



*Partea 6: Anestezia în funcție de tipul intervenției chirurgicale.  
Management perioperator.*

*Subcategoria: Anestezia în sismoterapie*

Data : 14.12.2017

Limba: Română

Oraș: Tîrgu Mureș

Țara: România

Lector: Ruxandra Copotoiu

**'A roar of protest against middlebrow society's Rules and the Rulers who enforce them'**  
Time

Tyrannical Nurse Ratched rules her ward in an Oregon State mental hospital with a strict and unbending routine, unopposed by her patients, who remain cowed by mind-numbing medication and the threat of electric shock therapy. But her regime is disrupted by the arrival of McMurphy — the swaggering, fun-loving trickster with a devilish grin who resolves to oppose her rules on behalf of his fellow inmates. His struggle is seen through the eyes of Chief Bromden, a seemingly mute half-Indian patient who understands McMurphy's heroic attempt to do battle with the powers that keep them imprisoned. Ken Kesey's extraordinary first novel is an exuberant, ribald and devastatingly honest portrayal of the boundaries between sanity and madness.

KEN KESSEY

# ONE FLEW OVER THE CUCKOO'S NEST

One Flew Over the Cuckoo's Nest

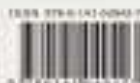
Ken Kesey

'An attack on all forms of authority and a celebration of the free spirit'  
Guardian



Harmondsworth  
Illustrations

GB £10.99  
CAN \$20.00  
US \$10.99



Illustrations by  
John Alvin







	Movies N = 57	TV series N = 25	Total scenes N = 82
	N (%)	N (%)	N (%)
<i>Informed consent</i>			
Yes/implicit	8 (14)	11 (44)	19 (23.2)
By proxy	9 (15.8)	0 (0)	9 (11)
No/coercive	34 (59.6)	13 (52)	47 (57.3)
Not shown/unclear	6 (10.5)	1 (4)	7 (8.5)
<i>Sex</i>			
Female	29 (50.9)	12 (48)	41 (50)
<i>Indication</i>			
Depression and related	9 (15.8)	5 (20)	14 (17)
Psychosis and related	16 (28.1)	5 (20)	21 (25.6)
Behavioral correction	9 (15.8)	1 (4)	10 (12.2)
Torture	8 (14.0)	3 (12)	11 (13.4)
Erasing memories	1 (1.8)	7 (28)	8 (9.7)
Homosexuality	2 (3.6)	1 (4)	3 (3.6)
Other	14 (24.6)	5 (20)	19 (23.2)
<i>Anesthesia</i>			
Modified	13 (22.8)	8 (32)	21 (25.6)
Unmodified	42 (73.7)	17 (68)	59 (72)
Not shown/unclear	2 (3.5)	0 (0)	2 (2.4)
<i>Mouth guard</i>			
Mouth guard used	47 (80.7)	23 (92)	70 (85.4)
<i>Electrodeposition</i>			
Bitemporal	52 (92.9)	21 (84)	73 (89)
Bifrontal	2 (3.5)	2 (8)	4 (4.9)
Unilateral	0 (0)	1 (4)	1 (1.2)
Headcap	2 (3.5)	1 (4)	3 (3.6)
Not shown/unclear	1 (1.7)	0 (0)	1 (1.2)

1938, 30 ani fără anestezie

**Incidență:** 70000/an Fr

**Mortalitate:** 2.1/100000 en 2017 (4/1997)

**Morbiditate:** 1:1300

**Reglementare:** SSPI (décret 05.12.1994)

Durață: 25-50 sec

**Table 1** Cutoffs for five aspects of seizure quality in relation to age

Item	Age $\leq 70$	Age $> 70$
1. Seizure duration	Motor activity $\geq 20$ s or EEG activity $\geq 30$ s	Motor activity $\geq 15$ s or EEG activity $\geq 25$ s
2. Central inhibition	Concordance $\geq 0.8$ or postictal suppression index $\geq 80$ %	
3. Amplitude	Midictal amplitude $\geq 180$ $\mu\text{V}$	Midictal amplitude $\geq 150$ $\mu\text{V}$
4. Synchronicity	Ictal coherence $\geq 90$ %	
5. Autonomic activation	Peak heart rate $\geq 130$ bpm	Peak heart rate $\geq 110$ bpm

