



**Делирий у пациентов
в отделении
анестезиологии-
реанимации**

**КГБУЗ ККБ ОАР №5
Кафедра АиР ИПО КрасГМУ
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«__» _____ **2015 г.**

«СОГЛАСОВАНО»

**Президент Федерации
анестезиологов и
реаниматологов
Российской Федерации,
профессор**

_____ **В.М. Мизиков**

«__» _____ **2015 г.**

Утверждены Президиумом Федерации Анестезиологов и Реаниматологов Российской Федерации ,

Рассмотрены и утверждены на совещании главных специалистов по анестезиологии и реаниматологии Министерства здравоохранения Российской Федерации

Седация в палате интенсивной терапии

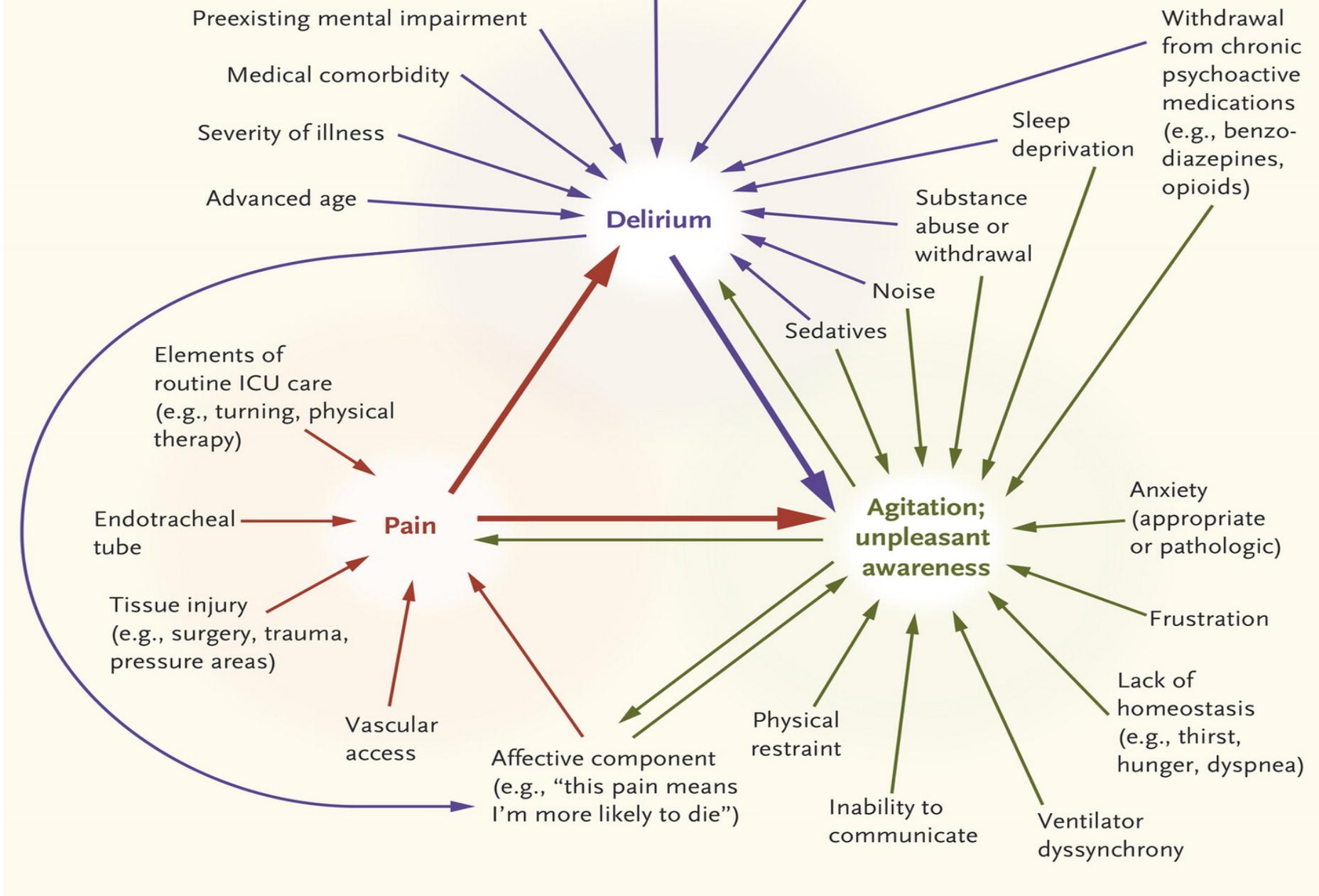
Клинические рекомендации

Рабочая группа: Лихванцев В.В. (Москва), Гребенчиков О.А. (Москва), Гридчик И.Е. (Москва), Грицан А.И.(Красноярск), Еременко А.А. (Москва), Заболотских И.Б.(Краснодар), Козлов И.А. (Москва), Левит А.Л. (Екатеринбург), Мазурок В.А.(Санкт-Петербург), Молчанов И.В. (Москва), Овечкин А.М. (Москва), Николаенко Э.М. (Москва), Овезов А.М. (Москва), Потиевская В.И. (Москва), Шапкин М.А. (Москва).



Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit

