



REGIONAL ANAESTHESIA (RA) PRACTICE IN GREECE (ESRA Hellas Report)

A Multi–Centre, Nation–Wide Survey & Review of the Current Literature

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Introduction

RA TECHNIQUES (CNBS & PNBS)

are well established surgical anaesthesia–analgesia modalities, offering multiple advantages during perioperative patient management. However, numerous inter–hospital variations, as well as inter– and intra– country differences have been described, with information on RA nationwide extent of use being sparse in Literature, at national, European or international Level.

Aim(s) of the Study

ESRA Hellas Initiative

With the aims to Assess and Document Application Rates of RA Techniques in Greece, during 2011, a **Multicenter, Nation–Wide, Retrospective, Observational Survey** was implemented, incorporating a **Cross–Sectional Study Design**, with a **Structured–Predefined Questionnaire** being emailed to 128 of the 230 existing Greek Anaesthesiology Departments of Public and Private Sector, in 2012.

Study Methodology

Setting Greek Anaesthesiology Departments

Participants: Chairmen of Anaesthesiology Departments

Intervention: Survey from March 1st to June 30th 2012

Main Outcome Measures

Primary Endpoint

- Documentation of RA extent of use in Greece
- Types of Surgery RA is applied for

Secondary Objectives

- Hospitals Differences across Country
- Factors influencing RA use in Greece

Methods: Descriptive / Comparative Data Analysis

Ethics Approval

ESRA Hellas Scientific Committee (Ethics Committee)

Questionnaire Evaluation & Survey Protocol Approval

Collaborators' Participation: Voluntary

participation agreement with informed consent
freedom to participate or withdraw from study
preserved anonymity of patients data & emerging data safely kept

Statistical Analysis of Data

Returned – Collected Questionnaires

Evaluated for consistency within each section

Statistics: SPSS (Version 17.0), χ^2 Statistical Test ($p < 0.05$)

Results Presentation: descriptive form (Total N, Frequencies, %)

