

**AN OBSERVATIONAL STUDY OF THE
PREVALENCE OF VIVID DREAMS,
NIGHTMARES AND SLEEP/NIGHT
TERRORS IN PATIENTS WITH ADVANCED
CANCER AND THEIR ASSOCIATION WITH
OPIOID ANALGESICS**

Dr Shuchita D. Patel
Clinical Research Fellow in Palliative Medicine
BMedSci BMBS MSc MRCP(UK)

Introduction

- **Nightmares:**

“Frightening dreams that usually awaken the sleeper from REM sleep” [ICSD-2nd edition, 2001]

- Lifetime prevalence: 66.2% [Bjorvatn et al., 2010]

- Point Prevalence: 19.4% [Bjorvatn et al., 2010]

Introduction

Vivid dreams:

“usually clear, long dreams with elaborate scenario[s] and possibly strong emotions that [occur] only when sleeping and [are] acutely remembered” [Cochen et al., 2005]

Sleep/Night terrors:

“a sudden arousal from slow-wave sleep with a piercing scream or cry, accompanied by autonomic and behavioral manifestations of intense fear” [ICSD-2nd edition, 2001]

Objectives

Primary Objective:

To determine the prevalence of vivid dreams, nightmares and sleep/night terrors in patients with advanced cancer

Objectives

Secondary objectives:

1. To determine the **clinical features** of **nightmares**
2. To determine the **relationship** between these phenomena and **patient demographics, cancer diagnosis**, other diagnoses and **ECOG-PS**
3. To determine the **relationship** between these phenomena **and physical, psychological symptoms and other sleep problems**
4. To determine the **relationship** between these phenomena and **use of opioid analgesics** and other medication

Methods

Inclusion criteria:

- a) age \geq 18 year
- b) diagnosis of locally advanced / metastatic cancer
- c) completed primary treatment for cancer
- d) known to a specialist palliative care team

Exclusion criteria:

- a) inability to give informed consent
- b) inability to complete the study questionnaire

Methods

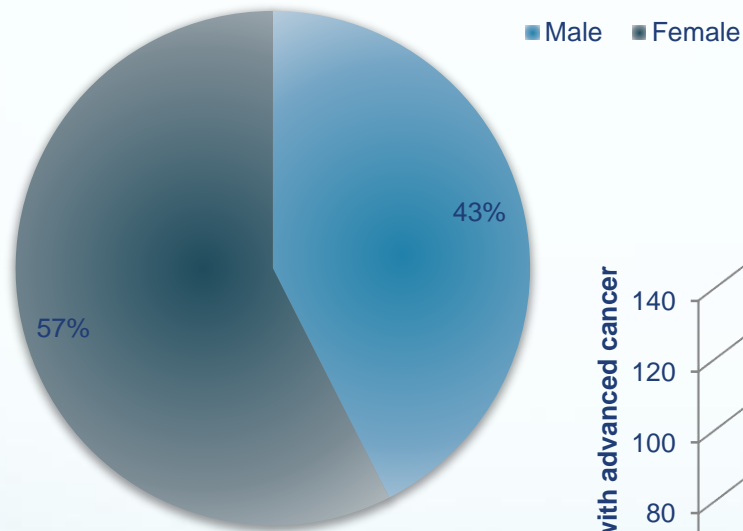
- Multicentre, prospective observational study
- Single interviews were conducted with 174 patients

Data collected on:

