

# Preoperative Patient Preparation: What's New in 2016?

**25<sup>th</sup> Annual Congress &  
18<sup>th</sup> French Lebanese Symposium**

on Anesthesiology, Critical Care  
& Pain Management

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# Perioperative fasting (except emergency)

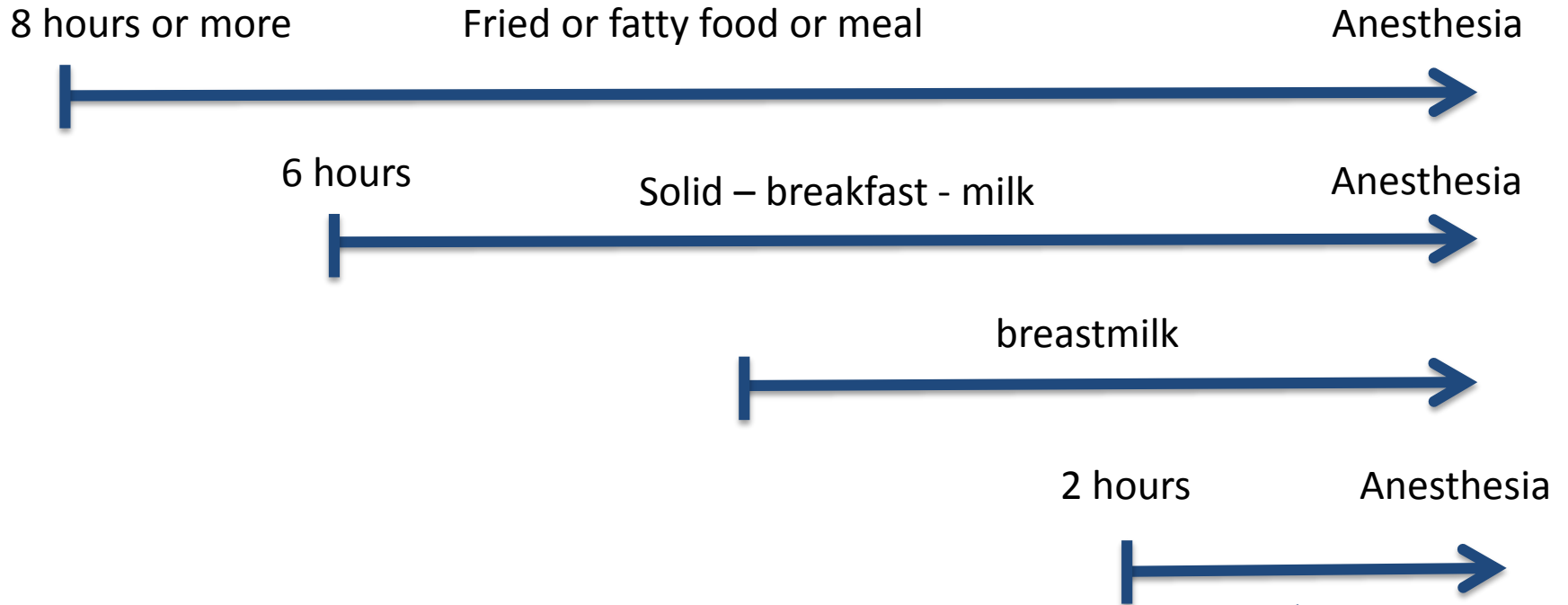
~~Perioperative fasting consisted of being nil by mouth from midnight before surgery and fasting postoperatively until recovery of bowel function~~

Practice Guideline Recommendations on Perioperative Fasting: A Systematic Review  
Eva Lambert  
*Journal of Parenteral and Enteral Nutrition* 2015

Reference	Country
National Collaborating Centre for Acute Care (2006) <sup>49</sup>	United Kingdom
Royal College of Nursing (2005) <sup>39</sup>	United Kingdom
Plauth et al (2006) <sup>42</sup>	European Union
Weimann et al (2006) <sup>43</sup>	European Union
Weimann et al (2009) <sup>51</sup>	Germany
Plauth et al (2009) <sup>48</sup>	Germany
Plauth et al (2009) <sup>44</sup>	European Union
Smith et al (2011) <sup>40</sup>	European Union
American Society of Anesthesiologists (2011) <sup>41</sup>	United States
Braga et al (2009) <sup>52</sup>	European Union
Nygren et al (2012) <sup>55</sup>	International
Gustafsson et al (2012) <sup>54</sup>	International
Scottish Intercollegiate Guidelines Network (2004) <sup>56</sup>	United Kingdom
American Society for Parenteral and Enteral Nutrition (2009) <sup>50</sup>	United States
Planas et al (2011) <sup>46</sup>	Spain
Montejo Conzalez et al (2011) <sup>45</sup>	Spain
McClave et al (2009) <sup>47</sup>	United States
Lassen et al (2012) <sup>53</sup>	International
Powell-Tuck et al (2011) <sup>57</sup>	United Kingdom

