

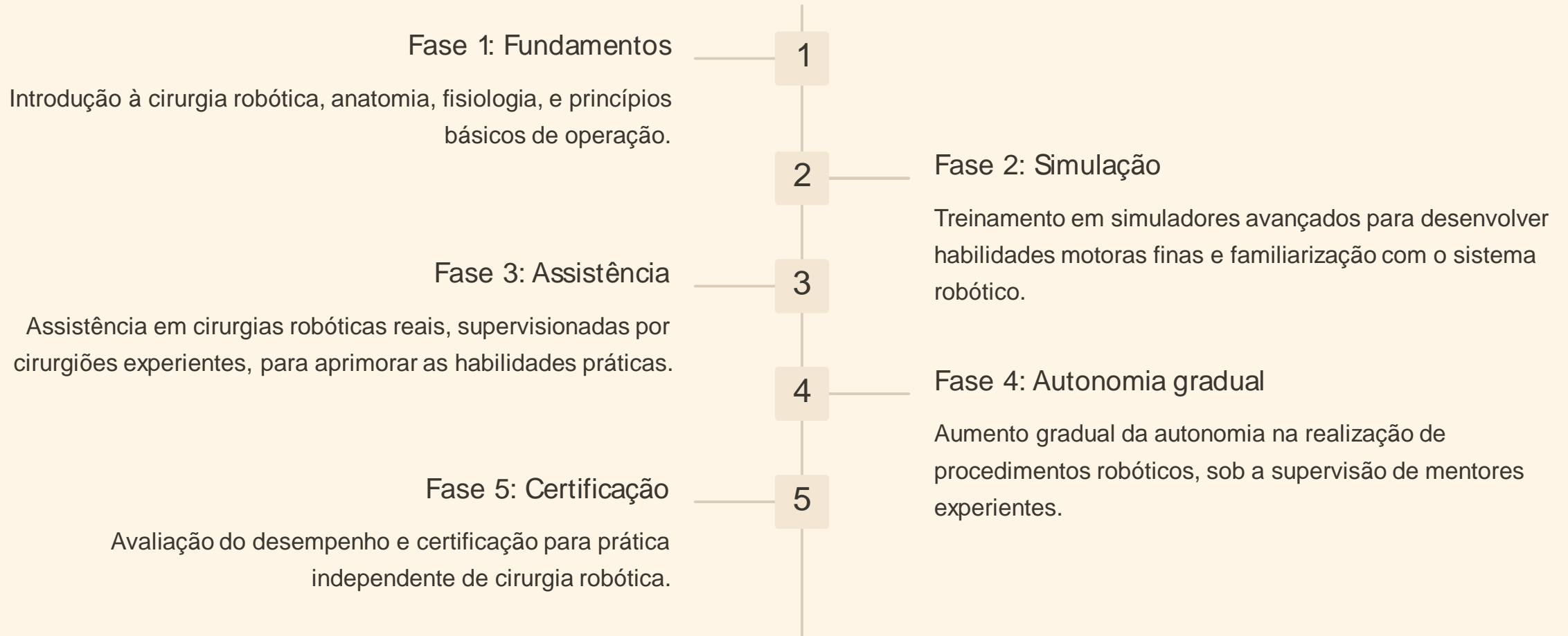
Treinamento e Qualificação em Cirurgia Robótica no SUS

Inclusão da Cirurgia Robótica na
Grade Curricular das
Universidades Públicas
Federais

- **FELIPE LOTT**
- MD, MsC, PhD, TiSBU
- STAFF– INCa
- PRECEPTOR FELLOWSHIP– INCa
- COORDENADOR DO DEPARTAMENTO DE URO-ONCOLOGIA - SBU-RJ 2016-2018
- COORDENADOR DO DEPARTAMENTO DE LAPAROSCOPIA E ROBÓTICA - SBU-RJ 2018-2019



Programa de Treinamento e Capacitação de Profissionais de Saúde



Necessidade de Atualização do Currículo Médico

Tecnologia Avançada

Atualização urgente para preparar médicos do futuro.

Formação Completa

Ensino teórico e prático com simuladores.

Adaptação do Currículo

Integração de novas disciplinas e cursos.