Sample Size Calculation

retrospectively: comparison of a proportion

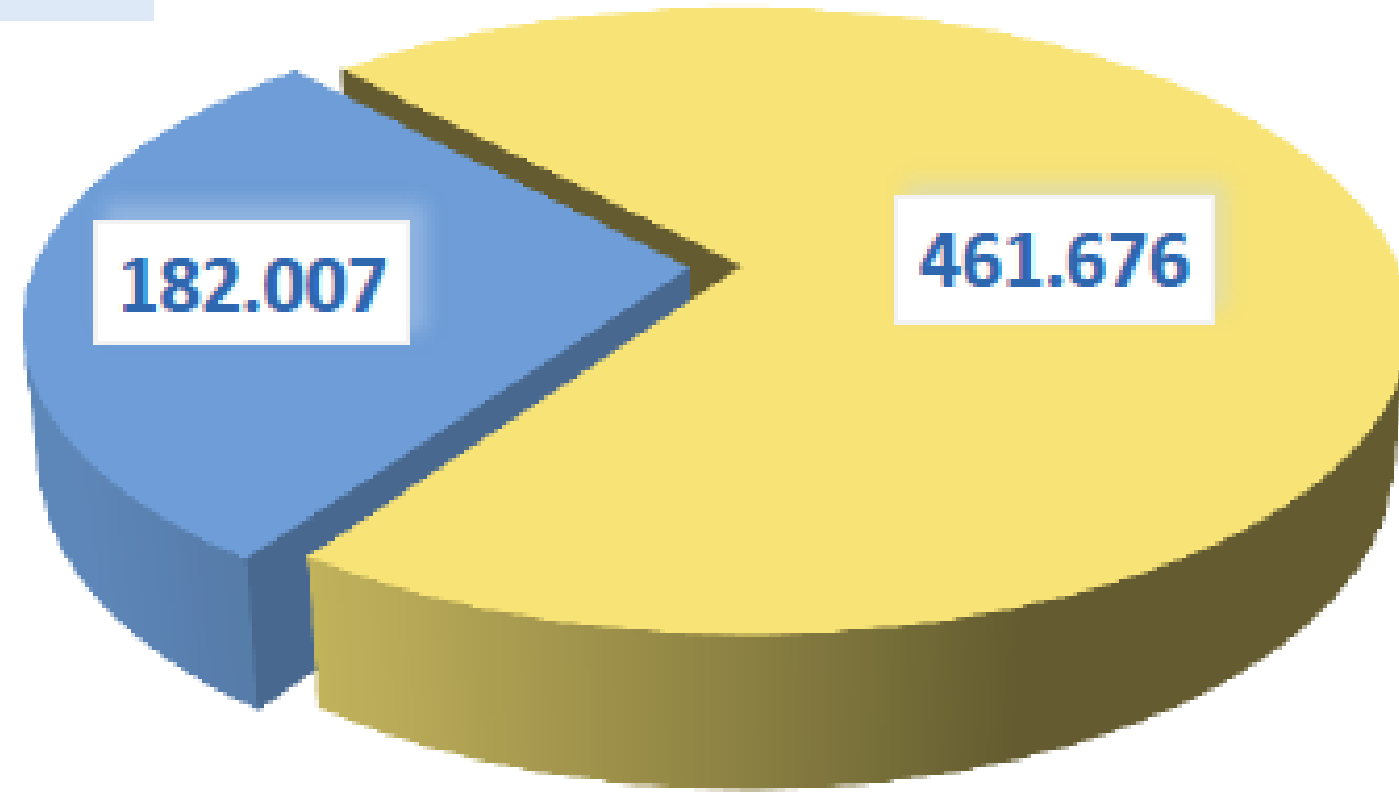
- given that proportion of RA utilization
45.8% in Public Sector & 11.5% in Private Sector
- Type I Error (alpha level, two sided) = 0.01
- Type II Error (beta level) = 0.01
- Null Hypothesis = 50%
- **Min Required Sample Size for Valid Conclusions**
 - 3.744 operations in Public Sector
 - 28 operations in Private Sector

Study Results

Contact Rate: 128/230 Anaesthesiology Departments (55.65%)
74/129 in Public Sector (57.36%) & 54/101 in Private Sector (53.46%)
Response Rate: 66/128 Anaesthesiology Departments (51.56%)
40/74 in Public Sector (54.05%) & 26/54 in Private Sector (48.15%)
In Private Sector: 23/26 Anaesthesiology Departments (88.46%)
no routine RA performance on a regular basis
presented results: from Public Sector

