National Institute for Health Research

Plymouth Hospitals NHS
NHS Trust

A retrospective case cohort Audit Project evaluating quality of life outcomes and prevalence of Post-Traumatic Stress Disorder in survivors of Intensive care at 6 months (QOL- ICU6)

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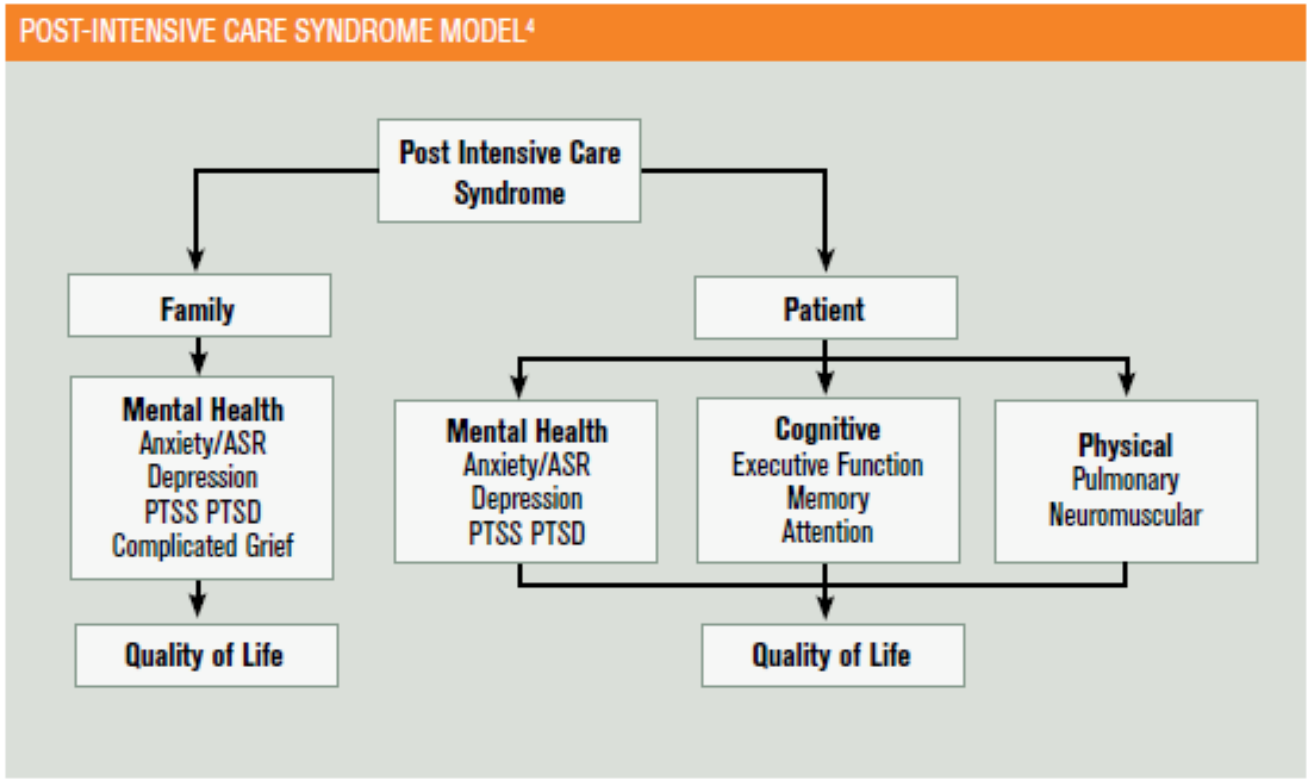
Post Intensive Care syndrome

Figure 1.



ASR = acute stress reaction; PTSS = posttraumatic stress symptoms; PTSD = posttraumatic stress disorder

What is Post Traumatic Stress Disorder?

PTSD is a disorder that develops in response to a stressful event or situation of exceptionally threatening or catastrophic nature (for example, assault, road accident, disaster, rape)

Symptoms include:

- re-experiencing symptoms (for example, flashbacks, nightmares)
- avoidance of people or situations associated with the event
- emotional numbing
- Hyper-arousal.

