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# SEDATION PRACTICE FOR PEDIATRIC NUCLEAR MEDICINE PROCEDURES IN DENMARK

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## INTRODUCTION

Sedation for nuclear medicine investigations in children is controversial. The EANM guideline for DMSA scintigraphy states that sedation may be required in 5% of children aged 1-3 years. The objective of this study was to examine clinical practice for sedation in children undergoing nuclear medicine examinations in Denmark.

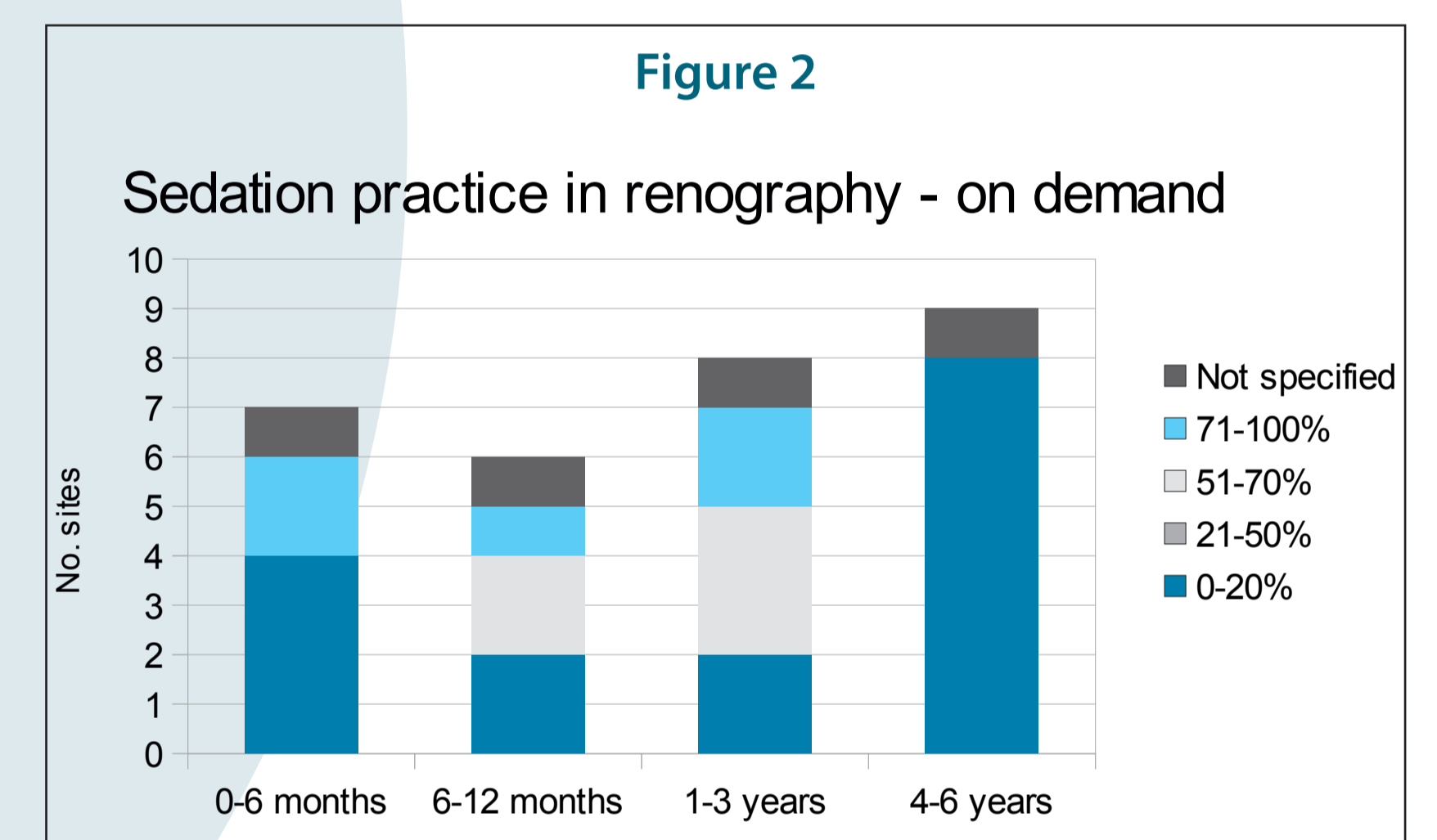
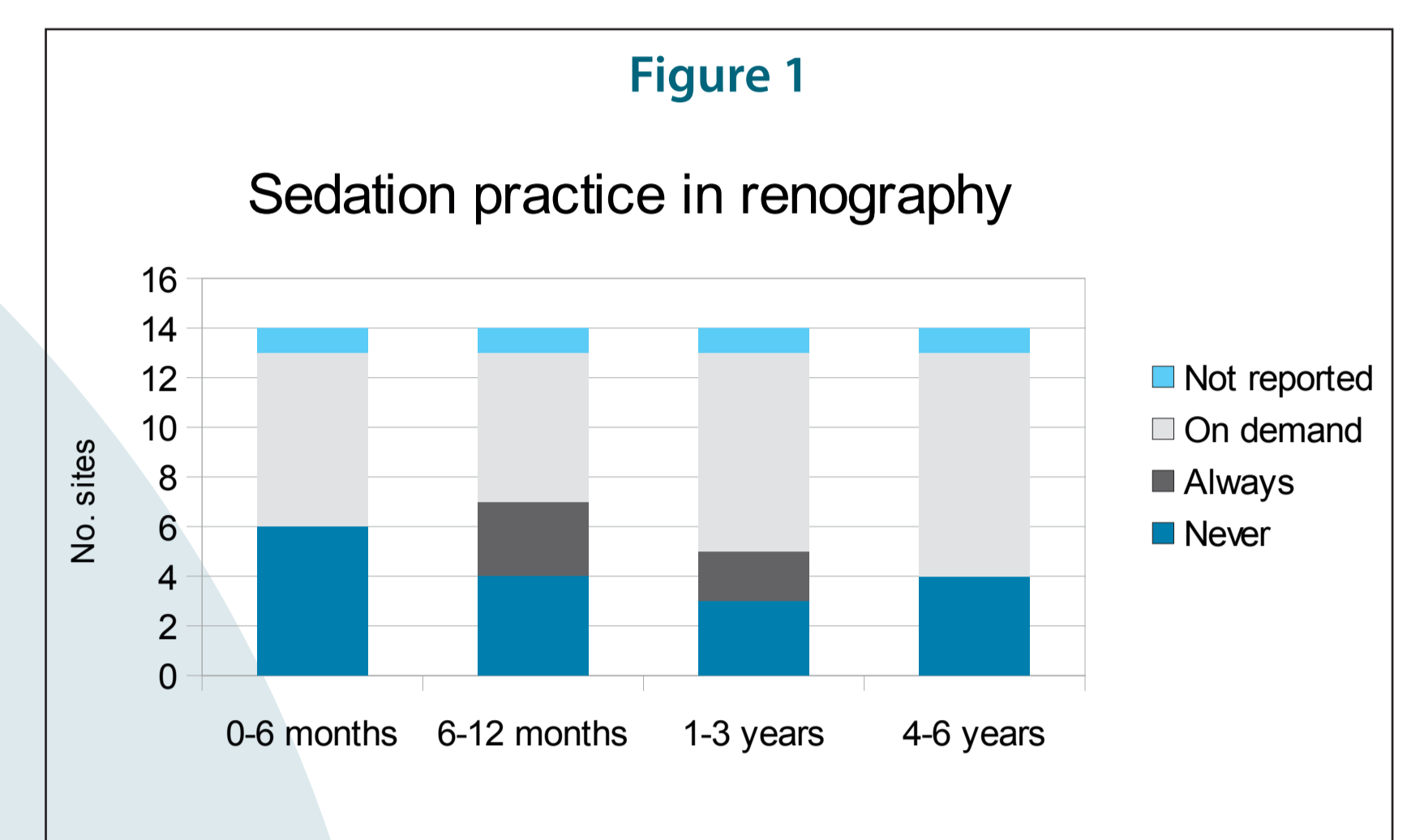
## MATERIAL AND METHODS