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Michael C. Reade, M.B., B.S., D.Phil., and Simon Finfer, M.D.
 N Engl J Med 2014; 370:444-454

**Делирий – латинское Delirium -
безумие, помешательство, от
Delirare – отклоняться от прямой
линии, безумствовать**

Делирий

этиологический неспецифический, органический
церебральный синдром, характеризующийся
нарушениями сознания, внимания, восприятия,
мышления, памяти, психомоторного поведения,
эмоций, нарушением чередования сна-
бодрствования

Steiner L. Eur. J. Anaesthesiol. 2011; 28: 628-636

МКБ-10

делирий - этиологически неспецифический органический церебральный синдром, характеризующийся одновременным нарушением сознания и внимания, восприятия, мышления, памяти, психомоторного поведения, эмоций, цикличности сна и бодрствования. Длительность состояния варьируется, и степень тяжести колеблется от средней до очень тяжелой

По двигательным проявлениям

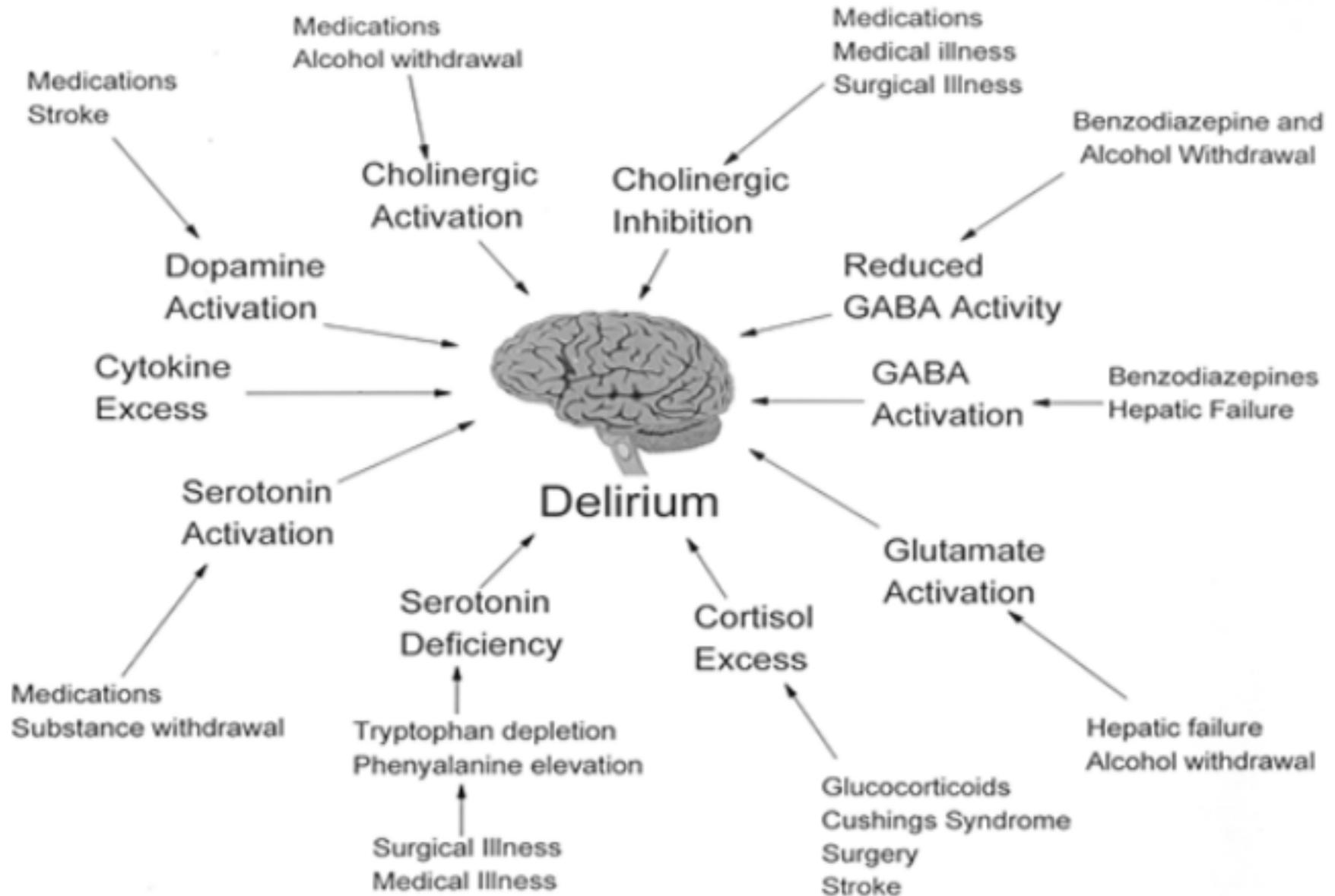
1. гиперактивный (в ОАР часто называют психозом);
2. гипоактивный (тихий делирий)
3. смешанный (двигательные проявления колеблются между гипер- и гипоактивным делирием)