2,200,000+

Procedures performed on
da Vinci® systems in 2023

15,400,000+

Procedures performed on
da Vinci® systems to date¹



3,000+

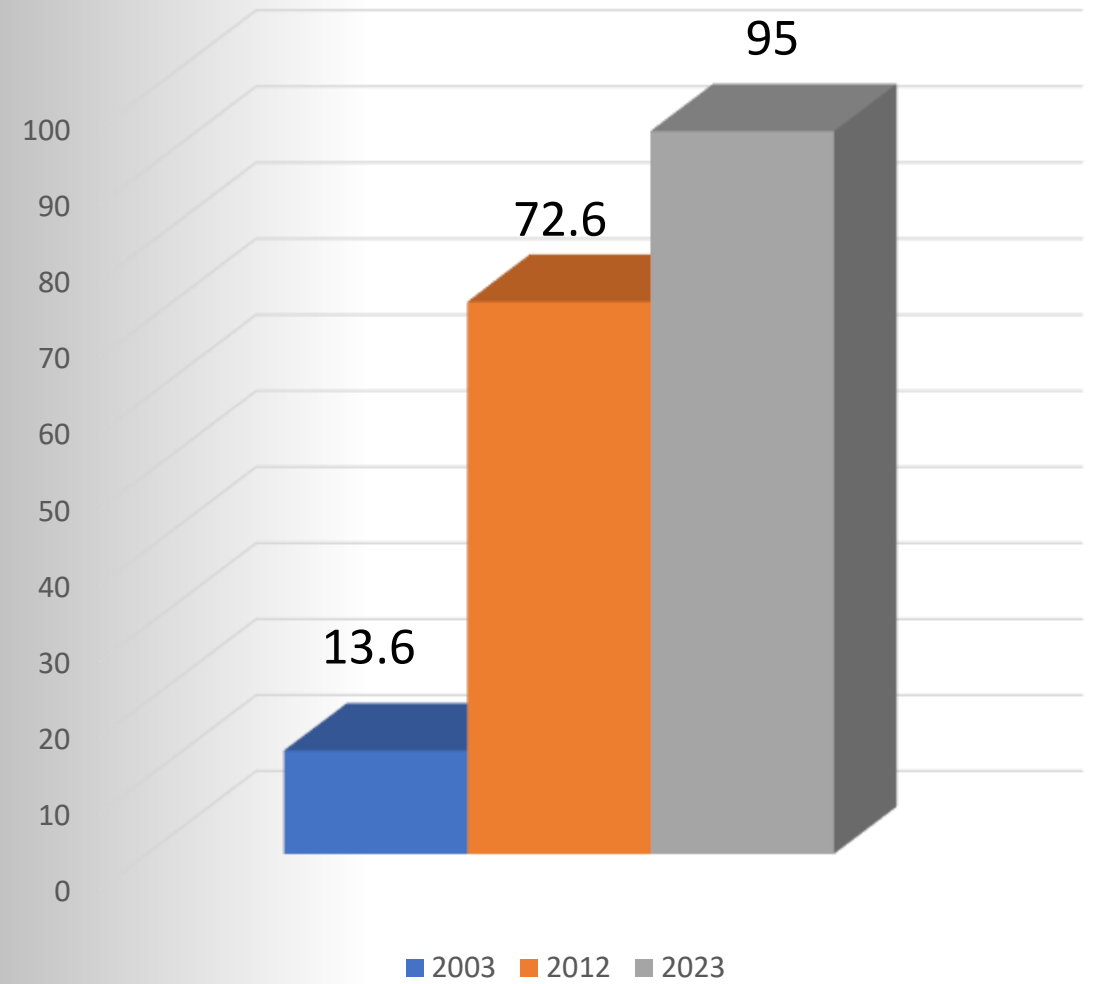
Peer-reviewed articles
published in 2023