SAMPLE Representativeness

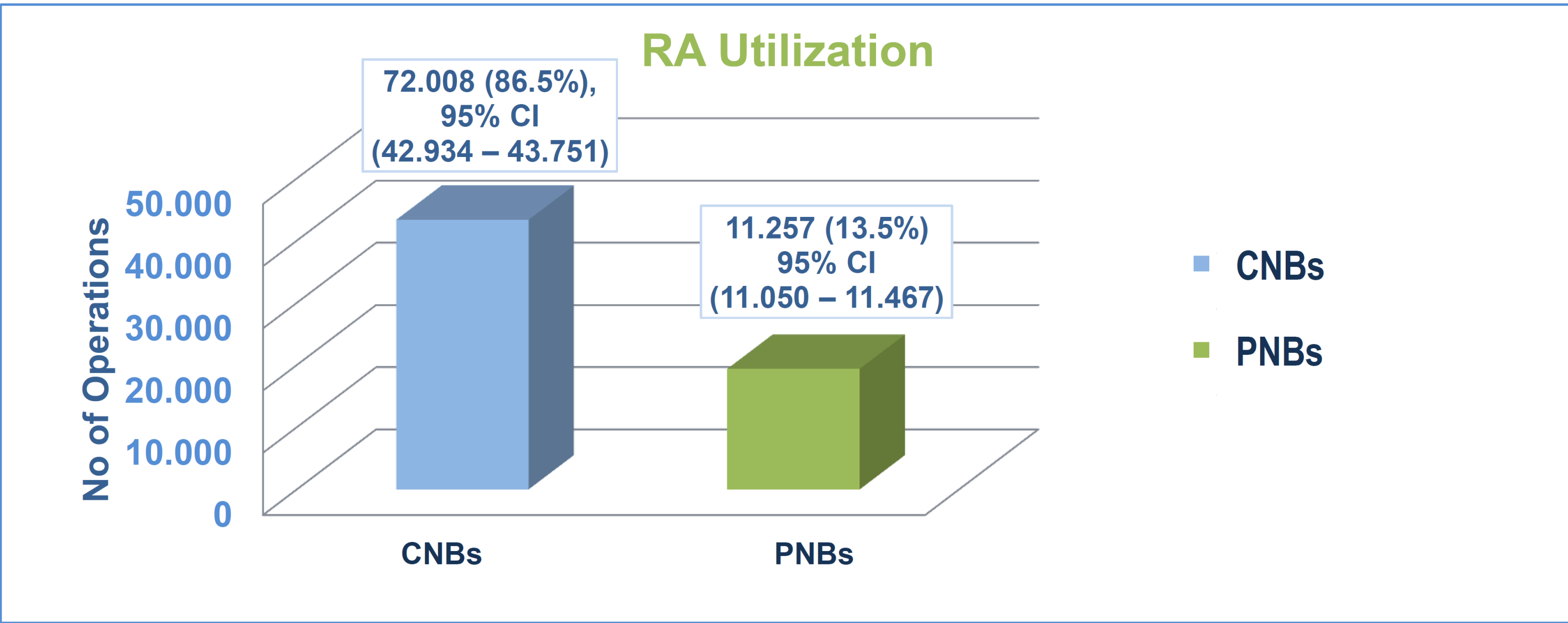
40 Public Hospitals included
from all Geographical Regions
from all Health Districts (7)
182.007 operations in Public Sector
≈ 40% over 461.676 operations



