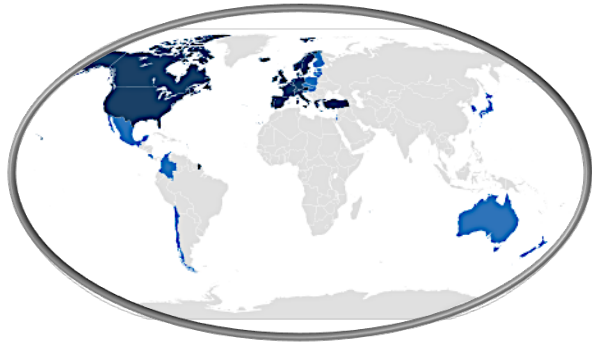


# Sedation at the end of life in patients treated by Paediatric Palliative Care Teams. Multicentre observational study

Peláez Cantero MJ, Santos Herraiz P, Rubio Ortega L, Gili -T, González García M, Parra Plantagenet-Whyte F



# Introduction



The majority of children and adolescents die in **hospitals**



Withdraw technology support

Limitation of therapeutic effort

**REMOVE**



Palliative sedation

# Introduction

## Palliative sedation

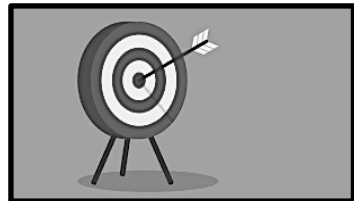
Resort measurements which are used at the end of life to relieve refractory distress.



Administration of  
sedative  
medications



Induce a state of  
decreased or absent  
awareness



The goal is the relief of suffering to  
terminally ill patients

# Introduction

**Sedation** is used in **paediatrics palliative care** in several settings:

- ① • Transient sedation for noxious procedures
- ② • Sedation used in end of life weaning from ventilator support
- ③ • Sedation in the management of refractory symptoms at the end of life
- ④ • Emergency sedation
- ⑤ • Respite sedation
- ⑥ • Sedation for psychological or existential suffering