Основные механизмы, приводящие к развитию делирия

1. анатомический дефицит (повреждение высших корковых зон, таких как префронтальная и задняя теменная области не доминантного полушария, передний таламус, базальные ганглии, височно-затылочные доли)

2. нарушение уровня нейротрансмиттеров (изменение уровня серотонина, дефицит ацетилхолина, избыток допамина).

Delirium Pathophysiology



Older age and male sex have been associated with an increased and independent risk of delirium

Lee HB et al. J Am Geriatr Soc 2011,59(12)

Twenty-five risk factors were significantly associated with delirium, and among those four were recognized as predisposing to delirium: respiratory disease, older age, alcohol abuse, dementia.

Van Rompaey B. et al. Intensive Crit Care Nurs 2008,24(2)

Twenty-one risk factors were considered precipitating, because they were related the patient's underlying disease.

Alagiakrishnan K, Wiens CA Postgrad Med J 2004,80(945)

Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit

- i. Four baseline risk factors are positively and significantly associated with the development of delirium in the ICU: preexisting dementia, history of hypertension and/or alcoholism, and a high severity of illness at admission (B).
- ii. Coma is an independent risk factor for the development of delirium in ICU patients (B).
- iii. Conflicting data surround the relationship between opioid use and the development of delirium in adult ICU patients (B).
- iv. Benzodiazepine use may be a risk factor for the development of delirium in adult ICU patients (B).
- v. There are insufficient data to determine the relationship between propofol use and the development of delirium in adult ICU patients (C).
- vi. In mechanically ventilated adult ICU patients at risk of developing delirium, dexmedetomidine infusions administered for sedation may be associated with a lower prevalence of delirium compared to benzodiazepine infusions (B).

Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit

b. Detecting and monitoring delirium

- i. We recommend routine monitoring of delirium in adult ICU patients (+1B).**
- ii. The Confusion Assessment Method for the ICU (CAM-ICU) and the Intensive Care Delirium Screening Checklist (ICDSC) are the most valid and reliable delirium monitoring tools in adult ICU patients (A).**
- iii. Routine monitoring of delirium in adult ICU patients is feasible in clinical practice (B).**

**Diagnostic and Statistical Manual of Mental Disorders, 4th
edition (DSM-IV)**
**(справочник Ассоциации по диагностики психических
заболеваний)**