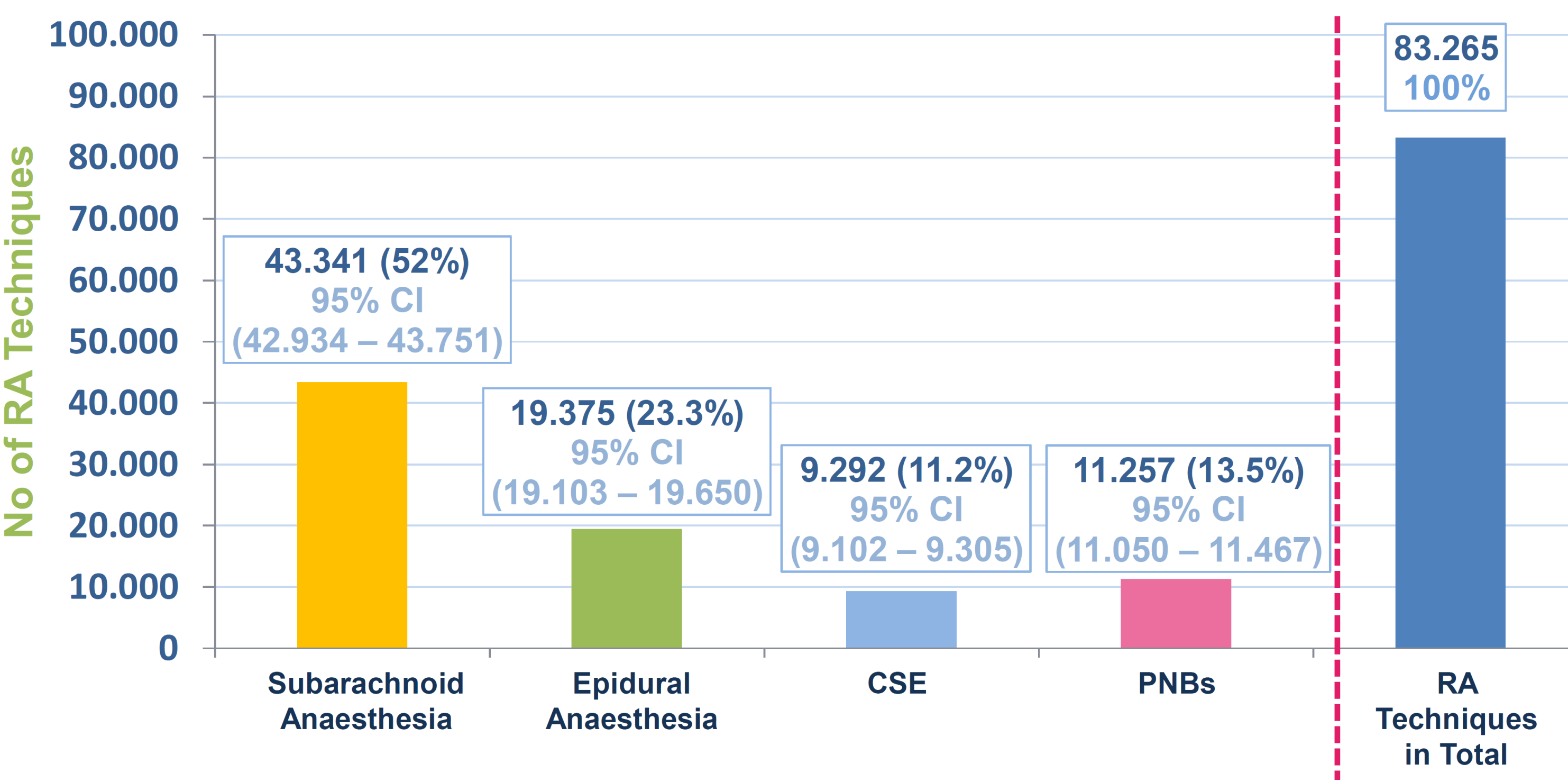
RA Application Rates in Greek Public Hospitals

Applied in **almost half** of surgical procedures

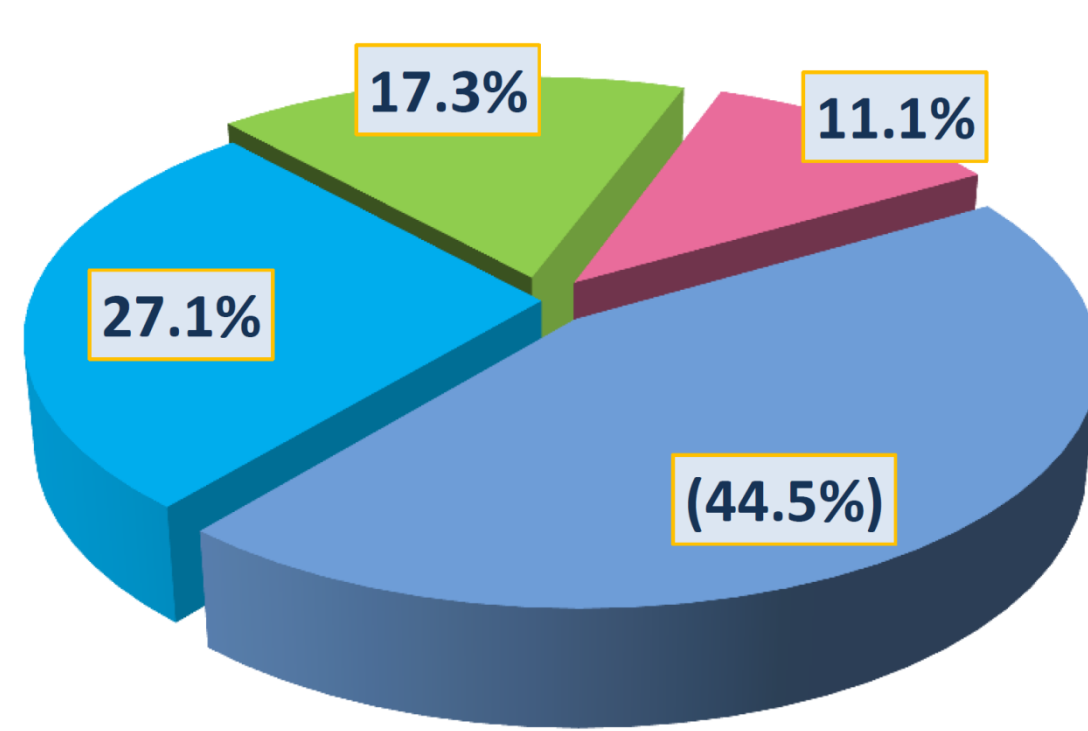
83.265 / 182.007 operations: **45.8% (95% CI, 82.700 – 83.832)**