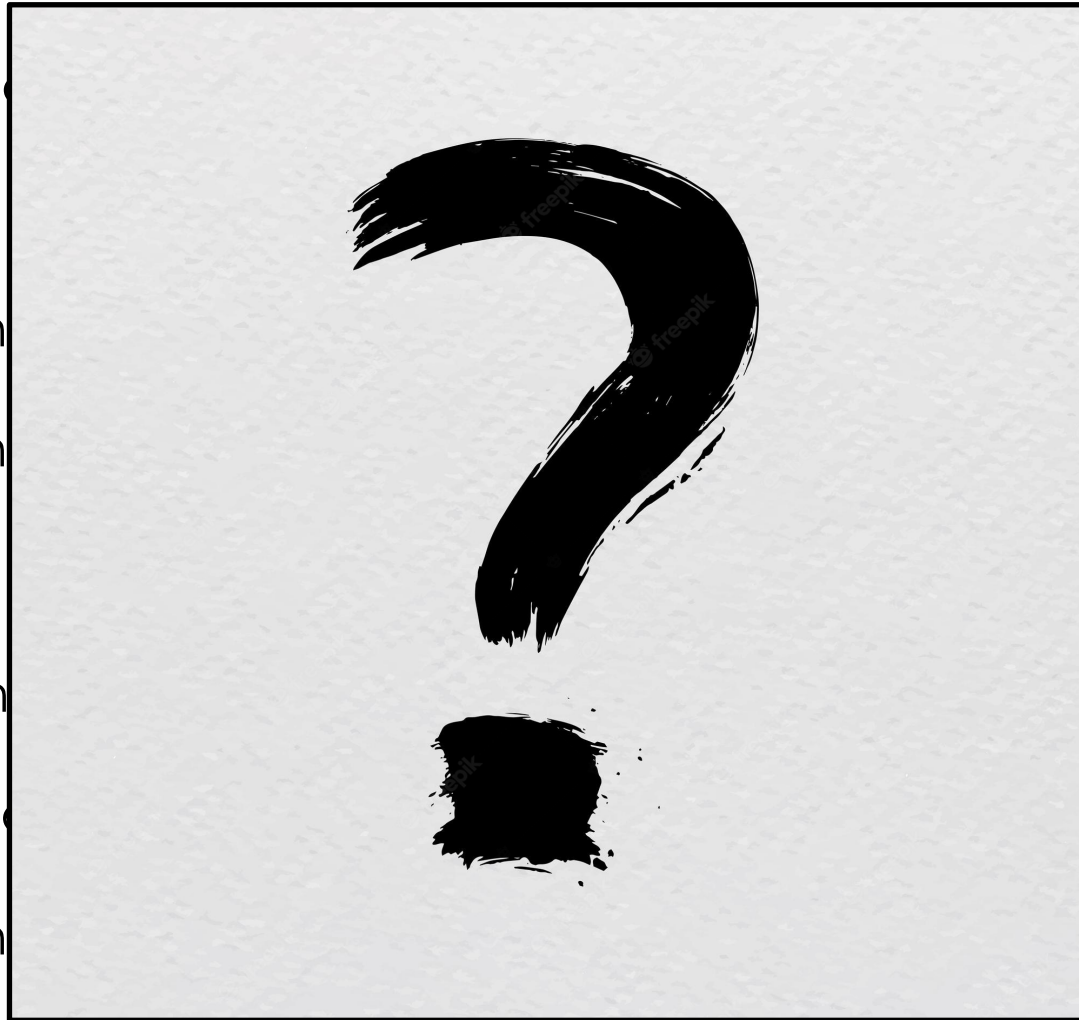


European Association for Palliative Care (EAPC) recommended framework for the use of sedation in palliative care. *Palliative Medicine*. 2009; 23(7), 581–593.

# Introduction

**Sedation** in use

- ① • Transient
- ② • Sedation
- ③ • Sedation
- ④ • Emergen
- ⑤ • Respite s
- ⑥ • Sedation



eral settings:

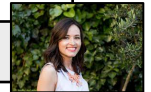
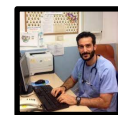
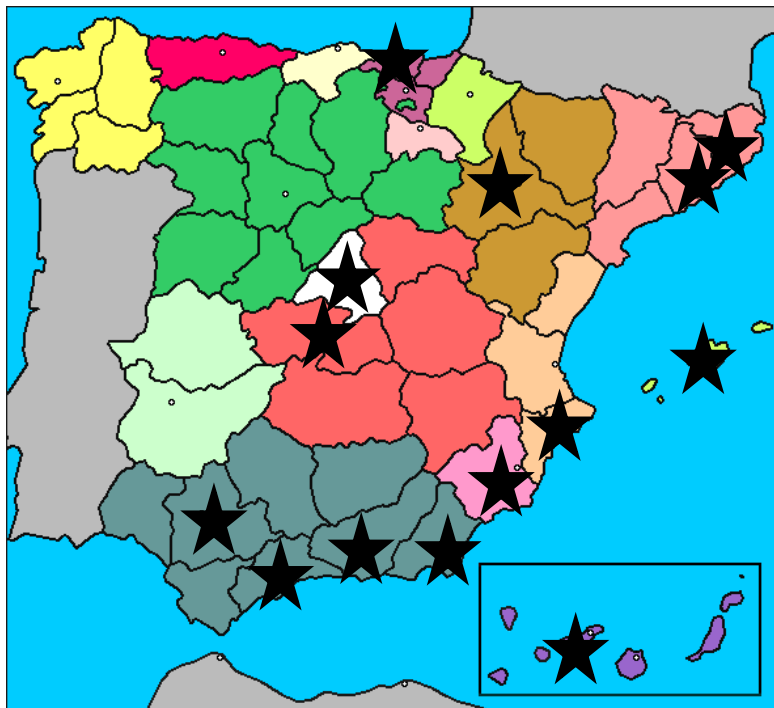
upport

at the end

# Patients and Methods

2019

Multicentre, ambispective, descriptive and analytical study  
January 1 → December 31