**Table 2** Overview of the seizure quality categories

Score	Seizure quality categories	Definition
3	Ideal	Item 1–5 fulfilled
2	Nearly Ideal	Item 1 and three out of the four other criteria fulfilled
1	Intermediate	Intermediate category for seizures that neither fulfilled the criteria for “nearly ideal” nor for “probable insufficient”  Formal definition: Either item 1 not fulfilled but at least three of the other items or item 1 fulfilled but no more than two of the other items
0	Probable insufficient	Neither item 1 nor at least three of the other items fulfilled

## Criză generalizată

- ↑ FSC
- ↑ PIC



**133%**

∄ Durată criză clinică/activitate electrică

Deficit ischemic tranzitor

Hemoragie intracerebrală

Pierderi de memorie de scurtă durată

**∅ leziune directă**

# Răspuns CV



**PS**  
bradycardie

**S**

**Ef maxim 3-5 min**

Tachycardie +20%  
HTA + 30-40%

$\uparrow 2-4x \dot{V}O_2$  ♥

Efect dependent de calitatea crizei EEG (hiperventilație și hipercapnie)

$\downarrow$  **fonc S&D VG 20min  $\Rightarrow$  6h**



# Alte efecte

## Musculosheletice

- Contractii mioclonice
- #/dislocări osoase
- Dureri musculare/articulare

## Diverse

- Hipersalivație
- G&V
- Leziuni dentare
- Lacerări cavitate bucală
- Delir de urgență
- Moarte subită

# Contraindicații

## Absolute

?

