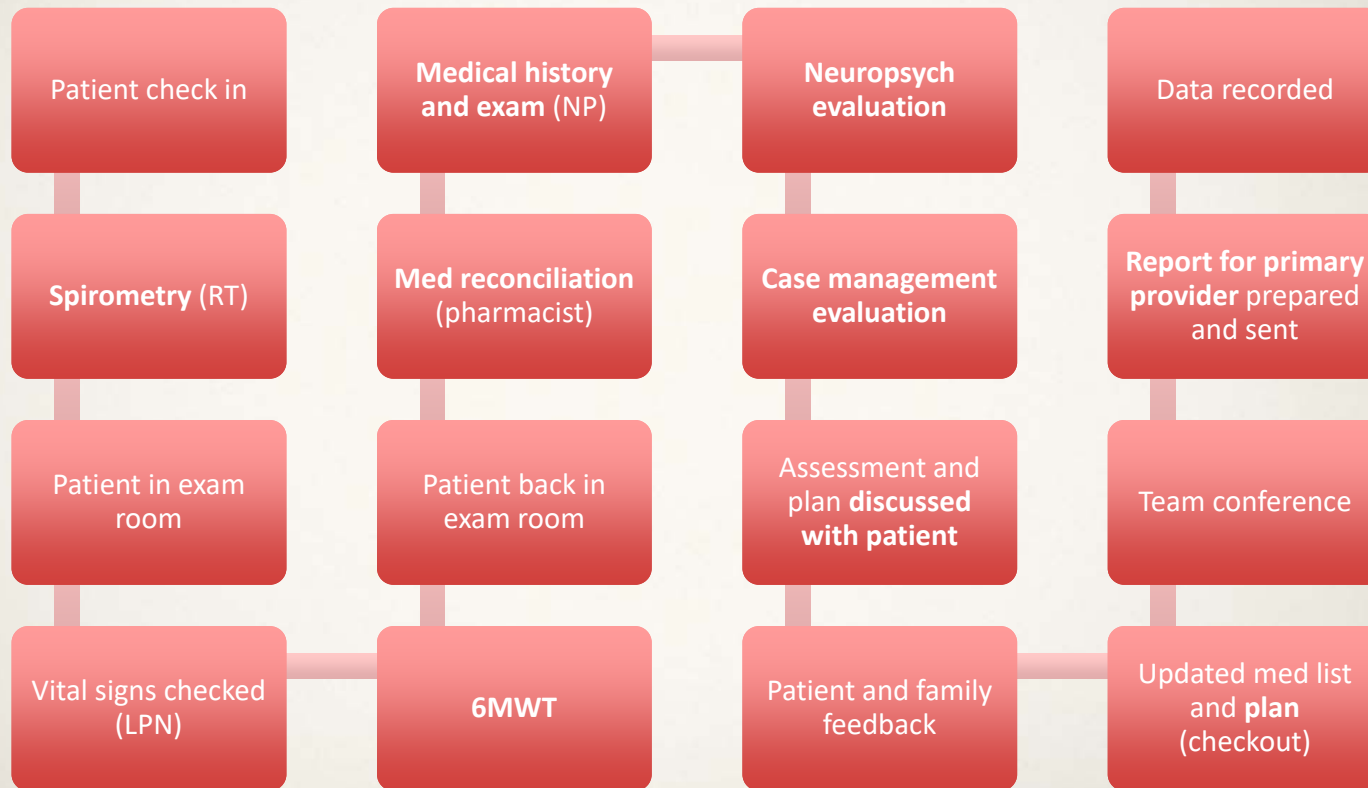
- Respiratory therapy
- Pharmacy
- Critical Care
- Psychology
- Case management

SELECTION CRITERIA:

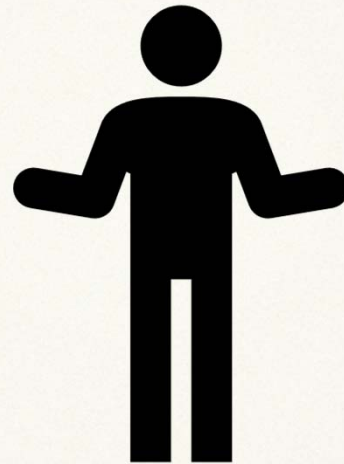
- *Mechanical ventilation*
- *Shock*
- *Delirium*