38,000+

Peer-reviewed articles
published to date²

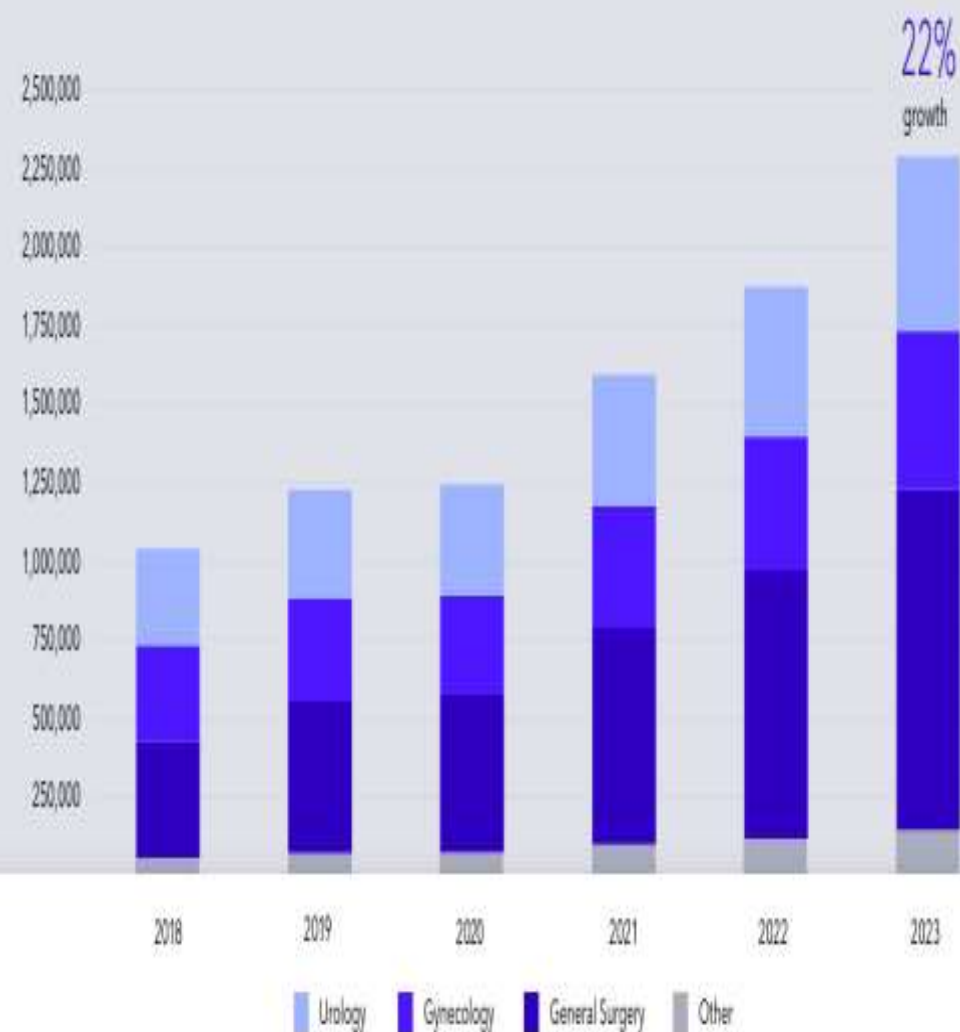


Prostatectomia radical robótica - EUA (%)