## Relative

IDM 3 luni

Angor instabil

AVC 3 luni

← **PIC**

Anevrism cerebral netratat

Leziune cervicală

# majore

← **Feocromocitom**  
IC, valvulopatii severe

TVP

← **DR**

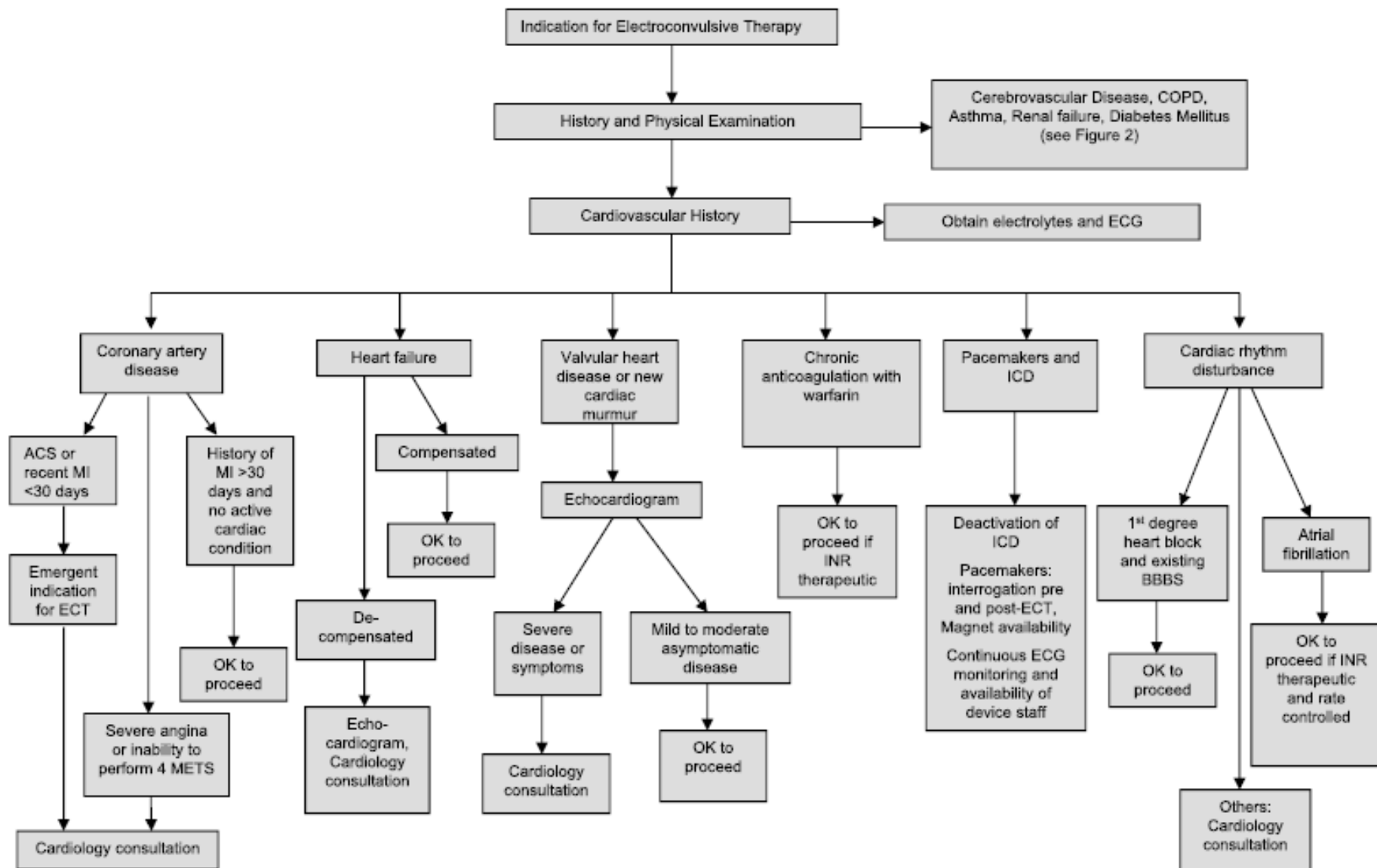
# Evaluare preanestezie

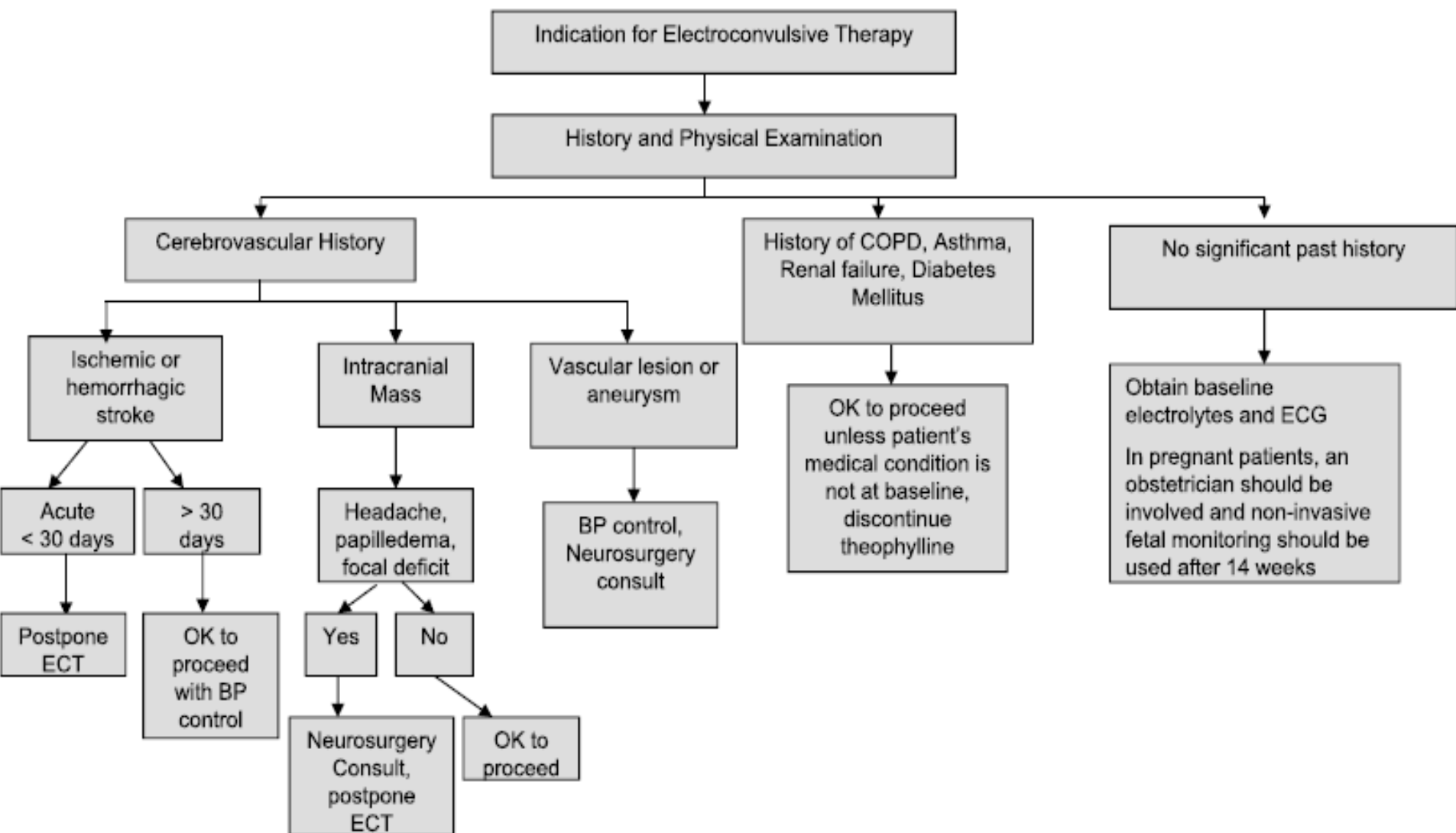
## Reguli de securitate

- CV
- Alergii
- Osteoporoză

## Tratamente concomitente

- Li ++ curară; ECT întreținere 0.6mEq/l
- ADT ++ eff CV
- IMAO selectivi: crize prelungite
- Inhibitori ai recaptării serotoninei: status epileptic





# STOP BANG



## What Do You Do if OSA Is Suspected: STOP-BANG

### ▶ STOP Questionnaire

- Snoring
- Tiredness
- Observed you stop breathing
- Blood Pressure

### ▶ BANG

- BMI >35
- Age >50
- Neck circumference >40 cm (>15.7")
- Gender male

**High risk: Yes to  $\geq 3$  items → Refer for sleep testing**

**Risc scăzut de apnee obstructivă de somn:** „Da” la 0-2 întrebări

**Risc mediu de apnee obstructivă de somn:** „Da” la 3-4 întrebări

**Risc crescut de apnee obstructivă de somn:** „Da” la 5-8 întrebări

sau „Da” la 2 sau mai multe din primele 4 întrebări + sex masculin