1.Нарушение сознания

2.Изменение когнитивных функций

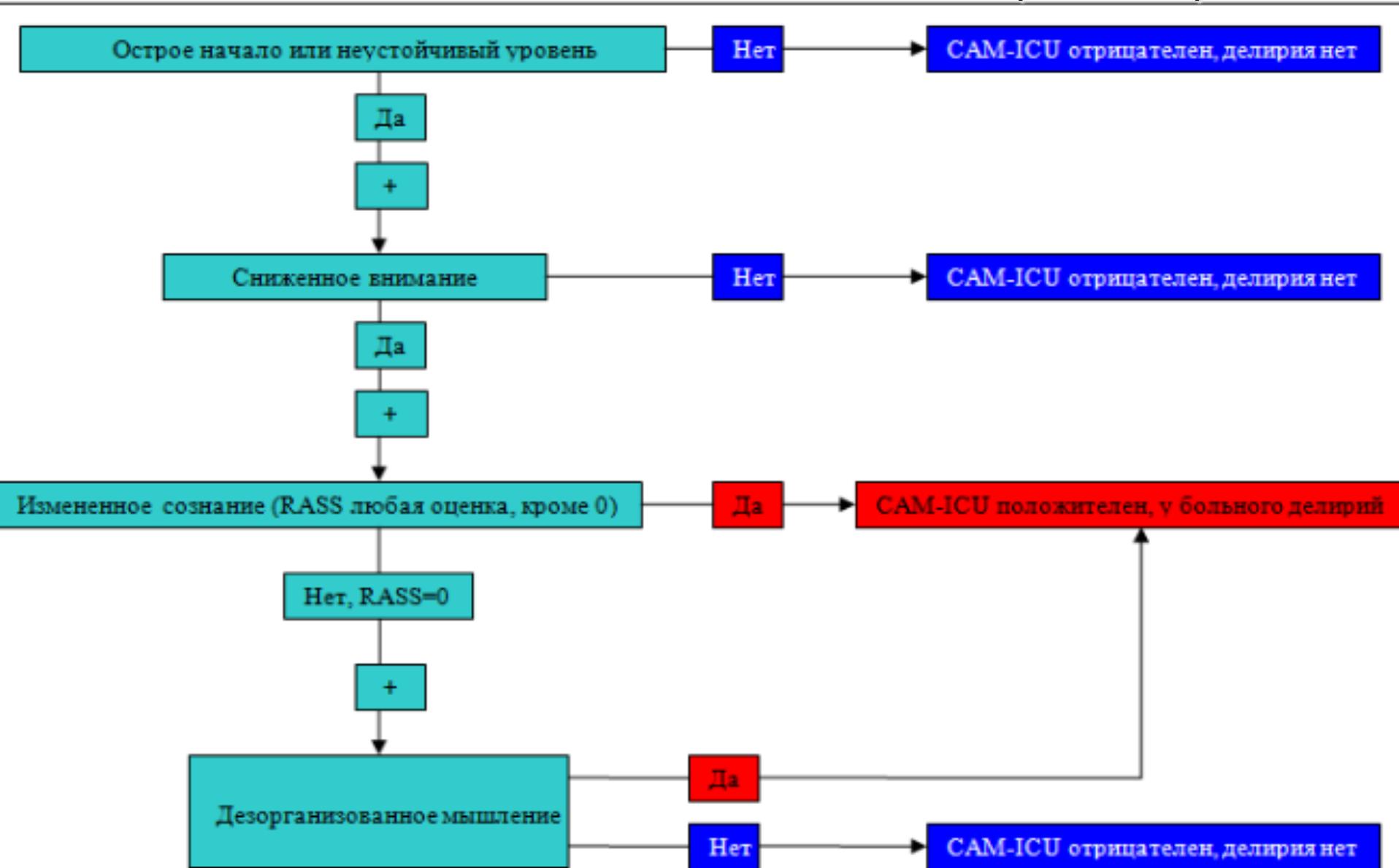
3.Развитие за короткий период времени (в течение
нескольких часов или дней)

4.Изменение клинических проявлений в течение суток

Diagnostic and statistical manual of mental disorders,
4th ed. text rev.: DSM-IV-TR.
Arlington, VA: American Psychiatric Association, 2011.

Метод оценки наличия спутанности сознания в отделении интенсивной терапии

Confusion Assessment Method for the ICU (CAM-ICU)



Чек-лист для скрининговой оценки наличия делирия в интенсивной терапии

The Intensive Care Delirium Screening Checklist (ICDSC)

1. нарушение уровня сознания
2. невнимательность
3. дезориентация
4. галлюцинации
5. психомоторное возбуждение или запаздывание движений
6. неадекватная речь
7. нарушение цикличности сон/бодрствование
8. изменение клинических проявлений

1 балл за наличие признака

сумма баллов 1-3 возможный делирий; более 4 баллов – делирий.