19 Guidelines

# Perioperative fasting



## Clear fluids:

- Tea – coffee
- Sweet or not
- Fruit juice without pulp

Unlimited amount of water

# Perioperative fasting

Obesity  
Pregnancy  
gastroesophageal reflux  
Diabetes

Same recommendations

Parturient

Clear fluids  
No solid

Oral Glucose solution

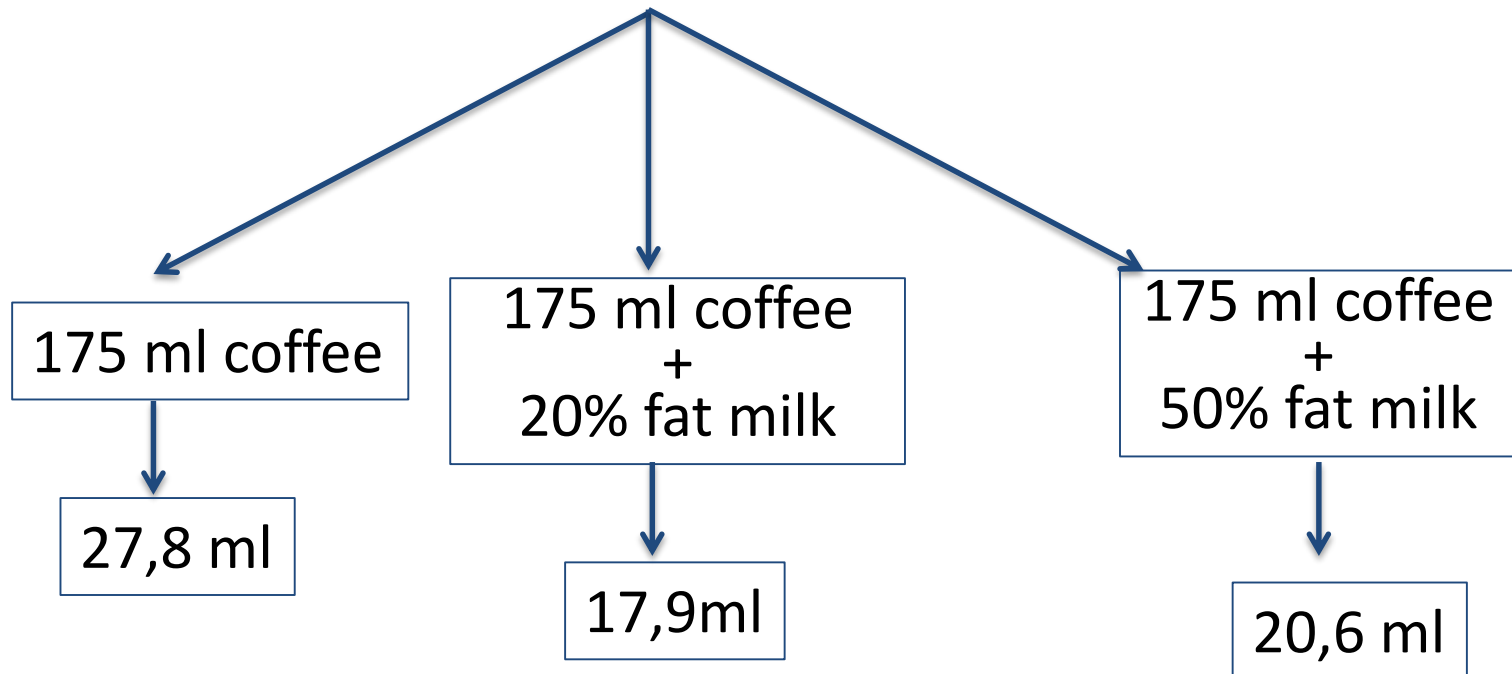
without risk ( including diabetics)  
Benefit: confort, ↘ Insulin resistance

# Perioperative fasting: Milk ?

In every recommendation, milk, is considered as a solid

Black or white coffee before anaesthesia? Gastric volume measured by MRI  
(Birgit Larsen *EJA 2016*)

32 participants: 6 h solid food and 2 h before MRI examination gastric volume



# Perioperative fasting

## Chewing gum

Chewing gum in the preoperative fasting period: an analysis of de-identified incidents reported to webAIRS.