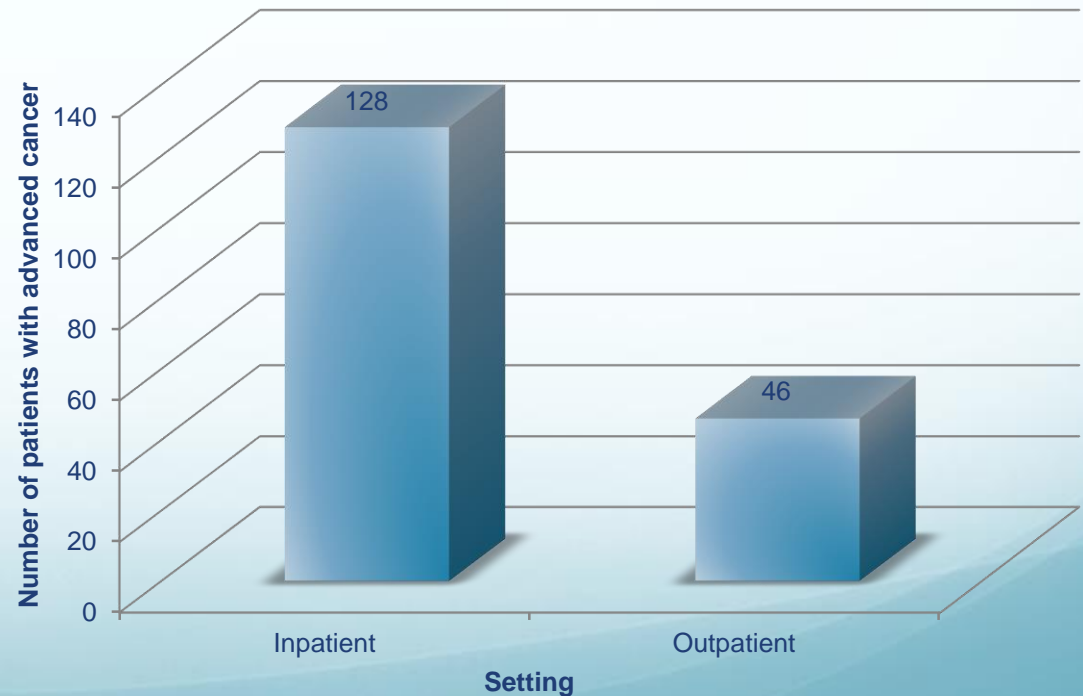
- Frequency of vivid dreams, nightmares and sleep/night terrors
- Patient's sleep quality (Pittsburgh Sleep Quality Index – PSQI)
- Physical and psychological symptoms (Memorial Symptom Assessment Scale – MSAS-SF)