[-] Скрининг наличия делирия (ICDSC)

невозможно оценить в силу отсутствия контакта с пациентом

нарушения уровня сознания

да

нет

невнимательность

да

нет

дезориентация

да

нет

галлюцинации

да

нет

психомоторное возбуждение или запаздывание движений

да

нет

неадекватная речь

да

нет

нарушения цикличности сна/ бодрствования

да

нет

изменение клинических проявлений

да

нет

Всего

0

Music interventions for mechanically ventilated patients.

Bradt J¹, Dileo C.

⊕ Author information

Abstract

BACKGROUND: Mechanical ventilation often causes major distress and anxiety in patients. The sensation of breathlessness, frequent suctioning, inability to talk, uncertainty regarding surroundings or condition, discomfort, isolation from others, and fear contribute to high levels of anxiety. Side effects of analgesia and sedation may lead to the prolongation of mechanical ventilation and, subsequently, to a longer length of hospitalization and increased cost. Therefore, non-pharmacological interventions should be considered for anxiety and stress management. Music interventions have been used to reduce anxiety and distress and improve physiological functioning in medical patients; however, their efficacy for mechanically ventilated patients needs to be evaluated. This review was originally published in 2010 and was updated in 2014.

AUTHORS' CONCLUSIONS: This updated systematic review indicates that music listening may have a beneficial effect on anxiety in mechanically ventilated patients. These findings are consistent with the findings of three other Cochrane systematic reviews on the use of music interventions for anxiety reduction in medical patients. The review furthermore suggests that music listening consistently reduces respiratory rate and systolic blood pressure. Finally, results indicate a possible beneficial impact on the consumption of sedatives and analgesics. Therefore, we conclude that music interventions may provide a viable anxiety management option to mechanically ventilated patients.

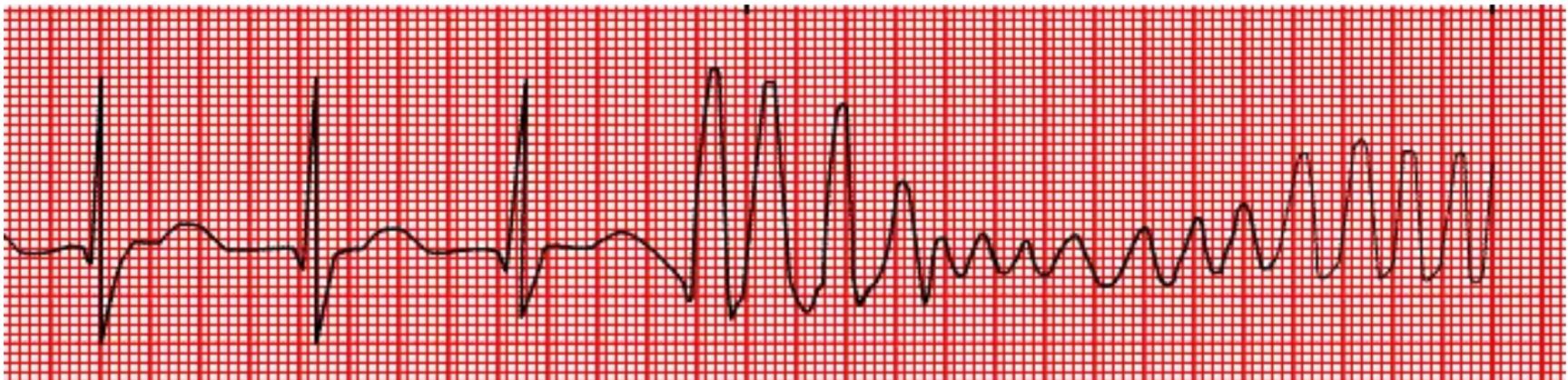
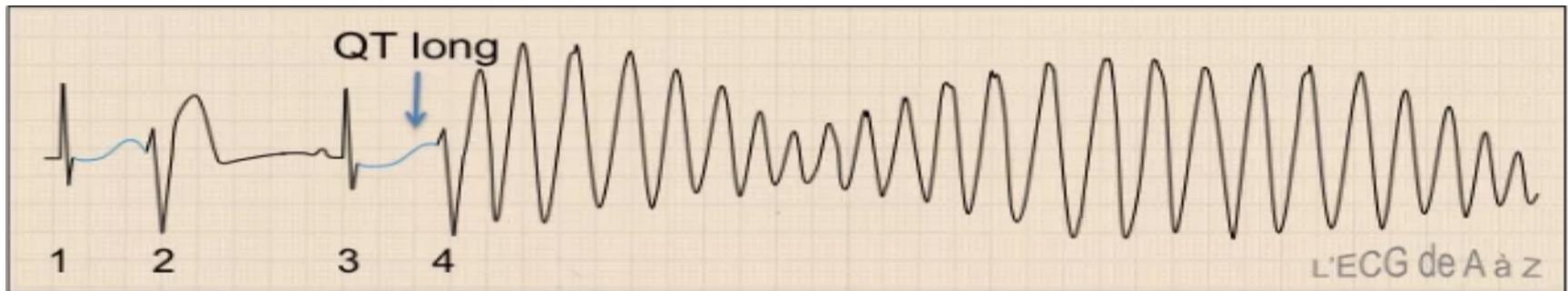
Фармакотерапия