Hospital San Juan de Dios de Barcelona

Hospital Universitario Infantil Niño Jesús de Madrid

Hospital Regional Universitario de Málaga

Hospital Universitario Virgen del Rocío de Sevilla

Hospital Universitario Son Espases de Mallorca

Hospital Universitario Virgen de las Nieves de Granada

Hospital Universitario de Cruces de Bilbao

Hospital Universitario Miguel Servet de Zaragoza

Hospital Clínico Universitario Virgen de la Arrixaca de Murcia

Hospital Universitario Torrecárdenas de Almería

Hospital Universitario Parc Taulí de Sabadell

Complejo Virgen de la Salud de Toledo

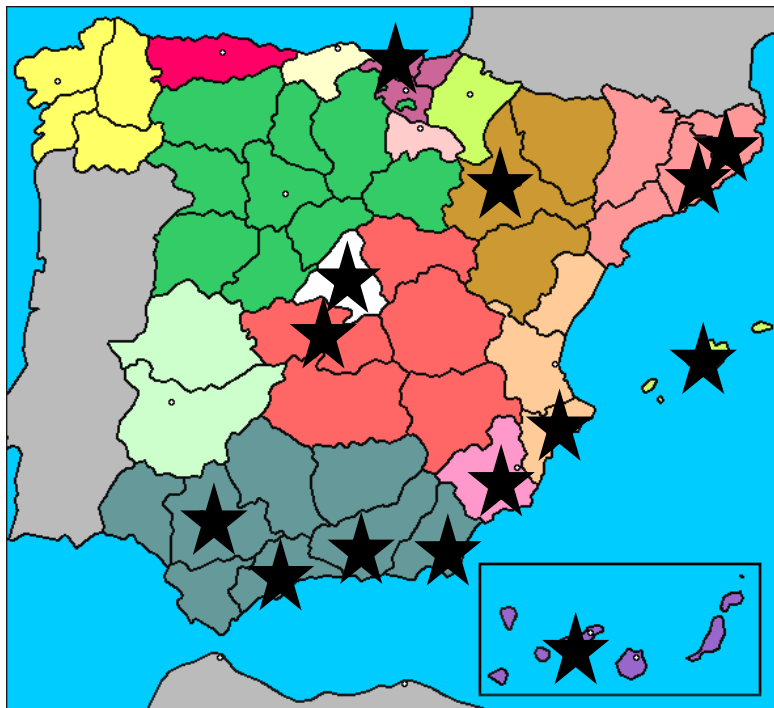
Hospital General Universitario de Alicante

Hospital Universitario Nuestra Señora de Candelaria de Tenerife

# Patients and Methods

2019

Multicentre, ambispective, descriptive and analytical study  
January 1 → December 31



Every patient who was managed by de paediatric palliative care team and died under their care

Review of health records



# Results: descriptive



Hospital (Year of creation)	Number of patients treated by Paediatric Palliative Care team 2019 N	Number of deceased patients treated by the Paediatric Palliative Care team in 2019 N	Mortality rate 2019 (%)	Number of patients included in the study N(%)
Hospital San Juan de Dios de Barcelona (1992)	321	59	18,3%	42 (25,6%)
Hospital Universitario Infantil Niño Jesús de Madrid (2008)	127	40	31,4%	40 (24,4%)
Hospital Regional Universitario de Málaga (1999)	59	17	28,8%	17 (10,4%)
Hospital Universitario Virgen del Rocío de Sevilla (2016)	63	16	25,3%	16 (9,8%)
Hospital Universitario Son Espases de Mallorca (2013)	79	9	11,3%	9 (5,5%)
Hospital Universitario Virgen de las Nieves de Granada (2018)	50	8	16%	8 (4,9%)
Hospital Universitario de Cruces de Bilbao (2012)	52	6	11,5%	6 (3,7%)
Hospital Universitario Miguel Servet de Zaragoza (2017)	87	6	6,8%	6 (3,7%)
Hospital Clínico Universitario Virgen de la Arrixaca de Murcia (2009)	35	5	14,2%	5 (3,0%)
Hospital Universitario Torrecárdenas de Almería (2014)	34	5	14,7%	5 (3,0%)
Hospital Universitario Parc Taulí de Sabadell (2016)	50	3	6%	3 (1,8%)
Complejo Virgen de la Salud de Toledo (2015)	58	7	12%	3 (1,8%)
Hospital General Universitario de Alicante (2008)	96	3	3,1%	3 (1,8%)
Hospital Universitario Nuestra Señora de Candelaria de Tenerife (2018)	35	1	2,8%	1 (0,6%)