NICE(2005)

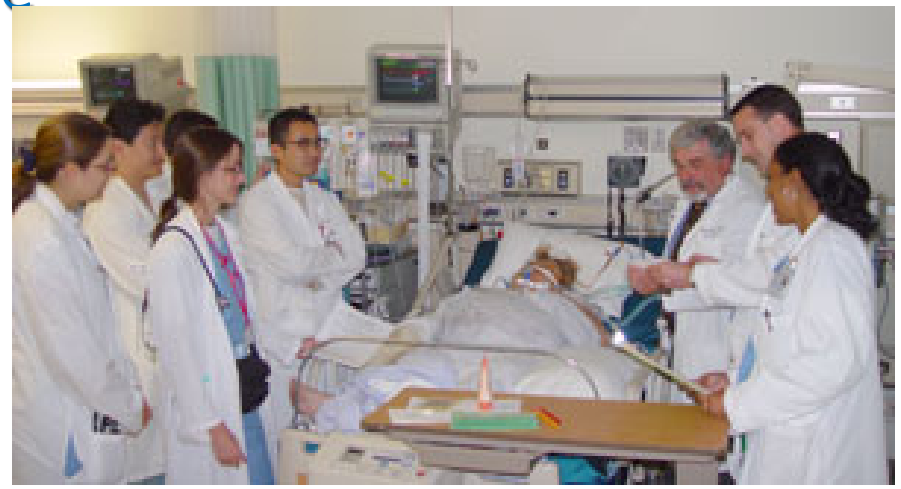
PTSD in ICU

……What the patients say

- " Endless days and nights filled with broken sleep. A sea of fragmented menacing faces and shadows swimming through erratic bleeps and bells".

Wake, S and Kitchiner, D (2013)

Patient reported “memories of intensive care”



- Homicidal nurse
- Drug dealing in the intensive care unit
- Trips to a bar every evening
- Visiting band
- Alien abduction
- “Staff all off to a hotel in Torquay to have sex”

Delirium and its links to PTSD

Individuals exposed to similar traumatic stressors often have very different reactions and, in most cases, do not go on to develop PTSD. However, some people are more susceptible than others to developing PTSD after critical illness. Individuals at greatest risk may include those who:

- Have pre-existing mental health problems
- Have a history of exposure to previous traumas of different kinds
- Are young in age
- Are female
- Experience prolonged delirium
- Have vivid memories of delusions and hallucinations during critical illness

- 5 major SR in the area and all examine PTSD differently and use different risk factor analysis.

- Parker (2015) latest and key SR into PTSD post ICU

Internal PTSD Audit

Follow up data being collected and analysed by satellite team to ICU

June 2014

PTSS 14 being used but referral trigger incorrect

July 2014

New PTSS 14 tool and Nottingham Health Profile Tool launched Dec 2014

December 2014

- All discharges screened if ICU stay > 24 hours
- Screened at 6 months post ICU discharge

PTSD

Nottingham Health Profile

Current Audit

Post Traumatic Stress syndrome 14-Questions inventory (PTSS-14)

Current Audit

MSc project

- Demographics – Age, gender
- Length of ICU stay
- Previous mental health problems
- Method and duration of Sedation
- Location of ICU stay (Side room)
- Days of Advanced Mechanical Ventilation
- Method of admission (trauma)
- Severity of illness (SOFA/APACHE 2)
- Length of stay in hospital
- Delirium
- Bed space and bed moves

The "PTSD" perfect storm

Delirium and its link to our PTSD population

- Not enough data!

- Not enough CAM-ICU data recorded (12% of population)

Looking to the future…. A scoring tool and rehabilitation service…

- **New rehabilitation Team**
- **Embedded ICU Clinical Psychologist… first in UK**
- **Rehabilitation Handbook for patients and relatives**
- **Patient Diaries for all patients for whole stay in hospital**
- **Delirium educational drive in department**
- Scoring tool to be released June 2017 linked to PTSD risk factor analysis
- ICU rehabilitation data warehouse to examine rehabilitation, recovery and psychological outcomes after discharge.