Галоперидол – антагонист Допаминовые (D2)-R в коре головного мозга.

Эффективная доза зависит от тяжести Делирия - 2–10 mg IV каждые 6 h.

Побочные эффекты: экстрапирамидные проявления в виде дистоний, подострого Паркинсонизма, доза-зависимой пролонгации QTc (0,36-0,44 sec) и злокачественного нейролептического синдрома.

Torsade de pointes - это французский термин, который в литературном переводе означает «пляска точек». Впервые он был предложен Дессертенем в 1966 г. для описания полиморфного желудочкового ритма, занимающего промежуточное положение между желудочковой тахикардией и фибрилляцией желудочков.



Атипичные антипсихотики: Olanzapine (Зипрекса, Заласта, Оланзапин), Risperidone (Сперидан, Рисполепт, Рисполепт-Квиклет), Quetiapine (Квентиакс).

Квентиакс –проявляет более высокое сродство к серотониновым рецепторам 5-НТ₂, чем к дофаминовым рецепторам D₁ и D₂ головного мозга. Кветиапин обладает сродством к α ₁- и гистаминовым рецепторам, и в меньшей степени сродством к α ₂-рецепторам.

Alpha-2 агонисты

Prevalence of Delirium and Coma In Mechanically Ventilated Patients Sedated With Dexmedetomidine or Propofol.

[Jiang YK](#), [Wang S](#), [Lam TS](#), [Hanna A](#), [DeMuro JP](#), [Calixte R](#), [Brathwaite CE](#).



CONCLUSION: No difference in the prevalence of delirium was found when comparing the dexmedetomidine- and propofol-treated groups. Propofol was associated with more coma and oversedation; dexmedetomidine was associated with longer time to extubation, longer length of stay in the ICU, and longer hospital length of stay.

Alpha-2 agonists for sedation of mechanically ventilated adults in intensive care units: a systematic review.

[Cruickshank M](#)¹, [Henderson L](#)¹, [MacLennan G](#)¹, [Fraser C](#)¹, [Campbell M](#)¹, [Blackwood B](#)², [Gordon A](#)³, [Brazzelli M](#)¹.

Author information

Abstract

BACKGROUND: Care of critically ill patients in intensive care units (ICUs) often requires potentially invasive or uncomfortable procedures, such as mechanical ventilation (MV). Sedation can alleviate pain and discomfort, provide protection from stressful or harmful events, prevent anxiety and promote sleep. Various sedative agents are available for use in ICUs. In the UK, the most commonly used sedatives are propofol (Diprivan(®), AstraZeneca), benzodiazepines [e.g. midazolam (Hypnovel(®), Roche) and lorazepam (Ativan(®), Pfizer)] and alpha-2 adrenergic receptor agonists [e.g. dexmedetomidine (Dexdor(®), Orion Corporation) and clonidine (Catapres(®), Boehringer Ingelheim)]. Sedative agents vary in onset/duration of effects and in their side effects. The pattern of sedation of alpha-2 agonists is quite different from that of other sedatives in that patients can be aroused readily and their cognitive performance on psychometric tests is usually preserved. Moreover, respiratory depression is less frequent after alpha-2 agonists than after other sedative agents.