sau „Da” la 2 sau mai multe din primele 4 întrebări + IMC > 35 kg/m<sup>2</sup>

sau „Da” la 2 sau mai multe din primele 4 întrebări + circumferința gâtului (43 cm la bărbați, 41 cm la femei)

# Tratamente cronice

Beta blocante

Inhibitori ai canalelor de calciu

Diuretice

Medicamente ce interferă cu SRAA 12h/HTA

Statine

Antiaritmice

Antiparkinsoniene

Antidiabetice

# Interacțiuni

Medicament	↑	=	↓
<b>Anesteziac</b>	<b>Etomidate</b> <b>Alfentanyl</b> <b>Remifentanil</b>	Methohexital	Thiopental Thiamylal Lorazepam Midazolam Ketamină Fentanyl <b>Propofol</b>
<b>Cardiovascular</b>	Aminofilină Cafeină	Clonidină <b>Esmolol</b> Labetalol Dexmedetomidină Nifedipină Nicardipină Nitroglicerină Nitroprusiate	Diltiazem <b>Lidocaine</b> Labetolol <b>Esmolol</b>



# Anestezie modificată

Narcoză + *curară*

Durață scurtă

Analgezie opțională

Control căi aeriene

# Practic

- Locație
- Pregătirea pacienților
- Alegerea tehnicii anestezice
- Hipnotice
- Curare
- Realizarea anesteziei
- Supraveghere post procedură

# Răspunsuri anormale

## Absența crizei

↓ an

↓/∅ prag epileptogen

Hiperventilație

Cafeină 500mg IV 5  
min pre inducție

Schimbarea  
hipnoticului  
(etomidat)