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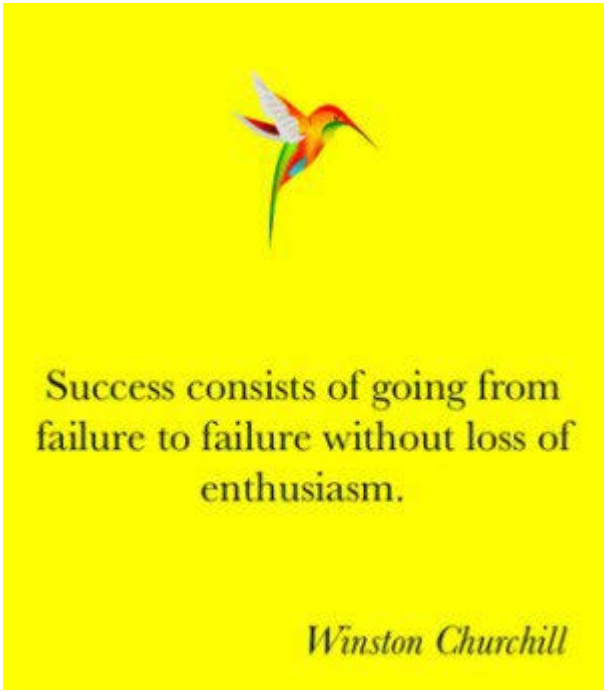

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Thanks and acknowledgements to ICU Clinical teams, Plymouth University staff and NIHR funding for MClinRes

Delirium Screening Tools

http://www.icudelirium.org/

CAM-ICU

Confusion Assessment Method in the ICU

RASS is above - 4
(-3 through +4)

Proceed to next Step

If RASS is -4 or -5

Stop

Reassess patient at later time

Delirium Assessment (CAM-ICU): 1 AND 2 AND (Either 3 OR 4)

1 Acute Onset or Fluctuating Course
An acute change from mental status baseline?
Or Patient's mental status fluctuating during the past 24hrs

→ **No** → **Stop No delirium**

Yes

2 Inattention
Please read the following ten letters: **S A V E A H A A R T**
Scoring: Error: when patient fails to squeeze on the letter "A"
Error: when the patient squeezes on any letter other than "A."

→ **< 3 Errors** → **Stop No delirium**

≥3 Errrors

3 Altered Level of Consciousness ("actual" RASS)
If RASS is zero, Proceed to next step

→ **If RASS is other than zero** → **Stop Patient is Delirious**

0 RASS

4 Disorganized Thinking
1. Will a stone float on water? (Or: Will a leaf float on water?)
2. Are there fish in the sea? (Or: Are there elephants in the sea?)
3. Does one pound weigh more than two pounds? (Or: Do two pounds weigh more than one?)
4. Can you use a hammer to pound a nail? (Or: Can you use a hammer to cut wood?)
5. **Command:**

Say to patient: "*Hold up this many fingers*" (Examiner holds two fingers in front of patient)
"*Now do the same thing with the other hand*" (Not repeating the number of fingers).
If patient is unable to move both arms for the second part, ask patient "*add one more finger*"

→ **≥ 2 Errors** → **Patient is Delirious**

→ **< 2 Errors** → **Stop No delirium**

ICDSC

Tufts Medical Center

Intensive Care Delirium Screening Checklist Worksheet (ICDSC)

- Score your patient over the entire shift. Components don't all need to be present at the same time.
- Components #1 through #4 require a focused bedside patient assessment. This cannot be completed when the patient is deeply sedated or comatose (ie. SAS = 1 or 2; RASS = -4 or -5).
- Components #5 through #8 are based on observations throughout the entire shift. Information from the prior 24 hrs (ie, from prior 1-2 nursing shifts) should be obtained for components #7 and #8.

1. Altered Level of Consciousness — NO 0 1 Yes

Deep sedation/coma over entire shift [SAS= 1, 2; RASS = -4,-5]	= Not assessable
Agitation [SAS = 5, 6, or 7; RASS= 1-4] at any point	= 1 point
Normal wakefulness [SAS = 4; RASS = 0] over the entire shift	= 0 points
Light sedation [SAS = 3; RASS= -1, -2, -3]:	= 1 point (if no recent sedatives) = 0 points (if recent sedatives)

2. Inattention — NO 0 1 Yes

Difficulty following instructions or conversation, patient easily distracted by external stimuli.
Will not reliably squeeze hands to spoken letter A: **S A V E A H A A R T**

3. Disorientation — NO 0 1 Yes

In addition to name, place, and date, does the patient recognize ICU caregivers?
Does patient know what kind of place they are in?
(list examples: dentist's office, home, work, hospital)

4. Hallucination, delusion, or psychosis — NO 0 1 Yes

Ask the patient if they are having hallucinations or delusions.
(e.g. trying to catch an object that isn't there).
Are they afraid of the people or things around them?