Shanmugam S, *Anaesth Intensive Care*, 2016

No risk of pulmonary aspiration

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## The last cigarette

No risk of pulmonary aspiration

Effect of acute cigarette smoking on gastric contents in regular smoker volunteers. A prospective randomized cross-over study.

Lazaar S, *BJA* 2015

US measurement antral section: control and after 2 cigarettes smoking

The variation on gastric contents rates in antral at :

0-30'

0-60'

0-90'

} No difference

# Perioperative fasting and emergency

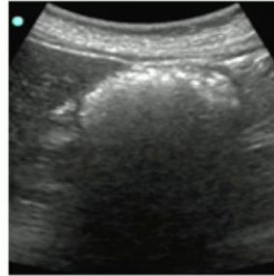
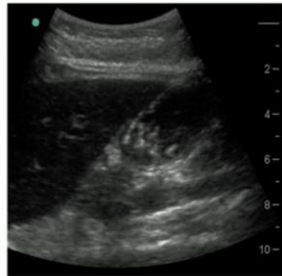
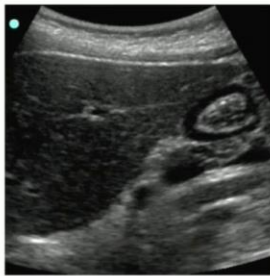
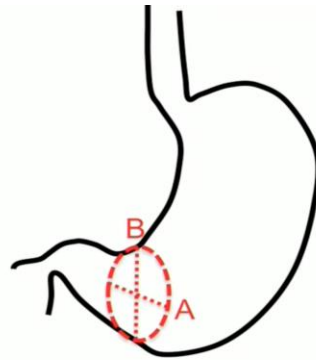
No recommendation

Ultrasound assessment of the gastric contents for the guidance of the anaesthetic strategy in infants with hypertrophic pyloric stenosis: a prospective cohort study.

Gagey AC, *BJA* 2016

How may a mathematical model using ultrasound measurement of antral area be predictive of the gastric volume?

Bouvet I, *Paediatr Anaesth* 2015



# Premedication ?

## Effect of Sedative Premedication on Patient Experience After General Anesthesia: A Randomized Clinical Trial

Axel Maurice-Szamburski , *JAMA 2015*

Table 2. Primary Outcome Comparisons for the PremedX Study

	EVAN-G Score, Mean (95% CI) <sup>a</sup>			P Value			P Value <sup>c</sup>	
	Lorazepam	No Premedication	Placebo	ANOVA	Adjusted ANOVA <sup>b</sup>	R <sup>2</sup>	Lorazepam vs No Premedication	Lorazepam vs Placebo
<b>Whole Population</b>								
No. of patients	330	319	322					
Attention	74 (72-76)	77 (74-79)	75 (72-77)	.27	.12	0.03	.09	.77
Information	64 (61-66)	65 (63-67)	64 (62-67)	.54	.17	0.03	.74	.99
Privacy	67 (65-70)	68 (66-70)	66 (64-68)	.50	.17	0.04	.86	.17
Pain	68 (66-70)	66 (63-68)	63 (60-65)	.01	.02	0.10	.02	.001
Discomfort	83 (81-85)	81 (78-83)	81 (79-83)	.33	.14	0.09	.01	.21
Waiting	74 (71-77)	80 (77-83)	78 (75-81)	.01	.02	0.04	.01	.07
Global index <sup>d</sup>	<b>72 (70-73)</b>	<b>73 (71-74)</b>	<b>71 (70-73)</b>	.38	.15	0.07	.91	.30