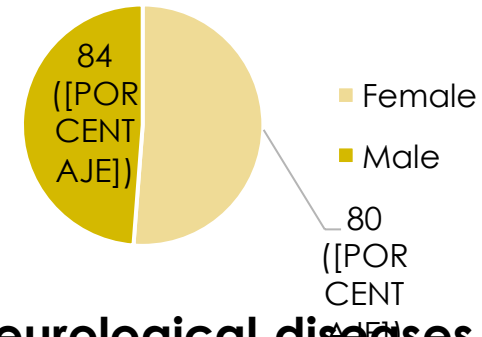
1164 → 185 13.1% (IQR 6.3) 164



# Results: descriptive



Total: 164 patients



## Underlying disease

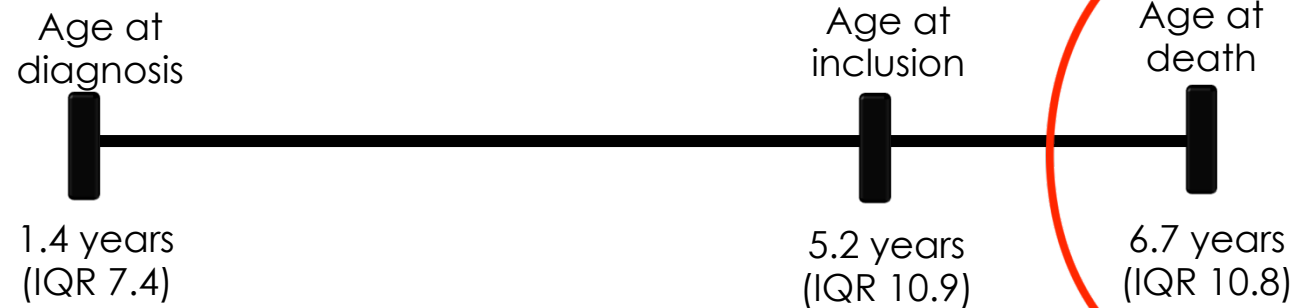
The main diagnoses in patients receiving PPC are **neurological diseases and genetic or congenital disorders** (cancer being the underlying disease in only 20% of the treated children)

Oncological	79 (48,2%)
Neurological or neuromuscular	39 (23,8%)
Metabolic	15 (9,1%)
Prematurity and neonatal	14 (8,5%)
Congenital or genetic defects	12 (7,3%)
Others	5 (3,1%)