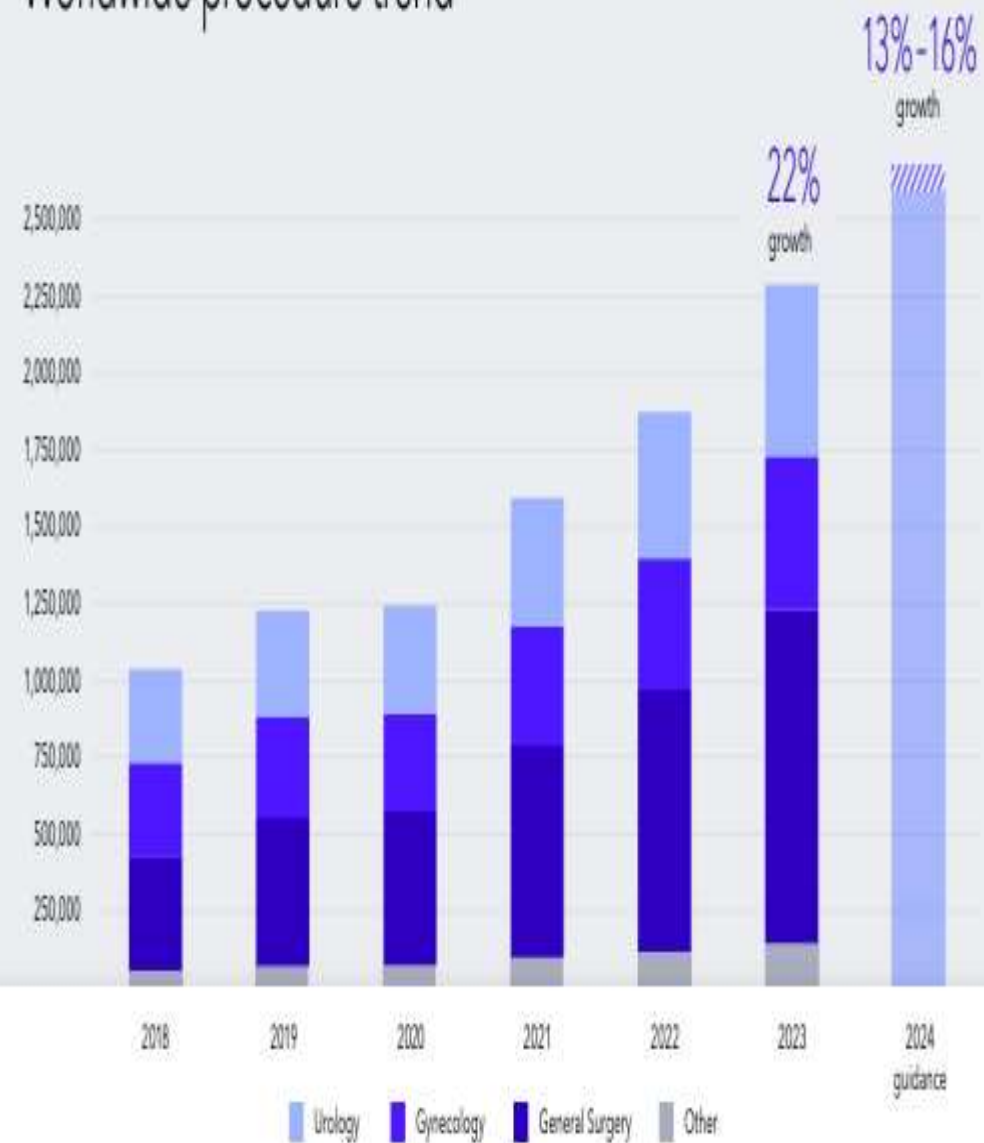
Worldwide procedure trend



Source: Intuitive 2023 earnings.



Worldwide procedure trend



Source: Intuitive 2023 earnings estimate.



Da Vinci System Installed Base

9,203

worldwide as of
June 30, 2024

5,385

United States

3,818

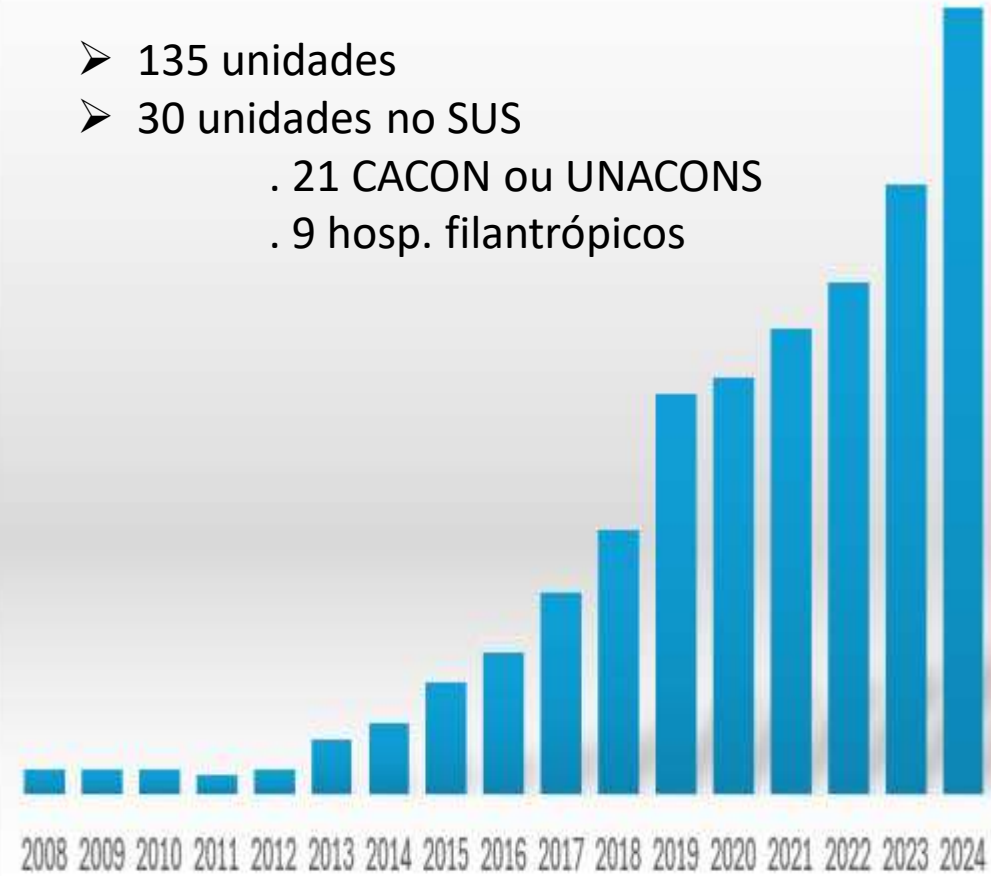
Outside of the
United States





Número de sistemas robóticos em produção

- 135 unidades
- 30 unidades no SUS
 - . 21 CACON ou UNACONS
 - . 9 hosp. filantrópicos