Results – Participant Demographics

Gender

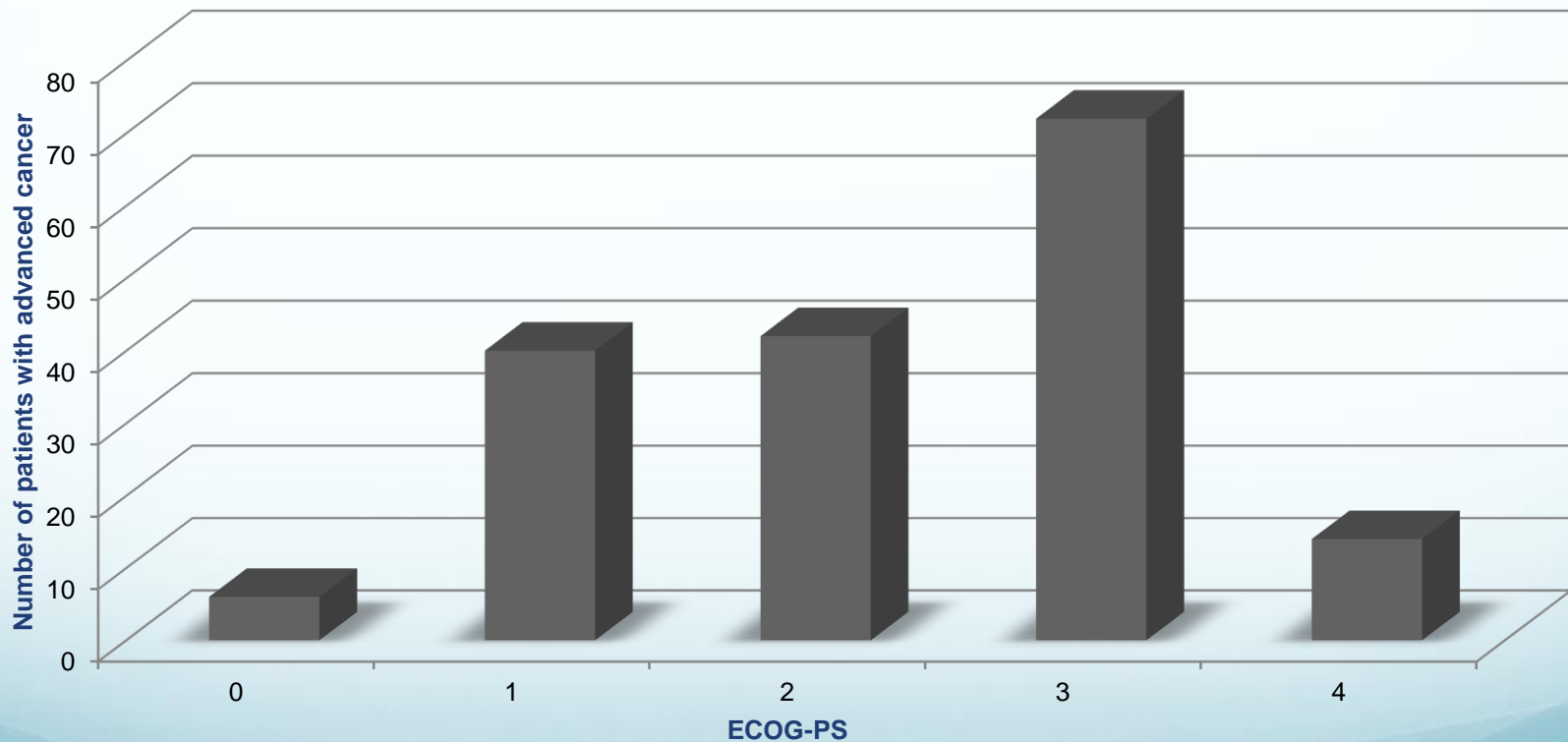


Recruitment Setting



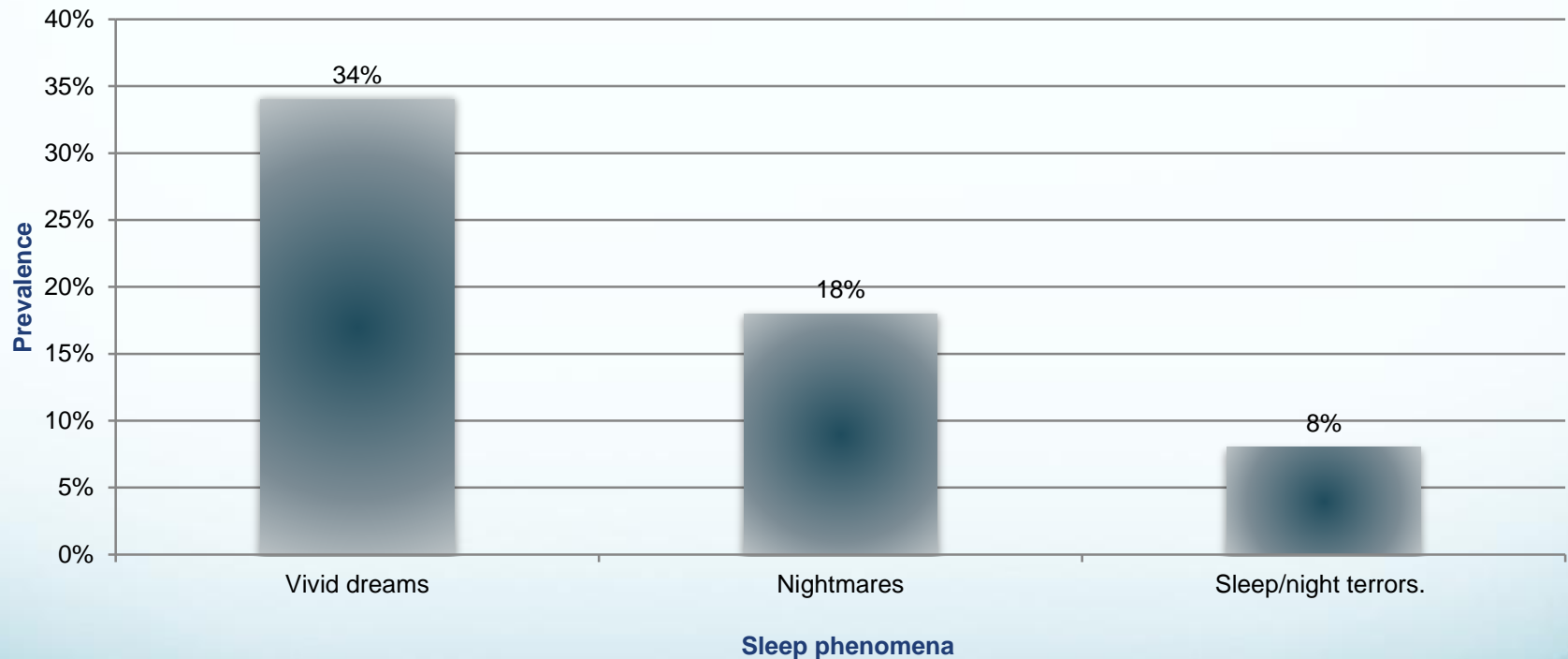
Results – Participant Demographics

Eastern Cooperative Oncology Group Performance Status (ECOG-PS) of study participants