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	Lorazepam	No Premedication	Placebo	ANOVA	Adjusted ANOVA <sup>b</sup>	R <sup>2</sup>	Lorazepam vs No Premedication	Lorazepam vs Placebo
<b>Anxious Patients<sup>a</sup></b>								
No. of patients	87	57	87					
Attention	69 (64-74)	80 (76-85)	79 (75-83)	.001	.005	0.18	.007	.001
Information	60 (56-65)	66 (61-71)	62 (58-66)	.26	.12	0.08	.67	.71
Privacy	66 (62-70)	67 (62-73)	65 (61-69)	.79	.23	0.12	.79	.50
Pain	65 (60-69)	68 (62-74)	56 (51-61)	.003	.008	0.23	.77	.01
Discomfort	77 (73-82)	79 (75-84)	78 (75-82)	.83	.23	0.12	.90	.67
Waiting	73 (67-79)	76 (69-83)	80 (75-85)	.23	.12	0.13	.40	.02
Global index <sup>d</sup>	<b>68 (65-72)</b>	<b>73 (69-77)</b>	<b>70 (67-72)</b>	.18	.12	0.16	.39	.35

**Global Index : « Evaluation du vécu de l'Anesthésie Générale » (EVAN-G score)**

**Anxious patients : APAIS score  $\geq 11$**

# Premedication ?

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Axel Maurice-Szamburski , *JAMA* 2015

Table 3. Secondary Outcomes of the PremedX Study

	Lorazepam (n = 330)	No Premedication (n = 319)	Placebo (n = 322)	P Value for Lorazepam vs No Premedication	$\chi^2$	P Value for Lorazepam vs Placebo
<b>Operating Room Arrival</b>						
Visual analog scale score, mean (95% CI)						
Quality of conditioning	76 (74 to 78)	74 (71 to 76)	73 (70 to 75)	.26		.09
Well-being	67 (64 to 69)	64 (61 to 67)	62 (59 to 65)	.38		.06
Anxiety	35 (32 to 38)	38 (35 to 41)	44 (40 to 47)	.41		.001
<b>Postoperative Day 1 Outcomes</b>						
Amnesia, No. (%)	79 (24)	18 (6)	18 (6)	<.001		<.001
Change in visual analog scale score, mean (95% CI) <sup>c</sup>						
Pain	-8.0 (-11.8 to 4.3)	-6.6 (-10.7 to 2.6)	-7.8 (-11.7 to 3.9)	.88		.99
Quality of sleep	6.4 (2.5 to 10.3)	18.1 (13.9 to 22.3)	17.8 (13.6 to 22.0)	<.001		.001
Well-being	3.9 (0.5 to 7.3)	5.8 (2.7 to 8.9)	4.1 (0.9 to 7.4)	.72		.99

# Premedication ?

Effect of Sedative Premedication on Patient Experience After General Anesthesia: A Randomized Clinical Trial