5. Psychomotor agitation or retardation — NO 0 1 Yes

Either: a) Hyperactivity requiring the use of sedative drugs or restraints in order to control potentially dangerous behavior (e.g. pulling IV lines out or hitting staff)
OR b) Hypoactive or clinically noticeable psychomotor slowing or retardation

6. Inappropriate speech or mood — NO 0 1 Yes

Patient displays: inappropriate emotion; disorganized or incoherent speech; sexual or inappropriate interactions; is either apathetic or overly demanding

7. Sleep-wake cycle disturbance — NO 0 1 Yes

Either: frequent awakening/< 4 hours sleep at night OR sleeping during much of the day

8. Symptom Fluctuation — NO 0 1 Yes

Fluctuation of any of the above symptoms over a 24 hr period.

TOTAL SHIFT SCORE: _____ **(0 – 8)**

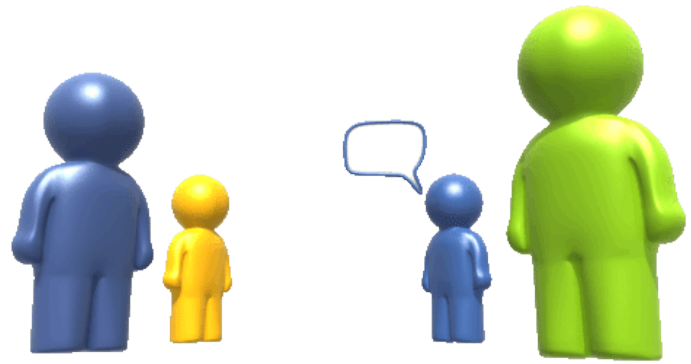
Score	Classification
0	Normal
1-3	Subsyndromal Delirium
4-8	Delirium

Adapted from: Bergeron et al. Intens Care Med 2001;27:859-64; Ouimet et al. Intens Care Med 2007;33:1007-13.

Setting a regional benchmark?

- Taking the feedback from the breakout groups… think in your tables of one initiative that you could take back to your department…..

- How can we increase delirium assessment in the region and measure our success?



Screening

Noise minimation

Education

Drugs ….

Sleep deprivation

Pain

Immobility

Catheters/Lines/NGT

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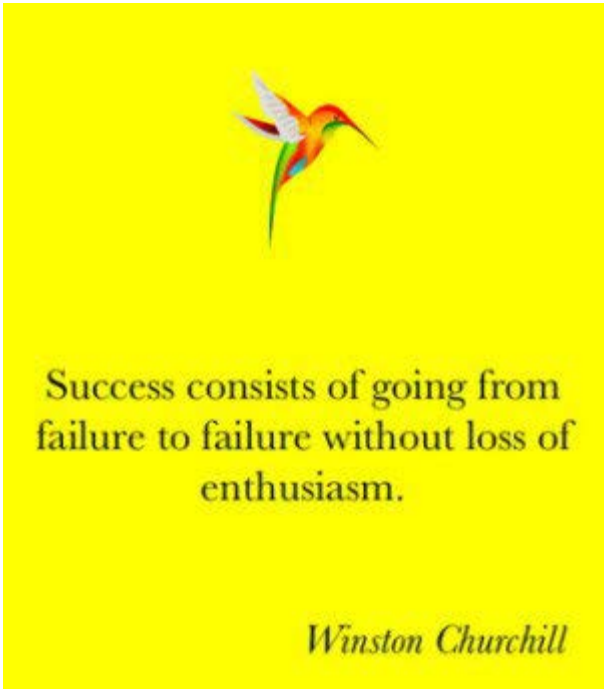

BACCN
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