A questionnaire was sent to all nuclear medicine departments in Denmark in April 2013. The questionnaire collected data on pediatric nuclear medicine examinations in 2012, including sedation practice in general and the specific use of sedation for renal scintigraphy and renography.

## RESULTS

All departments returned the questionnaire (18 sites, 100% response rate). Three sites did not examine children. The number of pediatric examinations in the remaining 15 sites ranged from 20 to 1,583 (median of 191). One site referred all children requiring sedation to other clinic, thus a total of 14 sites reported to sedate children for pediatric investigations were included in the analysis.

The sedation practice per age group for renography is shown in Figure 1. Further details in how to handle 'on demand' sedation shown in Figure 2. Sedation practice for renal scintigraphy was very similar to renography (data not shown).



**Table 1:**

The pharmaceutical agents used for sedation is shown in Table 1. The most frequently used agents were benzodiazepines and barbiturate. The most common route of administration was rectal, oral, and intravenous.

TYPE OF AGENTS	NO. SITES
Benzodiazepines	5
Barbiturate	3
Chloral hydrate	1
Combinations	1
Opiate	0
Neuroleptic incl. ketamine	0
Phenothiazines	0
Other	1
None	2
Not reported	1



## CONCLUSION

The sedation practice varied considerable among Danish nuclear medicine departments. The use of sedation of children in clinical practice seemed to occur more frequently than recommended by guidelines. Increased attention on non-pharmacological sedation practice is needed.