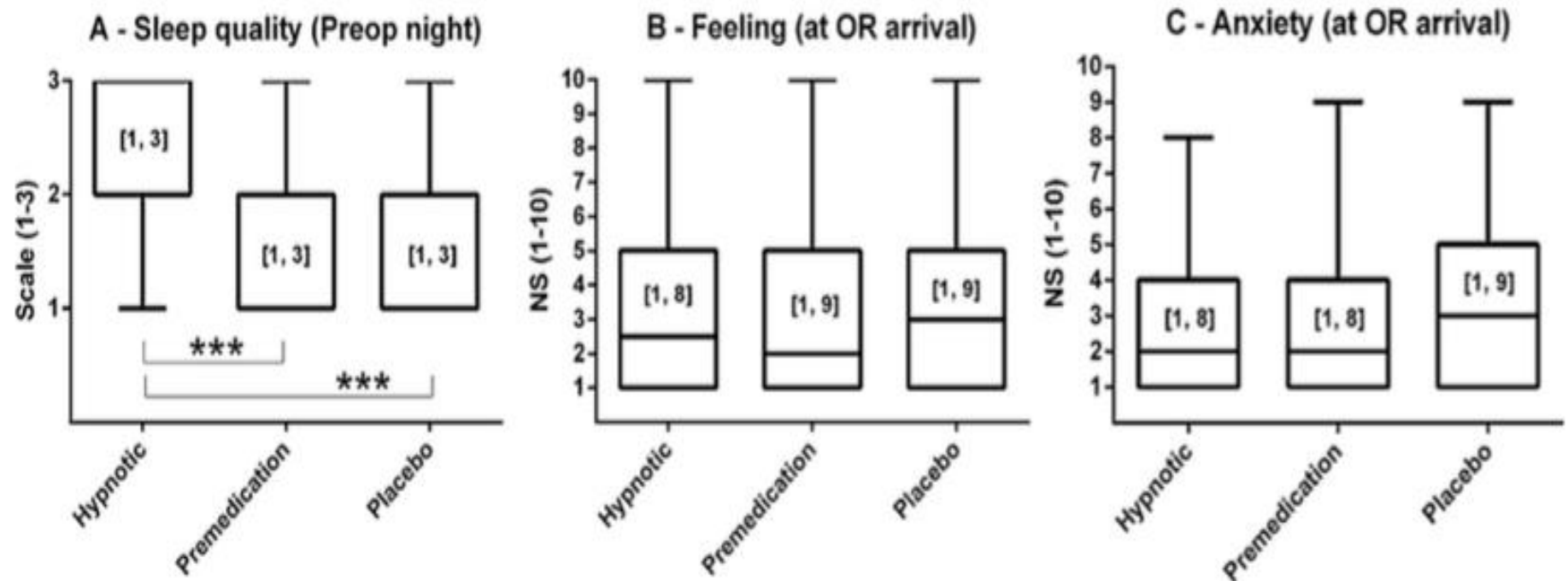
Axel Maurice-Szamburski , *JAMA 2015*

Conclusion: These findings suggest a lack of benefit with routine use of lorazepam as sedative premedication in patients undergoing general anesthesia.

# Premedication ?

Sedative premedication before surgery – A multicentre randomized study versus placebo.

Beydon L, *Anaesth Crit Care Pain Med* 2015

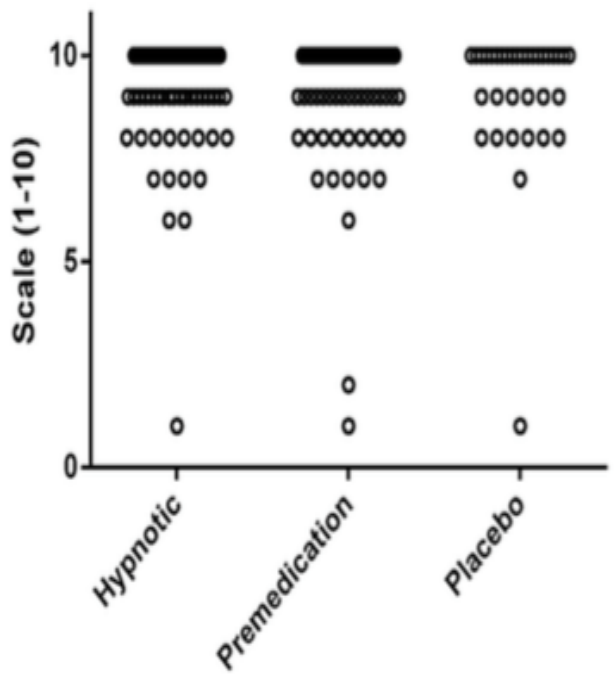


# Premedication ?

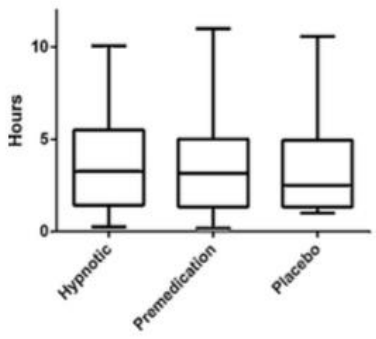
Sedative premedication before surgery – A multicentre randomized study versus placebo.

Beydon L, *Anaesth Crit Care Pain Med* 2015

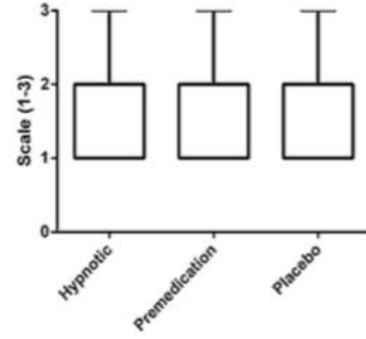
Quality of reception and information



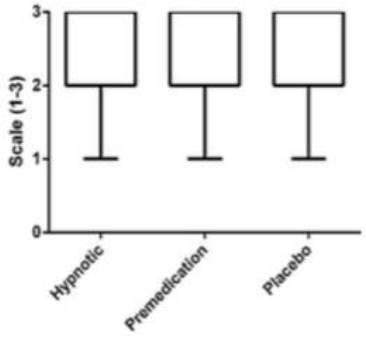
a A - Waiting time before operation (from 7 AM)