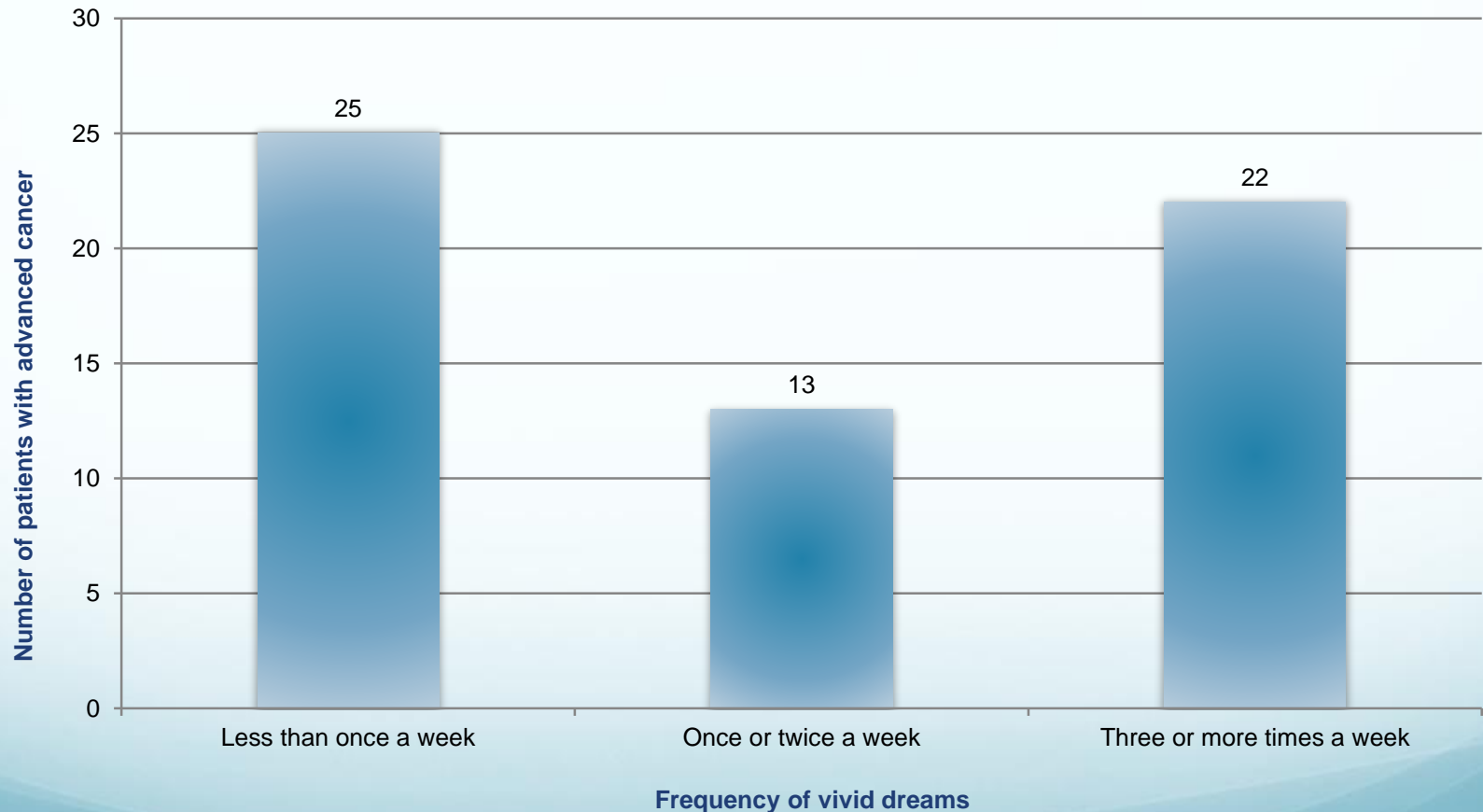
Results – Overall Prevalence

Prevalence of vivid dreams, nightmares and sleep/night terrors in advanced cancer patients



Results – Vivid Dreams

Patients with advanced cancer reporting vivid dreams



Results – Vivid Dreams

Vivid dreams were associated with:

- Younger age ($p=0.013$)
- Higher number of symptoms on the MSAS-SF ($p=0.001$)
- Higher psychological subscale score on the MSAS-SF ($p=0.028$)