CNBs Application Rates in Greek Public Hospitals

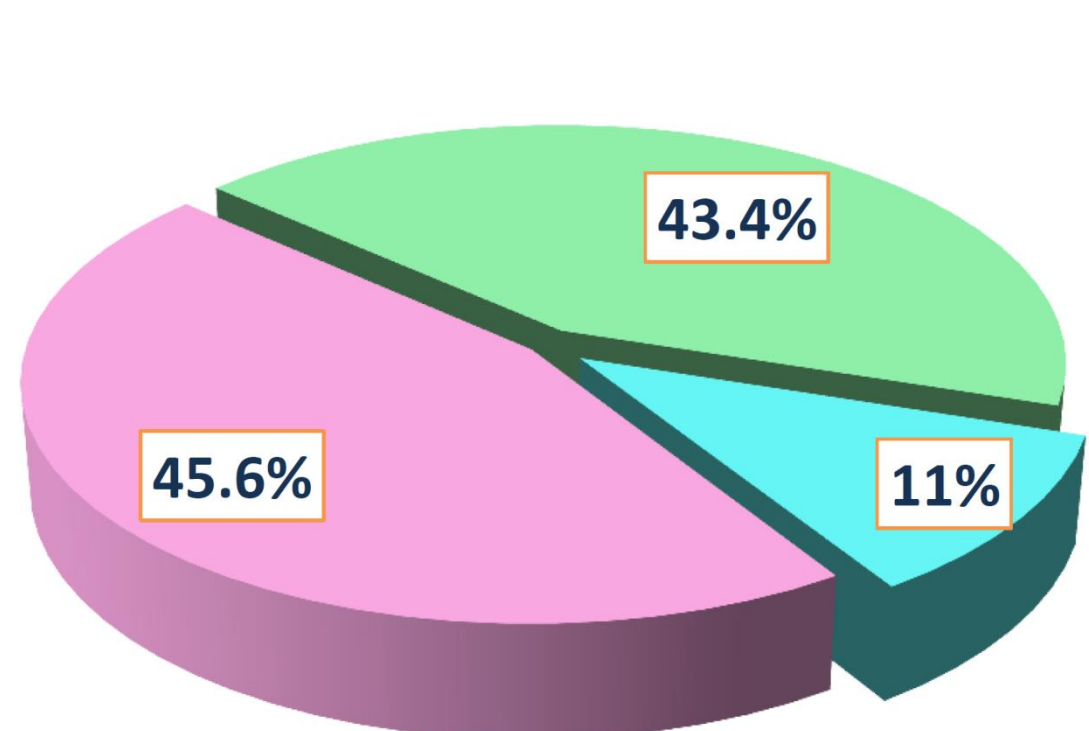


Subarachnoid Anaesthesia (43.341 patients)



■ Orthopaedic Surgery
■ Obstetrics – Gynaecology
■ General Surgery
■ Urology & Vascular Surgery