## Criză prelungită (>180/120 sec)

BZD rapide

D<sub>induction</sub> an

Nouă ECT

# Prevenirea complicațiilor CV

- Valvulopatii
- PM, ICD
- FA
- Clonidină
- Betablocanți
- Atropină

**Timing!!!**



ELSEVIER

Contents lists available at ScienceDirect

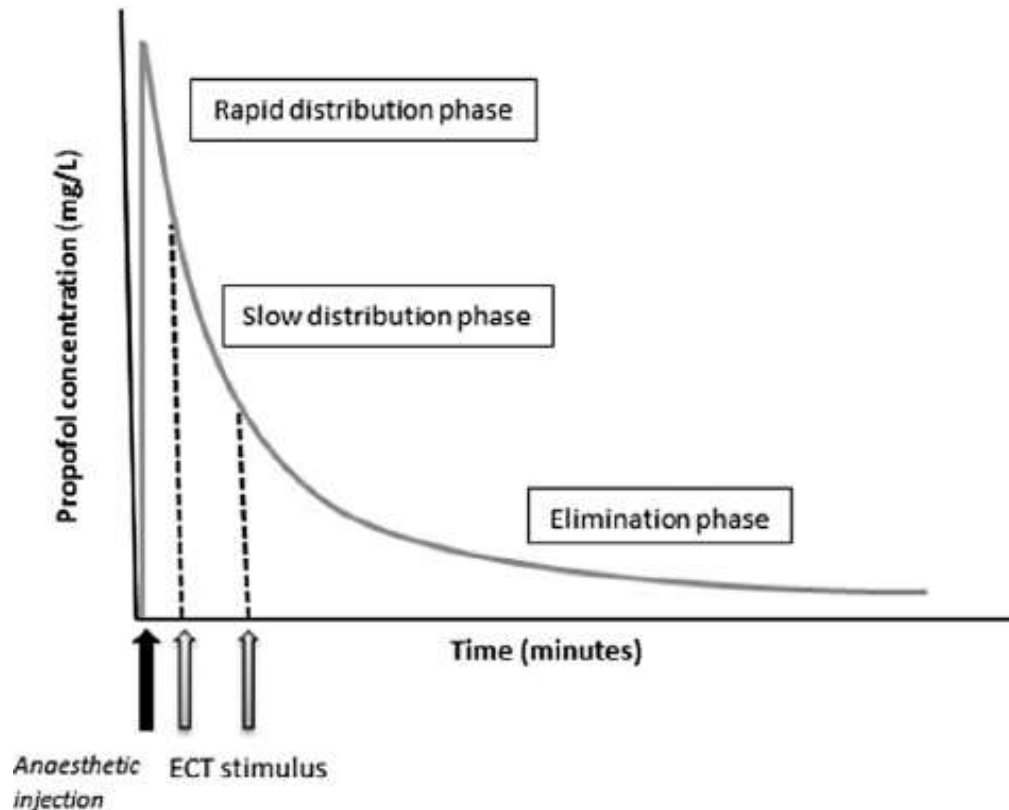
## Brain Stimulation

journal homepage: [www.brainstimjrn.com](http://www.brainstimjrn.com)

## The Anaesthetic-ECT Time Interval in Electroconvulsive Therapy Practice – Is It Time to Time?



Verónica Gálvez <sup>a,b,c</sup>, Dusan Hadzi-Pavlovic <sup>a,b</sup>, Harry Wark <sup>a,c,d,e</sup>, Simon Harper <sup>c,f</sup>,  
John Leyden <sup>c,g</sup>, Colleen K. Loo <sup>a,b,c,h,\*</sup>



# Aspecte actuale

- Premedicație cu dexmedetomidină
- Doze mici de remifentanil
- Ketamină
- Alternative la succinilcolină
- BIS