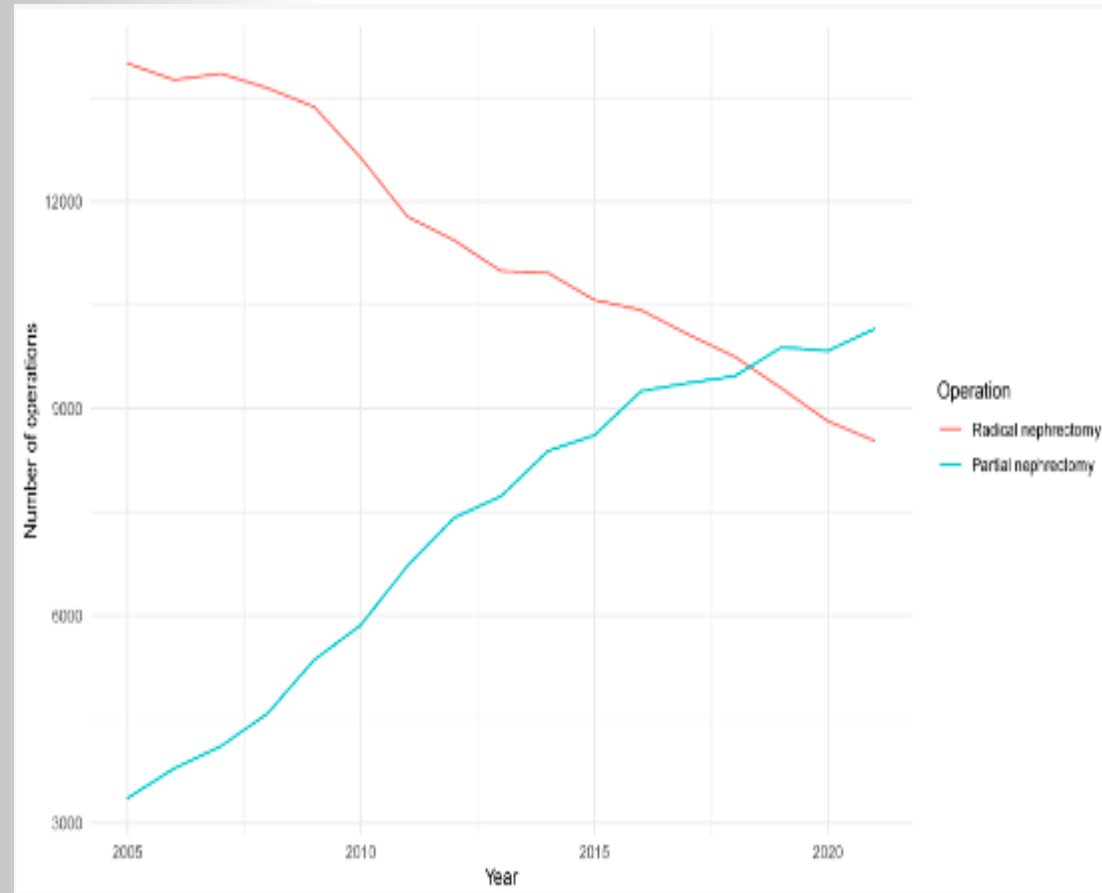
Surgical Trends and Complications in Partial and Radical Nephrectomy: Results from the GRAND Study

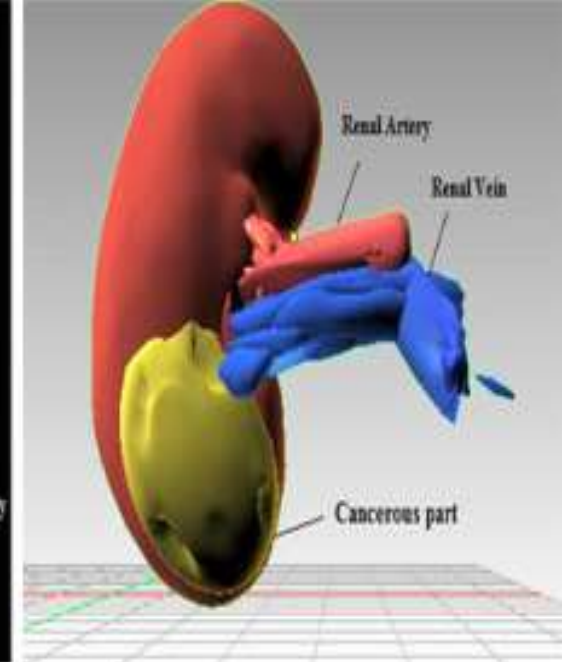
by Nikolaos Pyrgidis , Gerald Bastian Schulz , Christian Stief , Iulia Blajan , Troya Ivanova , Annabel Graser  and Michael Staehler*  