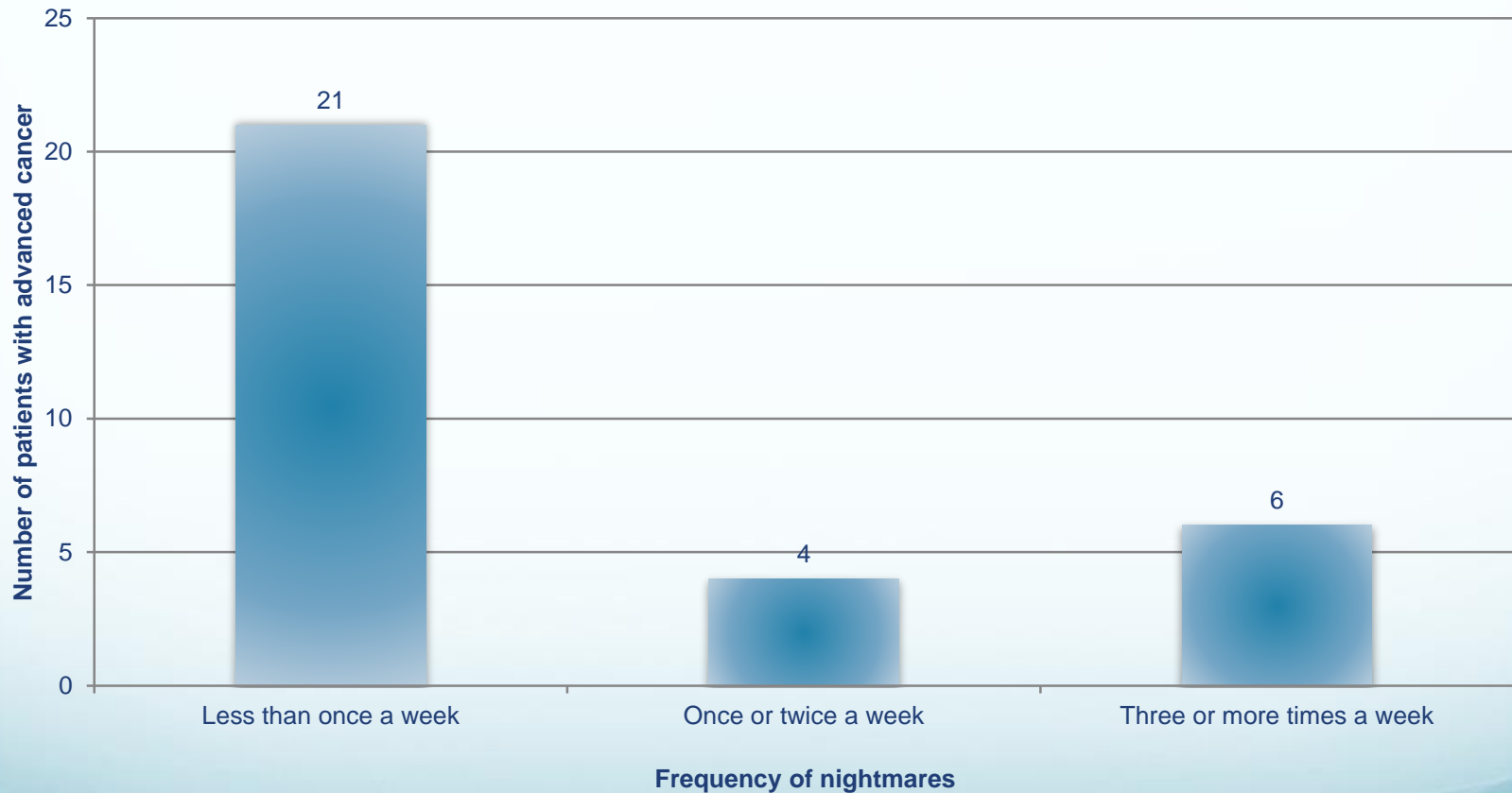
Results – Vivid Dreams

Vivid dreams were associated with:

- Poor sleep quality ($p=0.001$)
- On the PSQI components:
 - Sleep disturbance ($p<0.001$)
 - Sleep latency ($p=0.016$)
 - Day dysfunction due to sleepiness ($p=0.004$)
 - Needs medication to sleep ($p=0.008$)

Results – Nightmares

Patients with advanced cancer reporting nightmares



Results – Nightmares

Nightmares were associated with:

- Younger age ($p=0.005$)
- On the MSAS-SF:
 - Higher number of symptoms ($p<0.001$)
 - Higher physical subscale score ($p=0.023$)
 - Higher psychological subscale score ($p=0.010$)
 - Higher global distress index score ($p=0.006$)

Results – Nightmares

Nightmares were associated with:

- Poor sleep quality ($p=0.044$)
- On the PSQI components:
 - Sleep disturbance ($p=0.007$)
 - Sleep latency ($p=0.039$)
 - Day dysfunction due to sleepiness ($p < 0.001$)
 - Needs medications to sleep ($p=0.043$)

Results – Nightmares

- 12 (39%) patients were either ‘quite a bit’ or ‘very much’ distressed by nightmares
- 26 (84%) patients rated their overall sleep quality as ‘fairly bad’ or ‘very bad’