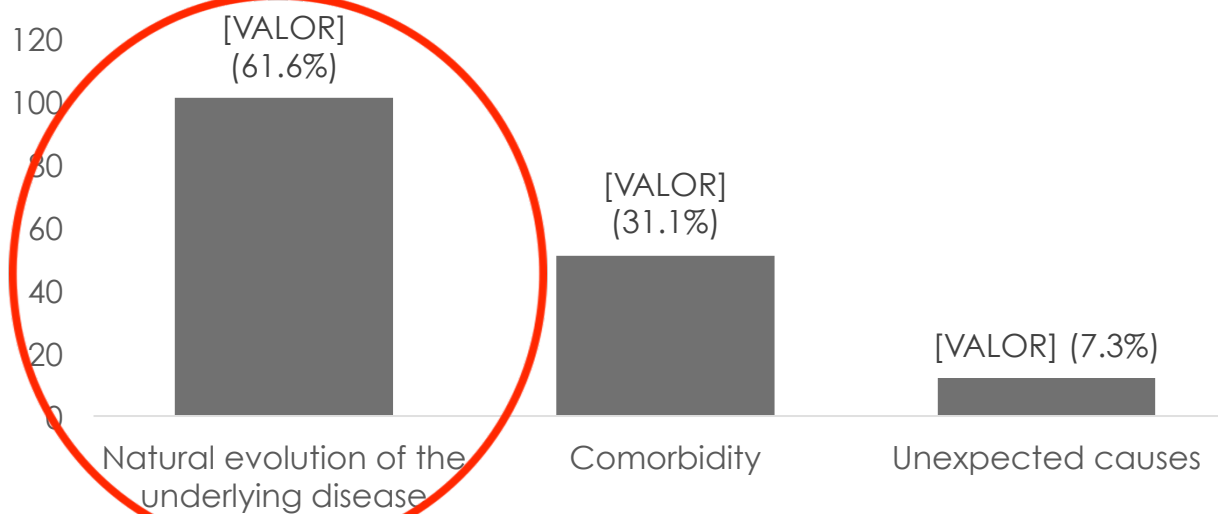
# Results: descriptive



## Time



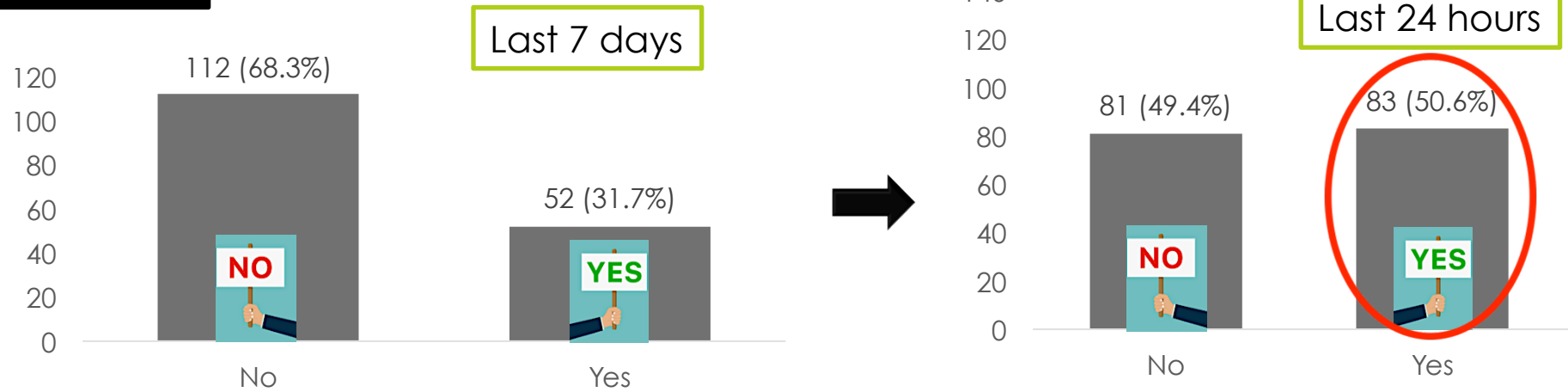
## Cause of death



# Results: descriptive

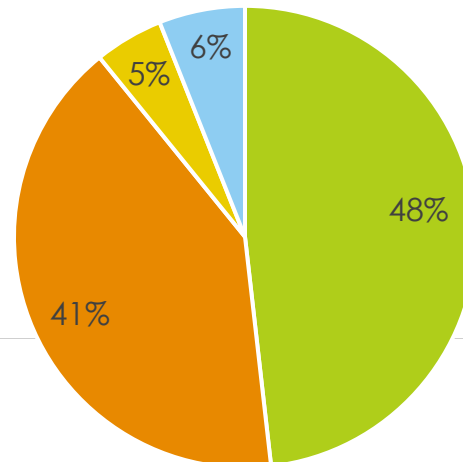


## Sedation



■ Agony situation
■ Refractory symptoms
■ Mechanic ventilation
 ■ Others