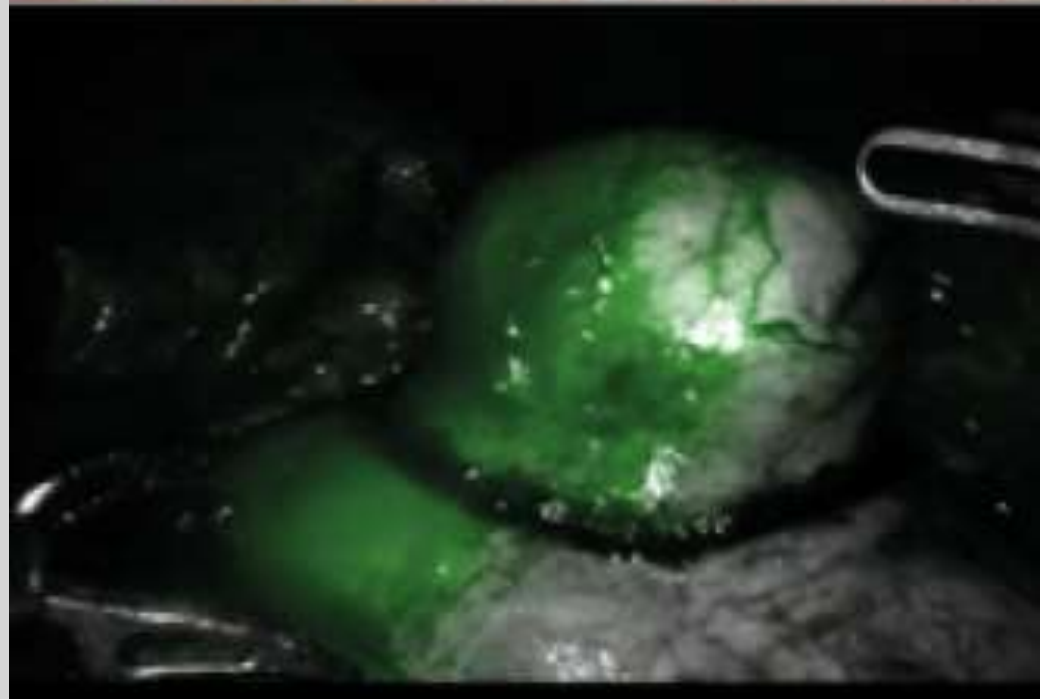
Department of Urology, LMU University Hospital, LMU Munich, 81377 Munich, Germany

* Author to whom correspondence should be addressed.