# Dexmedetomidină

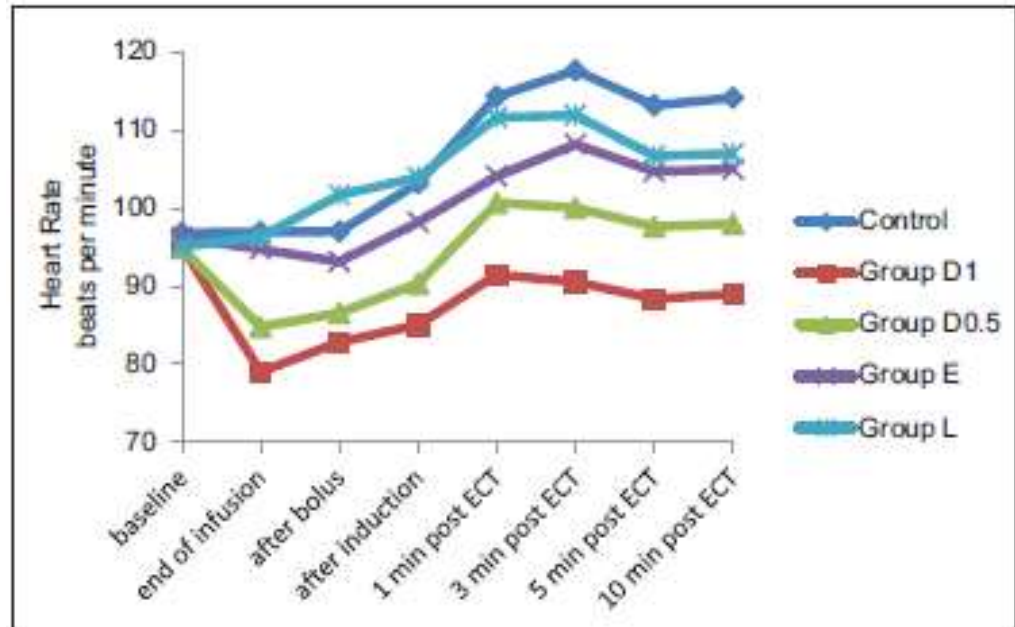
0.5-1.0  $\mu\text{g}/\text{kg}$

10-30 min pre inducție

⇔ alfentanyl

↓ delir de urgență

↑ timp revenire la starea de conștiență, respirație spontană





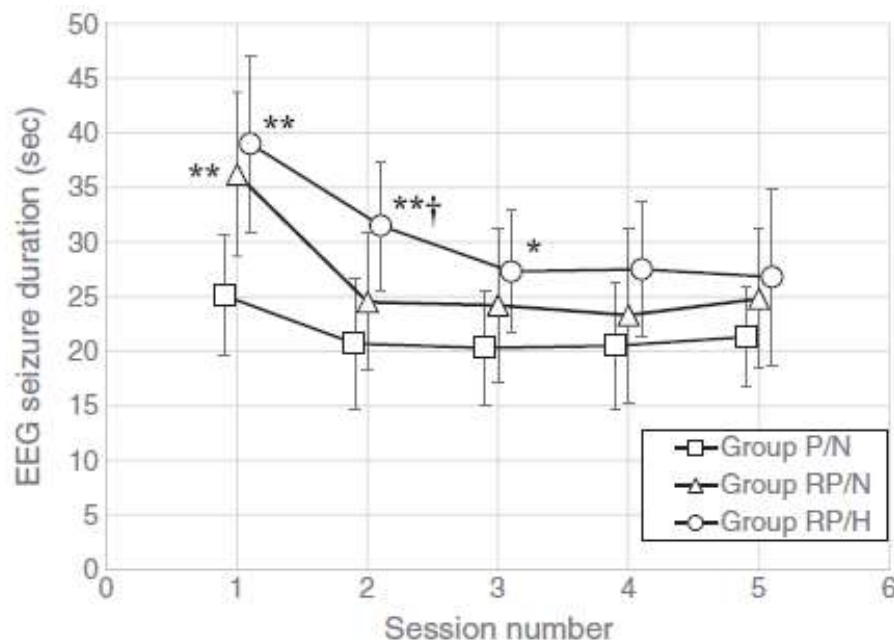
## Original Contribution

## Effects of the concurrent use of a reduced dose of propofol with divided supplemental remifentanyl and moderate hyperventilation on duration and morphology of electroconvulsive therapy-induced electroencephalographic seizure activity: A randomized controlled trial