CONCLUSIONS: Evidence on the use of clonidine in ICUs is very limited. Dexmedetomidine may be effective in reducing ICU length of stay and time to extubation in critically ill ICU patients. Risk of bradycardia but not of overall mortality is higher among patients treated with dexmedetomidine. Well-designed RCTs are needed to assess the use of clonidine in ICUs and identify subgroups of patients that are more likely to benefit from the use of dexmedetomidine.

Бензодиазепины

In the ICU, benzodiazepines appear to have a significant role in the manifestation of delirium.

Prevalence and risk factors for development of delirium in surgical and trauma intensive care unit patients.

Pandharipande P, Cotton BA, Shintani A, Thompson J, Pun BT, Morris JA Jr, Dittus R, Ely EW

J Trauma. 2008 Jul; 65(1):34-41.

Benzodiazepine use in ICU is also associated with posttraumatic stress disorder and depression.

Investigating risk factors for psychological morbidity three months after intensive care: a prospective cohort study.

Wade DM, Howell DC, Weinman JA, Hardy RJ, Mythen MG, Brewin CR, Borja-Boluda S, Matejowsky CF, Raine RA

Crit Care. 2012 Oct 15; 16(5):R192.

Review Sedation and sleep disturbances in the ICU.

Weinhouse GL, Watson PL

Crit Care Clin. 2009 Jul; 25(3):539-49, ix.

If patients have

any history of alcohol abuse, benzodiazepines can be used for alcohol withdrawal; otherwise, benzodiazepines should only be used sparingly and only if it can be demonstrated that the benefit outweighs the risk.

Фиксация пациентов

Intensive Crit Care Nurs. 2010 Oct;26(5):241-5. doi: 10.1016/j.iccn.2010.08.003.

Physical restraint use in intensive care units across Europe: the PRICE study.

Benbenbishty J¹, Adam S, Endacott R.

⊕ Author information

Abstract

The use of physical restraint has been linked to delirium in ICU patients and a range of physical and psychological outcomes in non-ICU patients. However, the extent of restraint practice in ICUs is largely unknown. This study was designed to examine physical restraint practices across European ICUs. A prospective point prevalence survey was conducted in adult ICUs across European countries to examine: physical and chemical restraint use during the weekend and weekdays, reasons for physical restraint use, timing of restraint use, type of restraint used and availability of restraint policies. Thirty-four general (adult) ICUs in nine countries participated in the study providing information on 669 patients with details of physical and chemical restraint use in 566 patients. Prevalence of physical restraint use in individual units ranged from 0 to 100% of patients. Thirty-three per cent of patients were physically restrained; those that were restrained were more likely to be ventilated ($\chi^2=87.56$, $p<0.001$), sedated ($\chi^2=34.66$, $p<0.001$), managed in a larger unit ($\chi^2=10.741$, $p=.005$) and managed in a unit with a lower daytime nurse:patient ratio ($\chi^2=17.17$, $p=0.001$). Larger units were more likely to use commercial wrist restraints and smaller units were more likely to have a restraint policy, although these results did not reach significance. As an initial exploration, this study provides evidence of the range of restraint practice across Units in Europe. Variation in the number of units per country limits generalization of findings. However, further examination is needed to determine whether there is a causal element to these relationships. Attention should be paid to developing evidence based guidelines to underpin restraint practices.