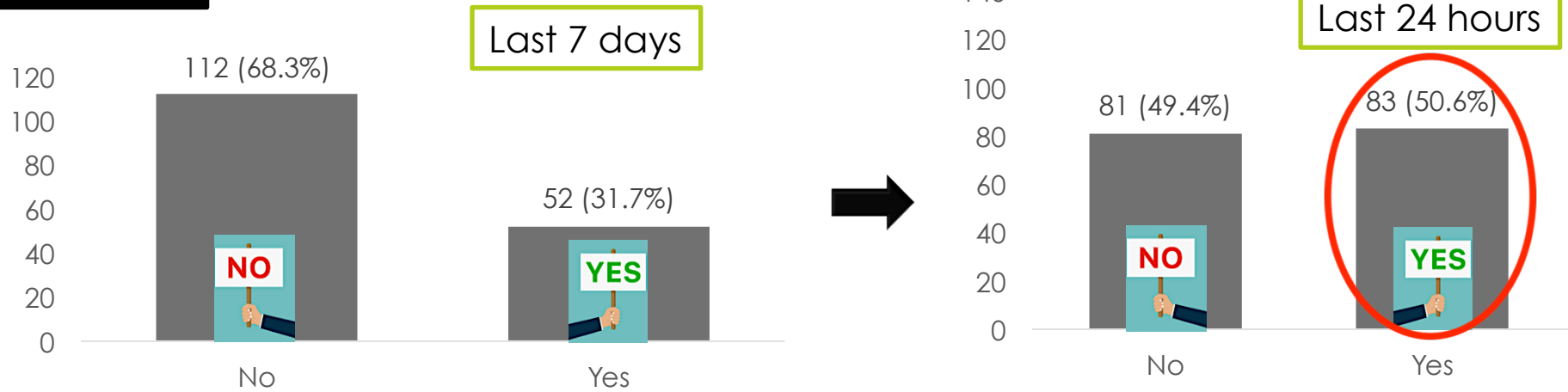
Dyspnea 9 (26.5%)  
 Pain 8 (24.2%)  
 Convulsions 7 (21.2%)



# Results: descriptive

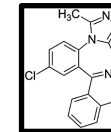
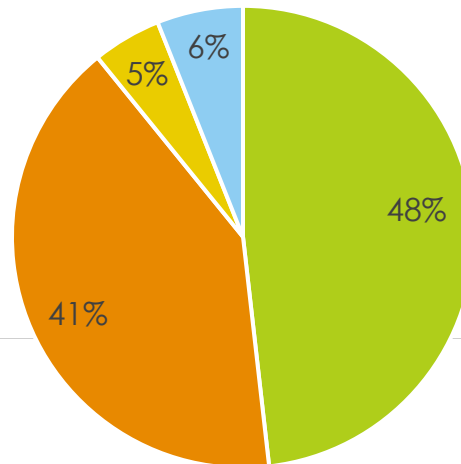


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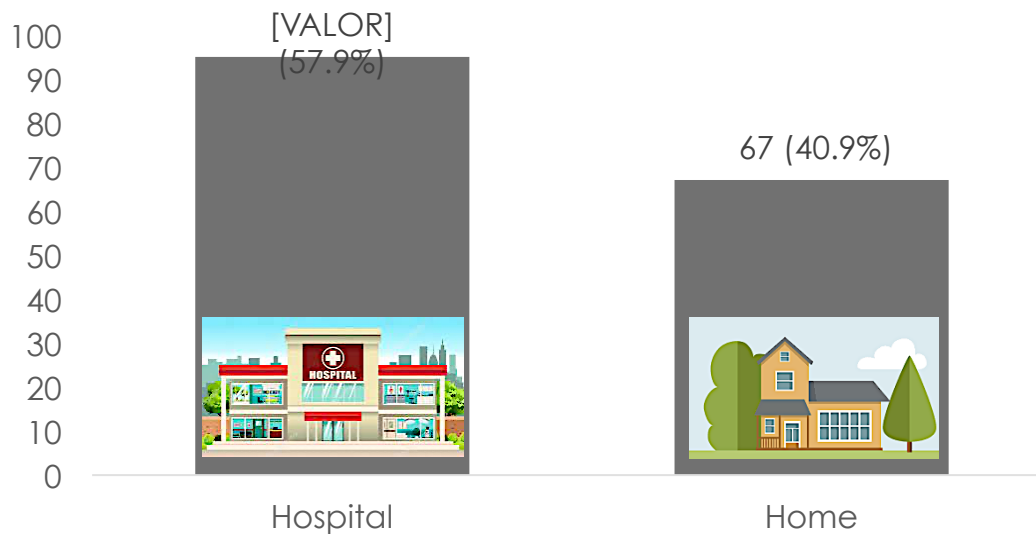