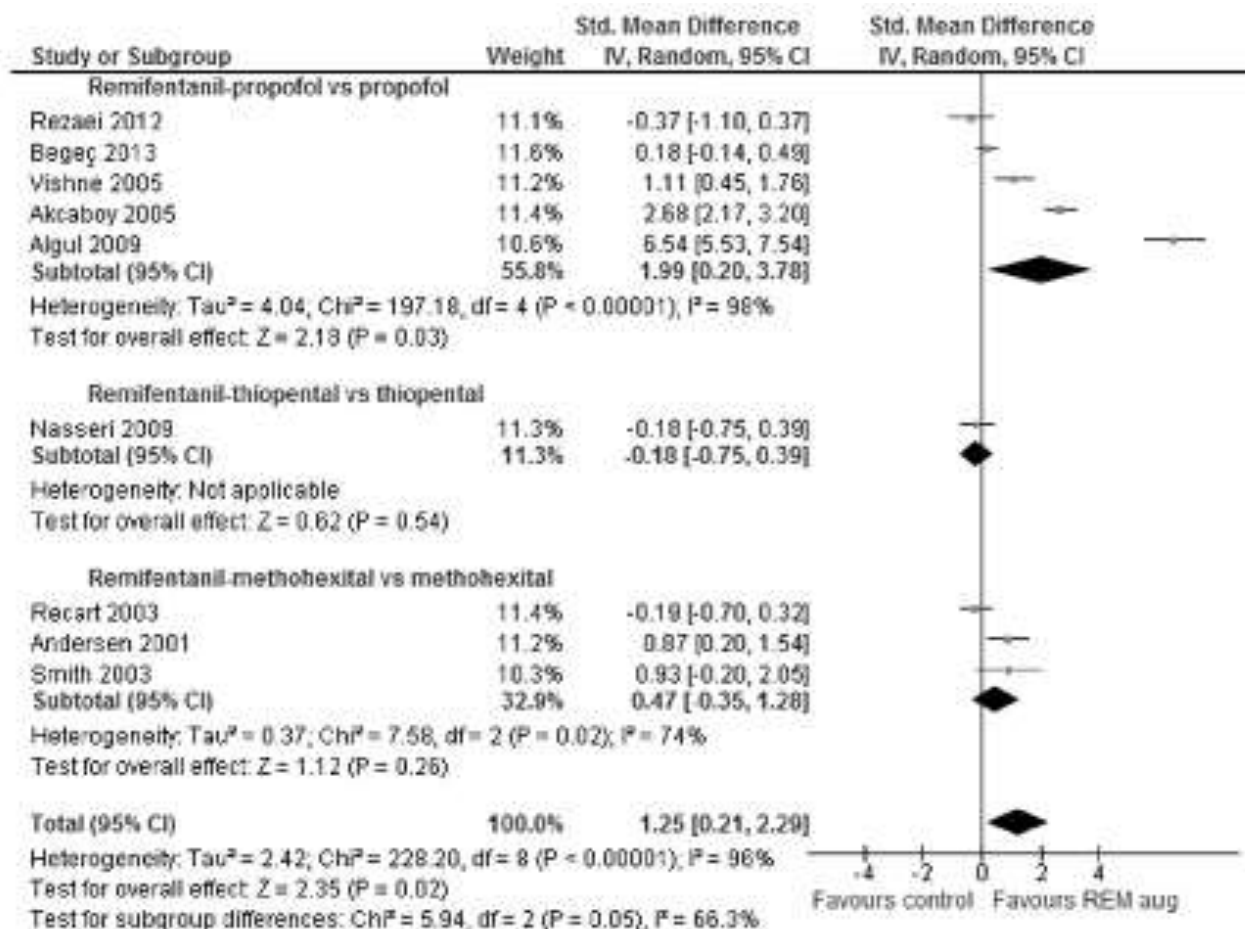
Kohki Nishikawa, MD, Staff Anesthesiologist<sup>a,\*</sup>