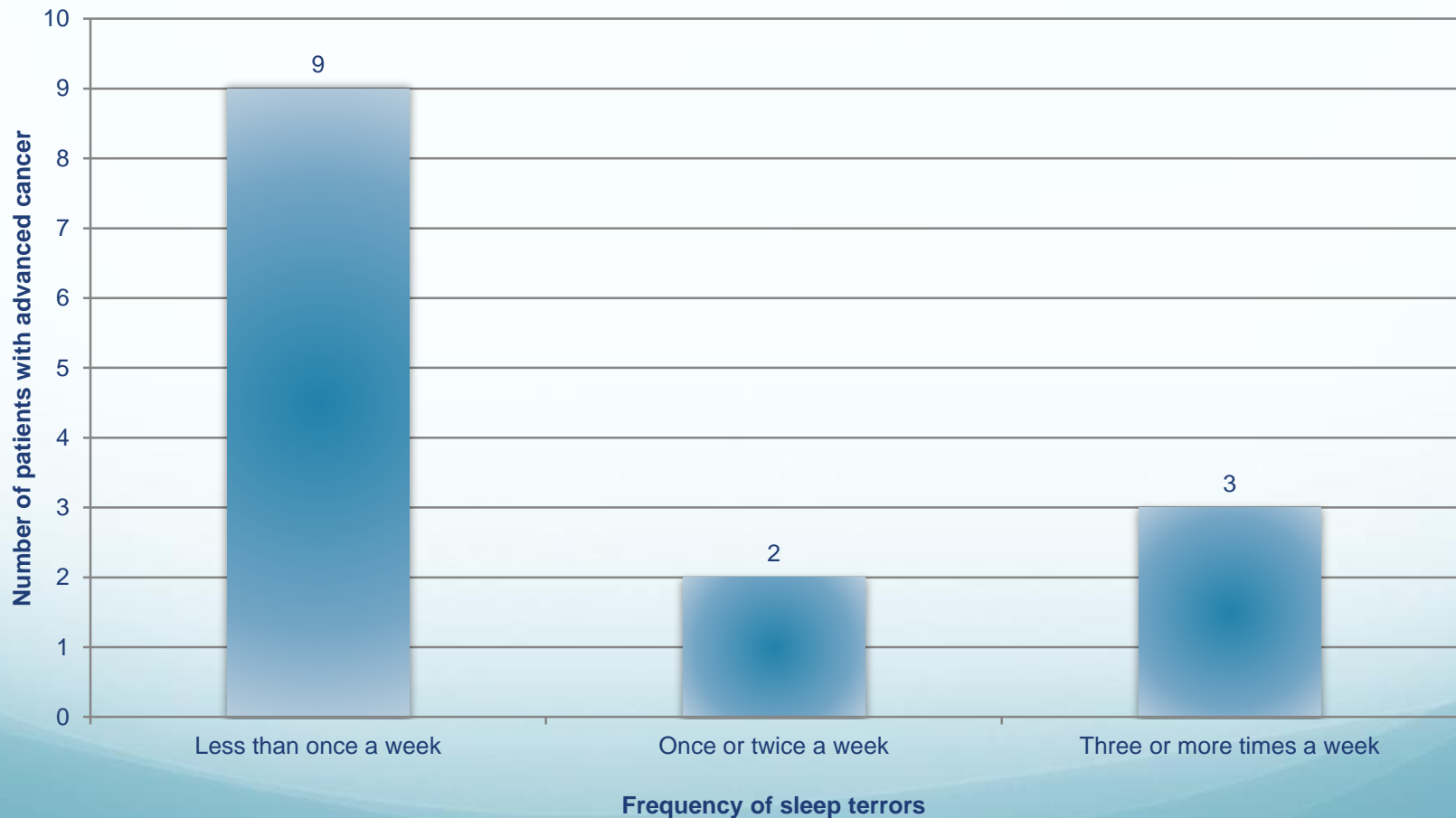
Results – Nightmares

Patients experiencing nightmares more than once a week (n=9):

- Six patients reported recurring nightmares
- Common themes:
 - Events related to their past (n=5)
 - Death & Dying (n=5)
 - Their current illness (n=4)