The most commonly used drug was **midazolam** in 74 (89.2%) intravenously (45, 54.2%) with a median dose of 0.1 mg/kg/h (IQR 0.2).

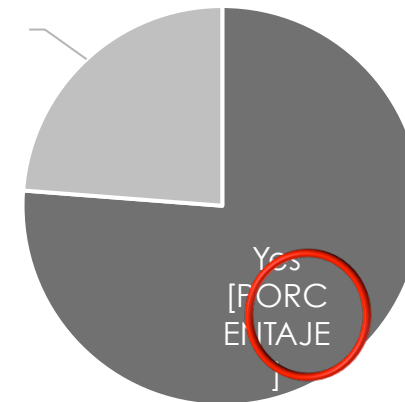
# Results: descriptive



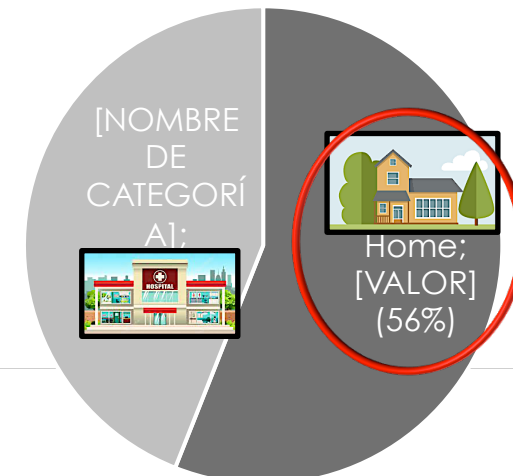
## Place of death



## Talk about preferences



	Achieve preferences	No achieve preferences
Talk preferences	119 (95.2%)	6 (4.8%)



# Data analysis



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# Results: analysis



Paediatric palliative teams with more than 5 years of experience sedate less

## Age team

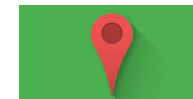


	Over 5 years	Less 5 years
<b>Palliative sedation</b>		
No	66 (54.5%)	14 (33.3%)
Yes	55 (45.5%)	28 (66.7%)

Z = 5.6; p 0.018

Children who die in the hospital are often more sedated than those who dying at home

## Place of death



	Home	Hospital
<b>Palliative sedation</b>		
No	44 (66.7%)	36 (37.1%)
Yes	22 (33.3%)	61 (62.9%)

Z = 13.7; p < 0.001

# Results: analysis



Verbalizing preferences regarding the place of death decreases the probability of sedation

Verbalizing preferences **talk**

	No	Si
Palliative sedation		
No	12 (30.8%)	68 (54.8%)
Yes	27 (69.2%)	56 (45.2%)

$Z = 6.9; p 0.009$

Families where it had not been verbalized it is sedation in end of life was more frequent

	Agony situation	Refractory symptoms
Verbalizing preferences		
No	16 (72.7%)	6 (27.3%)
Yes	24 (42.2%)	28 (53.8%)

**talk**

$Z = 4.4; p 0.036$



# Conclusions

We established incidence, indication, refractory symptoms and drugs related to sedation at the end of life.

Sedation is less likely to take place in the home, which may indicate less invasiveness at the end of life in this setting.

Our study innovates by considering the age of every PPCT and anticipating the place of death with the patient's families with the need for sedation.

The results clearly highlight the need to count on highly trained professionals to care for patients under these circumstances.

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# THE END

**ANOTHER  
POSSIBLE  
WAY**

# Conclusions



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# Conclusions



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The End

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