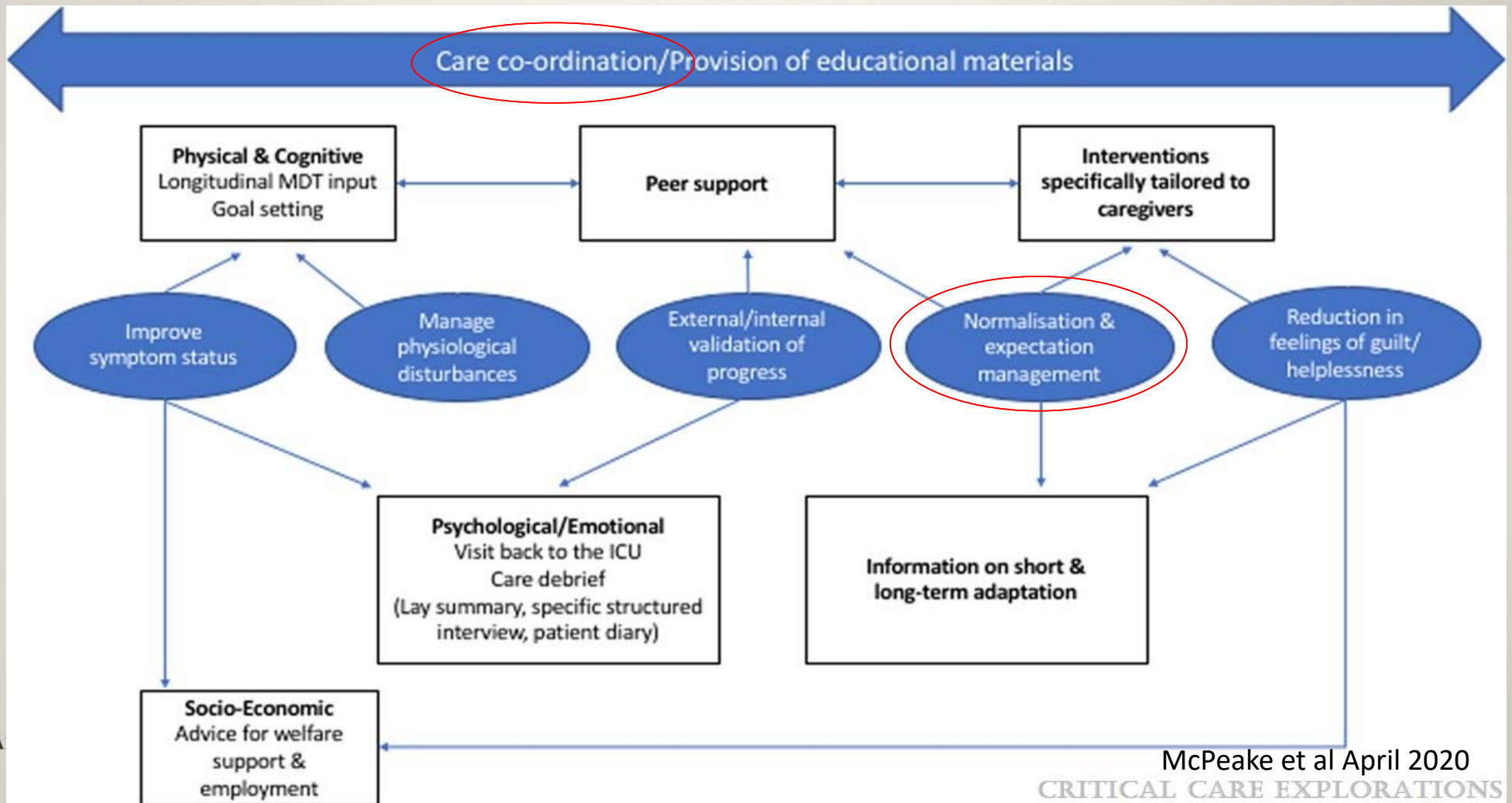
An Interdisciplinary ICU Recovery Clinic



Minimum criterion



Components of an ICU recovery program



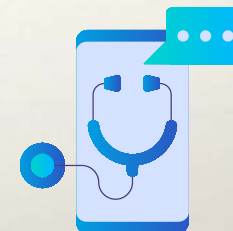
Telemedicine

Advantages

- Reach patients at critical time points
- Start up costs are low
- Can pull in multidisciplinary team members from afar
- See family, home environment
- "Screen and triage"

Disadvantages

- Limited objective data gathering, physical exam, and treatments
- Still some regulatory hurdles despite COVID



Interview tips

- **Diagnostic:** Ask very specific questions, and listen to the answers
 - Patient may not want to know the answer
 - You may not know how to deal with the answer*
- **Therapeutic:** Normalize recovery problems



*This is ok. If you don't seek you will not find.

The Dirty Dozen: 12 Points to Cover Prior to COVID Dispo



Home Meds
Restarted?



Should new ICU
meds be stopped?



What is the
anticoag plan?



Who fields q's prior
to 1st follow up?



Exercise Plan to
recondition



What follow up
is most key?



Removal Plan for
tubes/lines/filters



Written tubes/
lines recap



Teach common
readmit issues



Have PT/OT
evaluated?