Results – Sleep Terrors

Patients with advanced cancer reporting sleep terrors

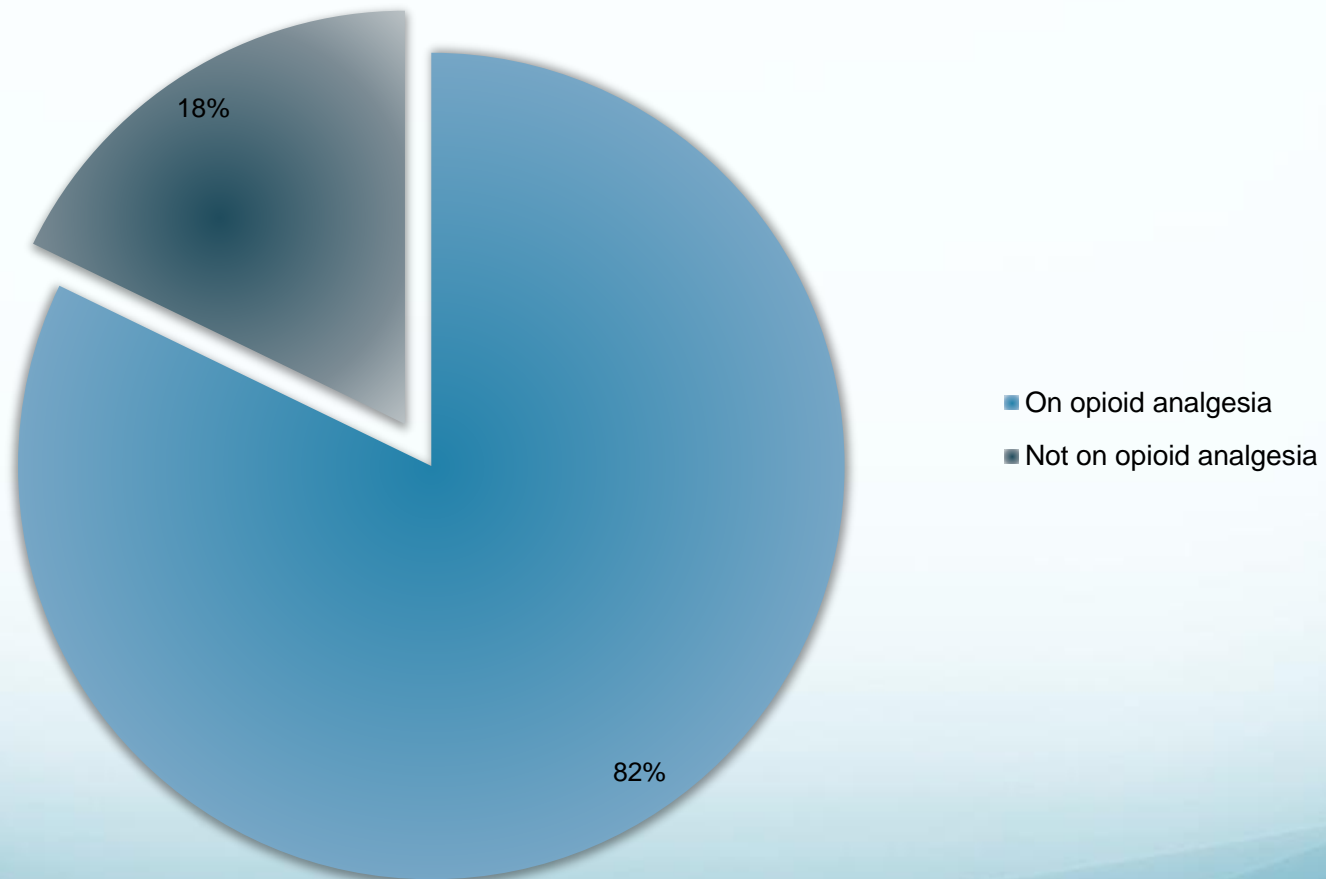


Results – Sleep Terrors

Sleep terrors were associated with:

- Higher number of symptoms on the MSAS-SF (p=0.004)
- On the PSQI components:
 - Sleep disturbance (p=0.048)
 - Day dysfunction (0.032)

Results – Patients on an opioid analgesia regimen



Results – Association with opioid analgesia

Use of opioids were **not significantly associated with:**

- Vivid dreams (p=1.000)
- Nightmares (p=0.295)
- Sleep terrors (p=1.000)

Conclusion

- Vivid dreams are relatively common in patients with advanced cancer
- Vivid dreams are primarily associated with increased psychological problems
- Nightmares and sleep/night terrors occur less frequently in patients with advanced cancer
- Occurrence of nightmares are associated with increased physical & psychological burden
- Opioids are not associated with these phenomena