Фиксация пациентов

Медицинское стеснение

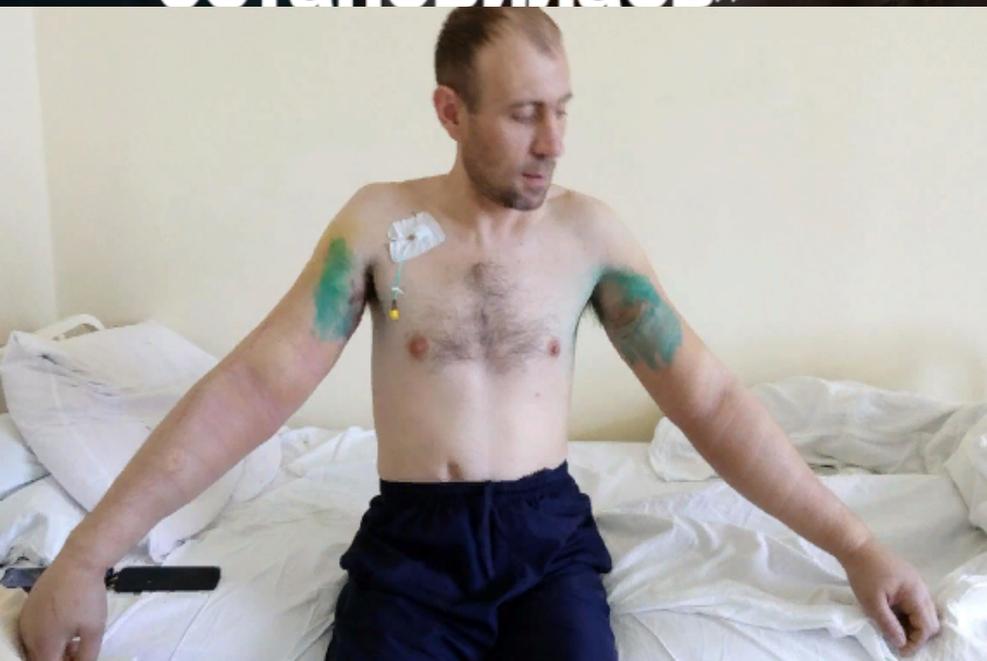
Фиксация тела или отдельных его частей с помощью рук медицинского персонала

Фиксация тела или его отдельных частей с помощью специальных вязок к кровати

Введение медицинских препаратов, обладающих седативными, анксиолитическим эффектом, анальгетиков

СЮЖЕТЫ

«Доктор приказал так меня связать, чтобы в руках кровь остановилась»



Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit

- i. There is no published evidence that treatment with haloperidol reduces the duration of delirium in adult ICU patients (No Evidence).
- ii. Atypical antipsychotics may reduce the duration of delirium in adult ICU patients (C).
- iii. We do not recommend administering rivastigmine to reduce the duration of delirium in ICU patients (−1B).
- iv. We do not suggest using antipsychotics in patients at significant risk for torsades de pointes (i.e., patients with baseline prolongation of QTc interval, patients receiving concomitant medications known to prolong the QTc interval, or patients with a history of this arrhythmia) (−2C).
- v. We suggest that in adult ICU patients with delirium unrelated to alcohol or benzodiazepine withdrawal, continuous IV infusions of dexmedetomidine rather than benzodiazepine infusions be administered for sedation to reduce the duration of delirium in these patients (+2B).

Delirium prevention

- i. We recommend performing early mobilization of adult ICU patients whenever feasible to reduce the incidence and duration of delirium (+1B).
- ii. We provide no recommendation for using a pharmacologic delirium prevention protocol in adult ICU patients, as no compelling data demonstrate that this reduces the incidence or duration of delirium in these patients (0,C).
- iii. We provide no recommendation for using a combined nonpharmacologic and pharmacologic delirium prevention protocol in adult ICU patients, as this has not been shown to reduce the incidence of delirium in these patients (0,C).
- iv. We do not suggest that either haloperidol or atypical antipsychotics be administered to prevent delirium in adult ICU patients (-2C).
- v. We provide no recommendation for the use of dexmedetomidine to prevent delirium in adult ICU patients, as there is no compelling evidence regarding its effectiveness in these patients (0,C).

First published: 30 March 2005 | <https://doi.org/10.1111/j.1532-5415.2005.53210.x> | Cited by:180

A Multifactorial Intervention Program Reduces the Duration of Delirium, Length of Hospitalization, and Mortality in Delirious Patients

Maria Lundström RN, PhD, Agneta Edlund RN, Stig Karlsson RN, PhD, Benny Brännström RN, PhD, Gösta Bucht MD, PhD, Yngve Gustafson MD, PhD

Conclusion: This study shows that a multifactorial intervention program reduces the duration of delirium, length of hospital stay, and mortality in delirious patients.

- 1) orientation,**
- 2) therapeutic activities,**
- 3) early mobilization,**
- 4) vision/hearing optimization,**
- 5) oral volume repletion**
- 6) sleep enhancement.**

Reorienting ICU Patients

Before-after observations in 214 ICU patients

Interventions: – Night environment, music therapy, visual cues
(clock)

Reorientation with **5 W's** and **1 H**

Who? Who are you? Who is the nurse/physician?

What? What happened?

Where? Where are you/we?

Why? Why did it happen?

How? How did it happen?

What is the illness progression?

Result: Delirium incidence reduction – **Pre 35%** vs. **post 22%**





**Спасибо за
внимание!**