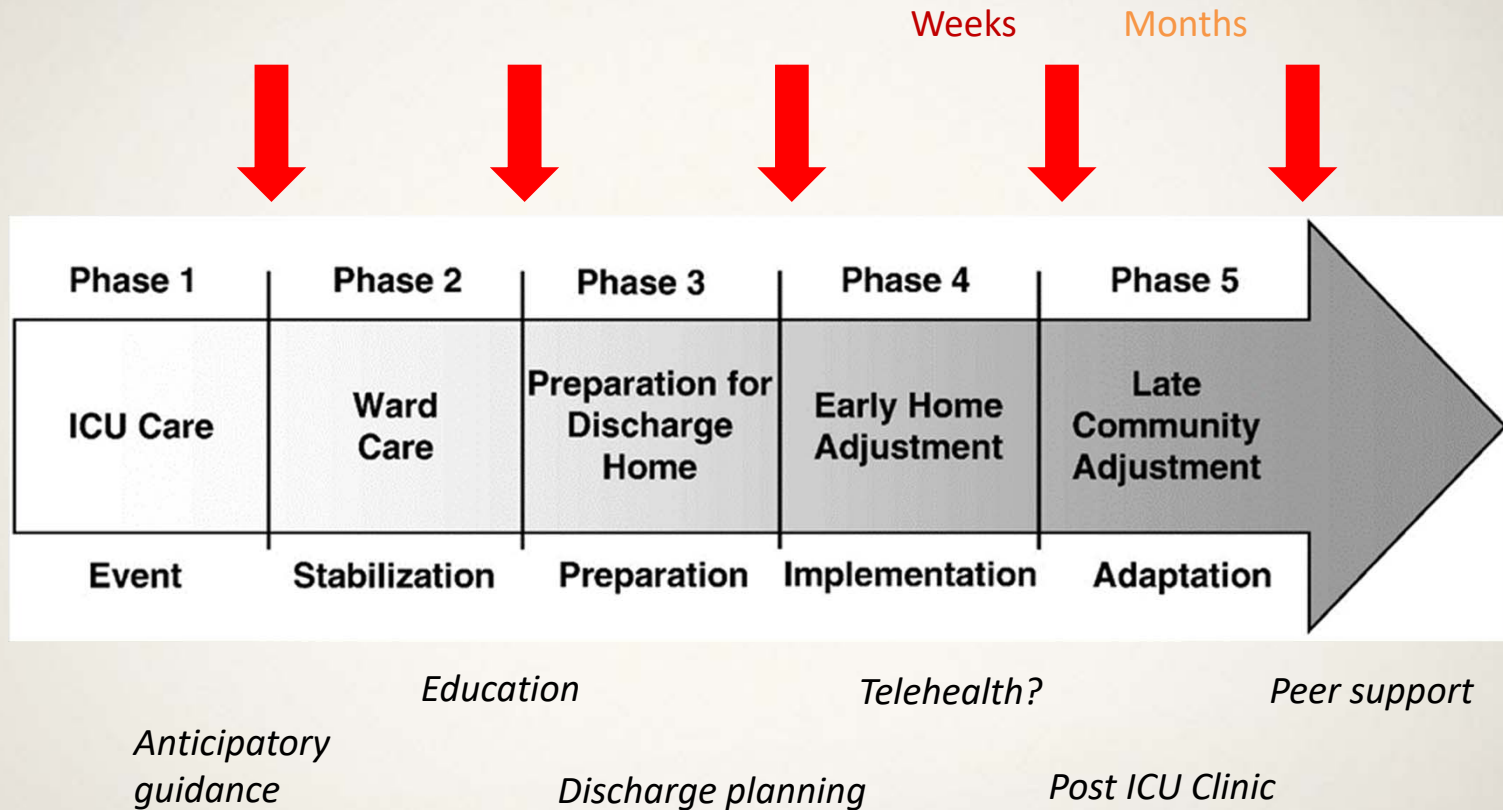


Can they pay for
what they need?

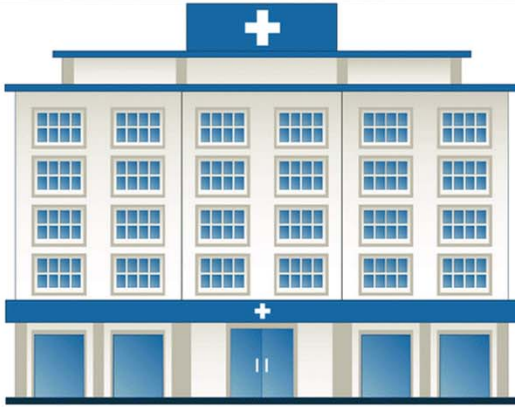


Expect post-ICU
syndrome

Serial assessments



ORGANISATIONAL



NEW TARGETS FOR
QUALITY IMPROVEMENT

CREATING NEW
SURVIVOR ROLE

INVITING COLLEAGUES
TO POST-ICU PROGRAMS

MECHANISMS DRIVING IMPROVEMENTS IN THE ICU

INTRA-CLINICIAN



UNDERSTANDING
PATIENT EXPERIENCE

IMPROVING MORALE




Haines et al ICM 2019

ICU Recovery Programs



Vanderbilt ICU Recovery



 @ICU_Recovery



ISOLATE-ICU

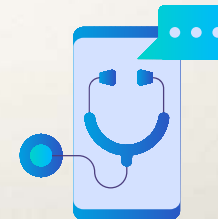
Impact of Solitude On Patients,
Loved Ones And Healthcare
Teams' Experience in the ICU

 @CAIROrg



CAIRN

Collaborative Assessment
of ICU Recovery Needs



TelePORT

AN ICU RECOVERY STUDY