Epidural Anaesthesia (19.375 operations)



■ Obstetrics – Gynaecology
■ General, Urology & Vascular Surgery
■ Orthopaedic Surgery

Study Results

RA for Caesarean Section (CS) in Greek Hospitals

Public Hospitals of the Capital

EPIDURAL / CSE → 50.3%

Public Hospitals of Periphery (County Institutions)

mostly SUBARACHNOID → 64.9 – 90.1%



PNBs Application in Greek Hospitals (11.257 pts)

Mostly **Upper Limb** (41.3%) & **Lower Limb** (50.7%) PNBS

Aim → Anaesthesia & POSTOP Analgesia

Peripheral Nerve Catheters → Uncommon

If Placed: remained for 48 – 72 hours

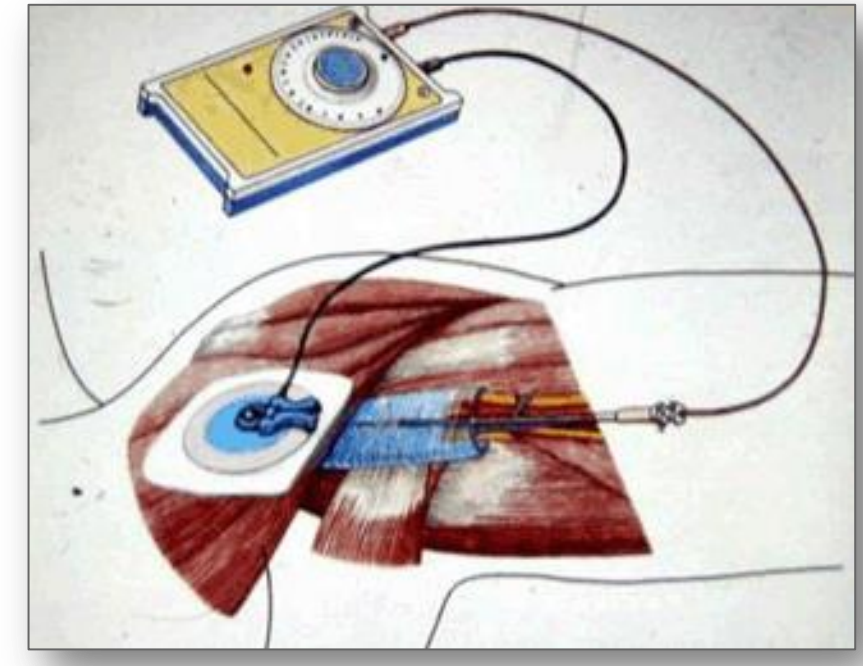
70.2% of PNBS → Capital Hospitals

29.8% of PNBS → County Hospitals



SELECTED TECHNIQUE FOR PNBS APPLICATION

- Neurostimulator – NS (**78.5%**)
- Ultrasounds – US (**1.5%**)
- Combination of NS – US (**3.5%**)
- Landmarks Identification (**90.5%**)
- Paraesthesia (**16%**)



FAMILIARITY WITH RA

(345 Greek Anaesthesiologists)

- CNBs → Broad (**94.49%**)
- PNBS → Limited (**46.38%**)

PNBS APPLICATION HINDERING FACTORS

- Lack of Necessary Equipment (**58.23%**)
- Inadequate Training (**49.29%**)

Conclusions

Survey – Based Study: RA Application in Greece

identification of Strengths & Deficiencies

RA Utilization: 45% of all operations

percentages in other countries: great variation (46.3 – 71.4%)

RA techniques used on a regular basis (CNBs more often vs PNBS)

Selection of RA Technique

- type of surgery
- experience – training
- equipment availability

Future Directions

SUGGESTIONS – NECESSITY FOR

- detailed & concise **Questionnaires**
- RA Application **Registries**
 - collaborative networks & prospective data collection
 - research, education, training & quality improvement

Pan – European Survey under ESRA Auspices



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