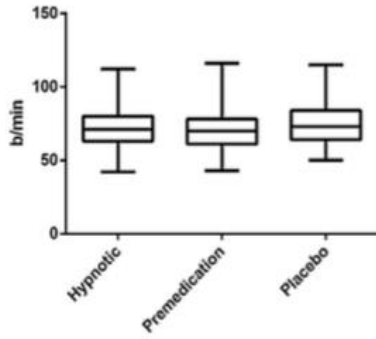
B - Cold sensation



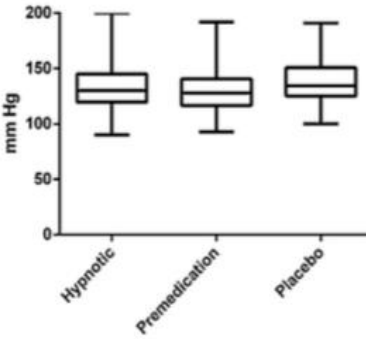
C - Appearance of veins when inserting a venous access



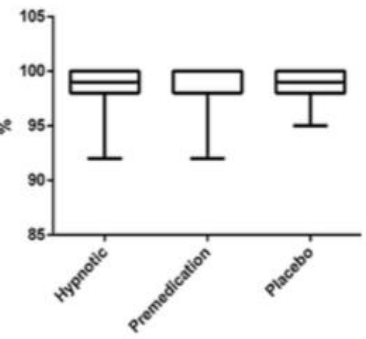
b A - Heart rate



B - Systolic arterial pressure



C - SpO2



# Premedication ?

Sedative premedication before surgery – A multicentre randomized study versus placebo.

Beydon L, *Anaesth Crit Care Pain Med* 2015

Conclusion: Our results suggest the need to reconsider the use of premedication before surgery in non-ambulatory conditions, especially when sufficient information and preoperative time has been allocated to patients.

# Premedication and Pregabalin

- Significant reduction in opioid consumption after surgery and a significant reduction in pain scores.
- The impact on opioid consumption seemed to be more pronounced, while the reduction in pain scores was only modest.
- The analgesic effect of pregabalin seemed to be associated with much lower doses than previously reported (100-300mg).
- There was no difference in acute pain outcomes between single and multiple dosing.
- Neuropathic pain **might** be reduced with pregabalin, but available data are sparse.
- No definitive conclusion regarding pre-operative anxiety.
- Sedation, dizziness and visual disturbance occurred more commonly in pregabalin-treated patients.

# Premedication and Hydroxyzine



INFORMATIONS  
SÉCURITÉ PATIENTS

INFORMATION TRANSMISE SOUS L'AUTORITE DE L'ANSM

## Lettre aux professionnels de santé

Avril 2015

**Hydroxyzine (Atarax et spécialités génériques) – Nouvelles restrictions destinées à minimiser davantage le risque connu d'allongement de l'intervalle QT**

- Hydroxyzine cause QT/QTc prolongation .... suspected to increase the risk of torsade de pointes.
- Hydroxyzine is not recommended in the elderly patient
- The combination of hydroxyzine with drugs that may induce bradycardia or hypokalemia should be a use caution



# Premedication ?

## Conclusion

Premedication : not routine, anymore !

Anxiety is a physiologic reaction

Hydoxyzine is not recommended

Benefit of pregabalin is still not clear

# Preoperative cutaneous preparation

Preoperative management of infectious risk.

French Recommendations *Société Française D'hygiène hospitalière 2013*

## Preoperative shower recommendation

- At least one preoperative shower is recommended
- No recommendation for the soap (antiseptic or usual)
- No recommendation for the number of showers
- No recommendation for the time
- No recommendation for shampoo (except scalp surgery)
- No recommendation for the shampoo (antiseptic or usual)
- No recommendation for the systematic removal of nail polish
- It is recommended to remove the nail polish when the finger (hand or foot) is in the operative field.

# Preoperative cutaneous preparation

## Preoperative management of hair

- It is not recommended to practice hair removal routinely (shaving mechanical, mowing or chemical depilation)
- if hair removal is performed, it is recommended to focus on mowing.
- No recommendation can be issued for the period of depilation (before or day of surgery).

## Preoperative recommendation on antiseptic preoperative

- no recommendation can be issued for cleansing skin before performing antiseptics on an unsullied skin.
- It is recommended to perform a cleansing skin on a soiled skin.

# CONCLUSION



**YESTERDAY**



**TODAY**