Michiaki Yamakage, MD, PhD, Professor and Chairman of Anesthesiology<sup>b</sup>

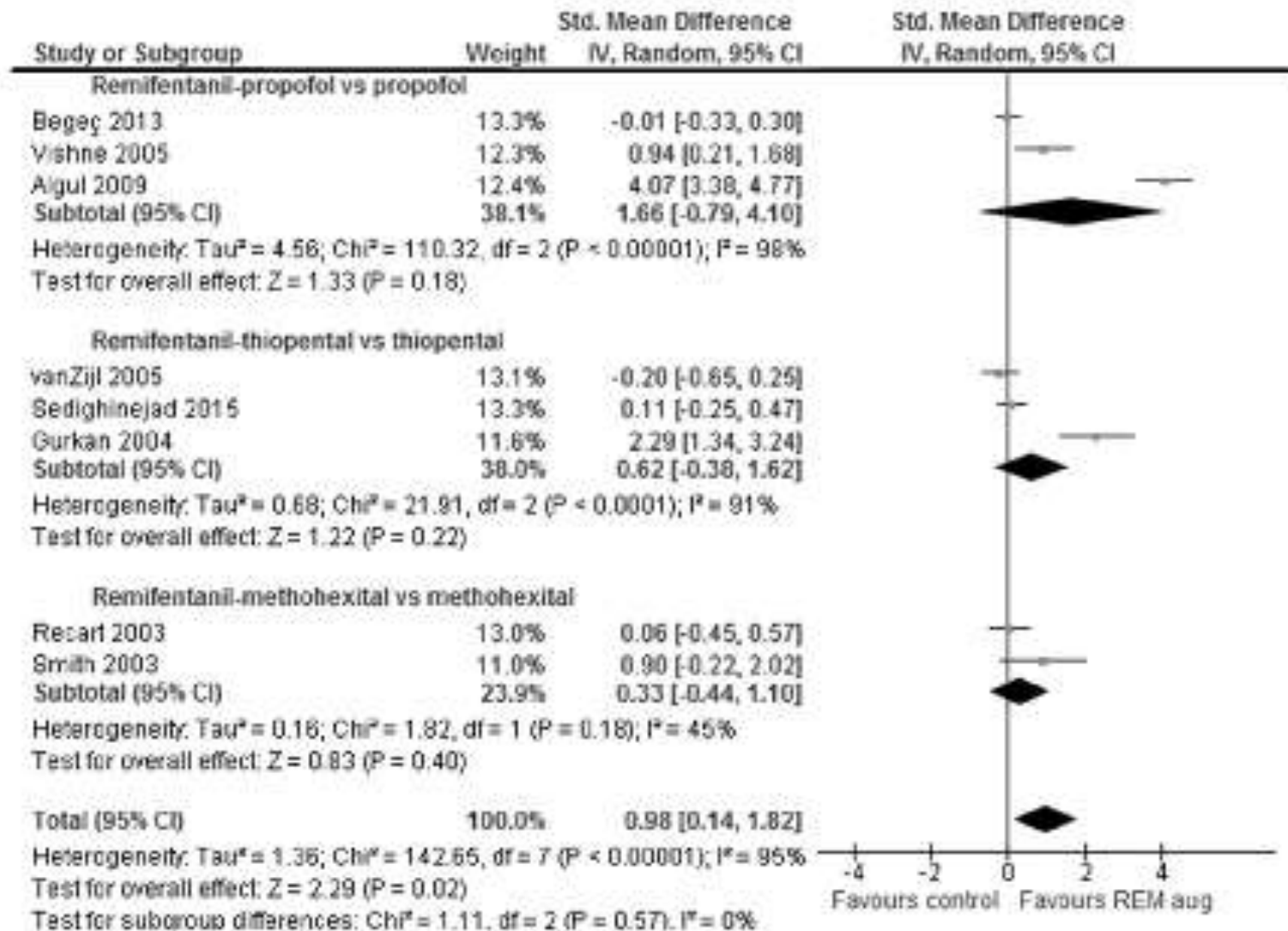




# Criză clinică



# Criză electrică



## Does remifentanil improve ECT seizure quality?

Verónica Gálvez<sup>1,2</sup> · Phern-Chern Tor<sup>3</sup> · Adriana Bassa<sup>1,2,4</sup> · Dusan Hadzi-Pavlovic<sup>1,2</sup> ·  
Ross MacPherson<sup>5,6</sup> · Mincho Marroquin-Harris<sup>5</sup> · Colleen K. Loo<sup>1,2,7</sup>

36 pts; 96 EEG

Dose an nemodificată  
Remifentanil după inducție



# Ketamină

0.7-2.8 mg/kg

Sedativ, analgezic

Efect antidepresiv

Activitate simpatomimetică intrinsecă

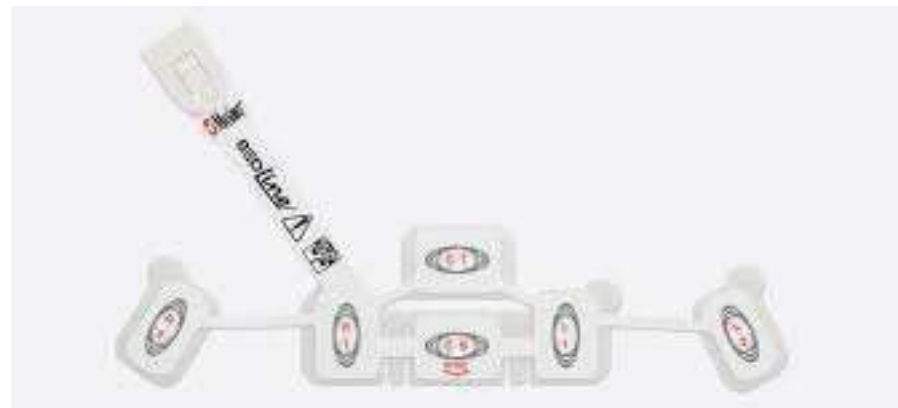
# Alternative la succinilcolină

Esmeron + sugammadex

## Improving Anesthetic Depth Assessment During Electroconvulsive Therapy With Bispectral Index Monitoring: A Pilot Quality Improvement Project

J. Frank Titch, DNP, CRNA  
Tracey Holsinger, MD  
Charles Vacchiano, PhD, CRNA  
Jane Blood-Siegfried, DNSc, CPNP

# To BIS or **not to BIS** ?





# ALL IN A DAY'S WORK