Cancers 2024, 16(1), 97; <https://doi.org/10.3390/cancers16010097>

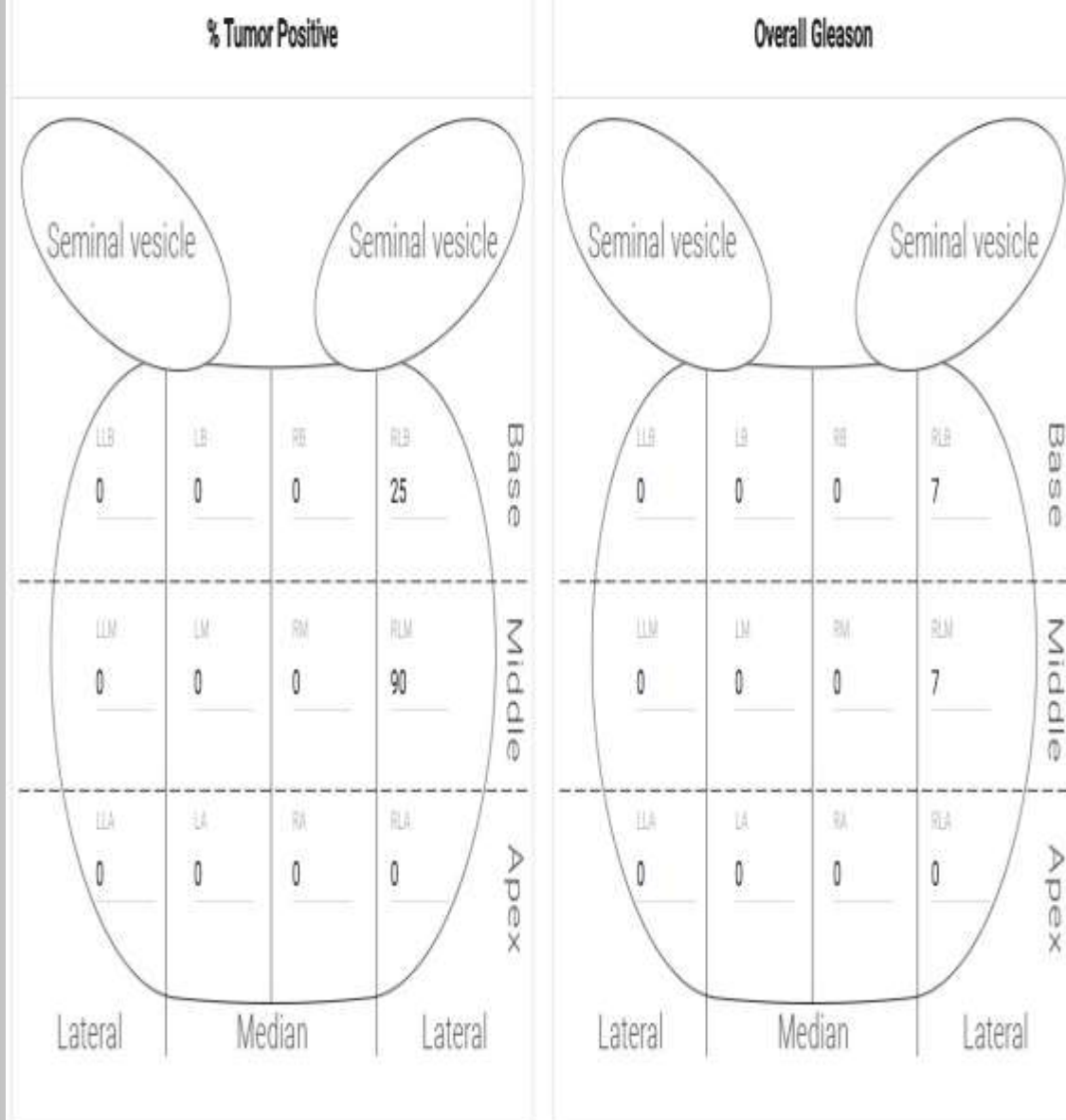




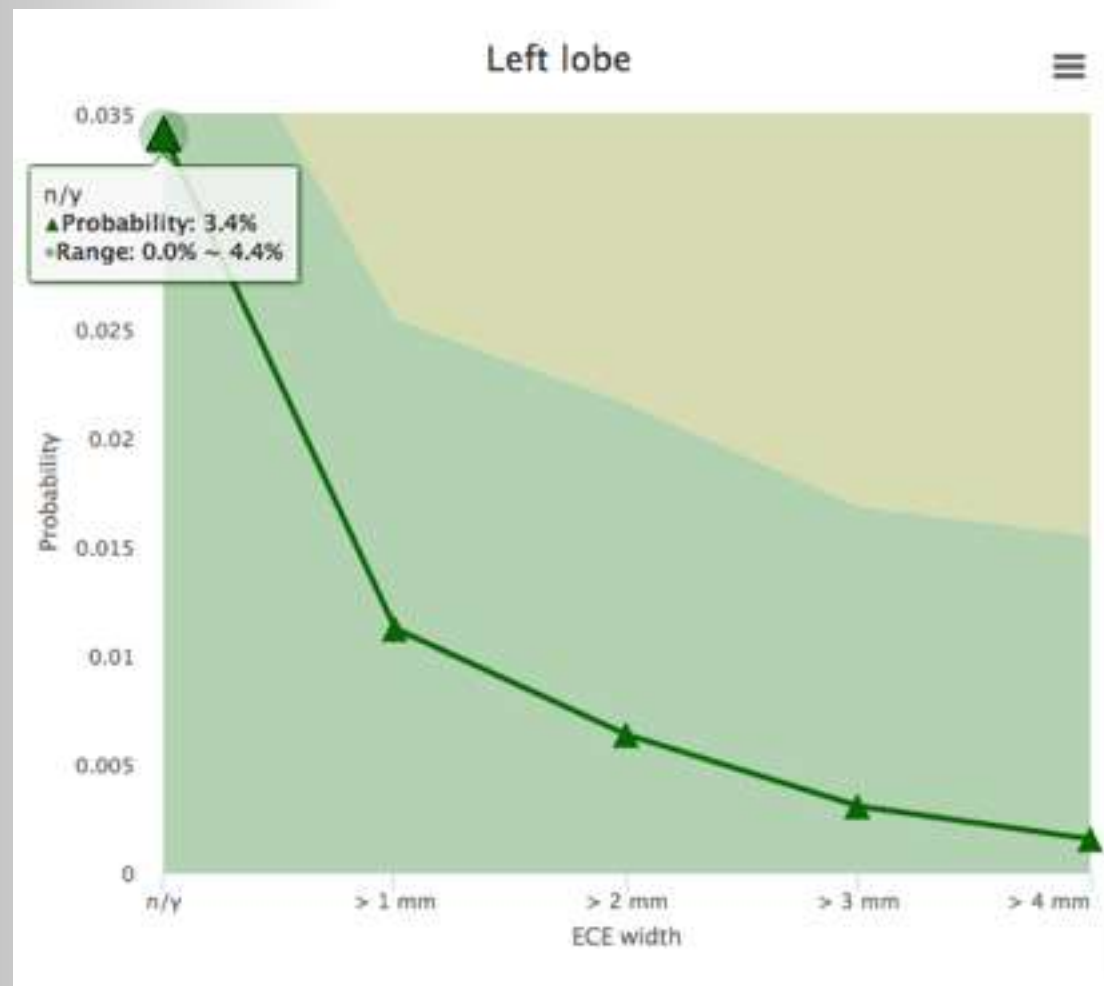


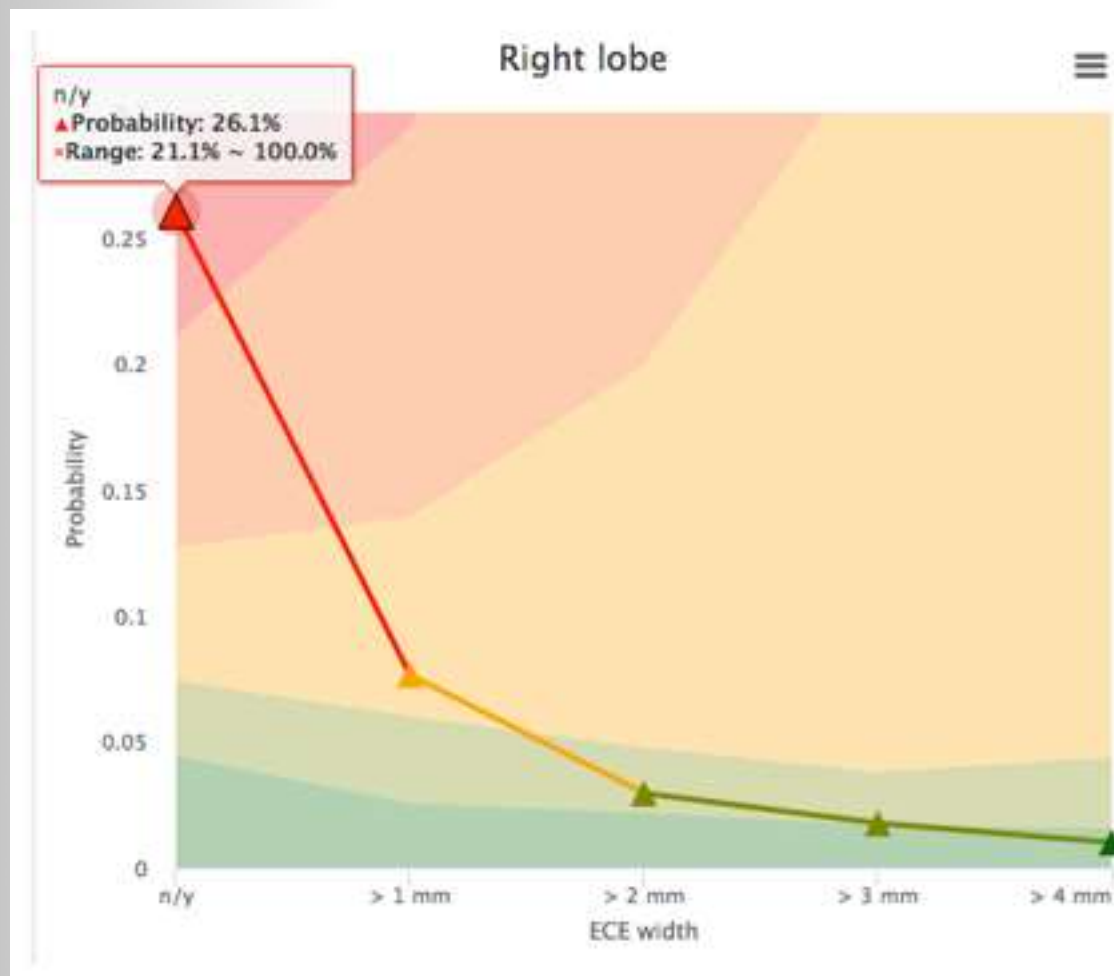
A novel tool for predicting extracapsular extension during graded partial nerve sparing in radical prostatectomy

Vipul R. Patel*, Marco Sandri†, Angelica A.C. Grasso‡, Elisa De Lorenzis‡, Franco Palmisano‡, Giancarlo Albo‡, Rafael F. Coelho§, Alexander Mottrie¶**, Tadzia Harvey*, Darian Kameh*, Hariharan Palayapalayam*, Peter Wiklund††, Silvano Bosari‡‡, Stefano Puliatti§§, Paola Zuccolotto¶¶, Giampaolo Bianchi§§ and Bernardo Rocco§§ 



Clinical stage: T1c
Age: 59
Total PSA (ng/mL): 7
SUBMIT







EUROPEAN UROLOGY 61 (2012) 796–802

available at www.sciencedirect.com

journal homepage: www.europeanurology.com



European Association of Urology



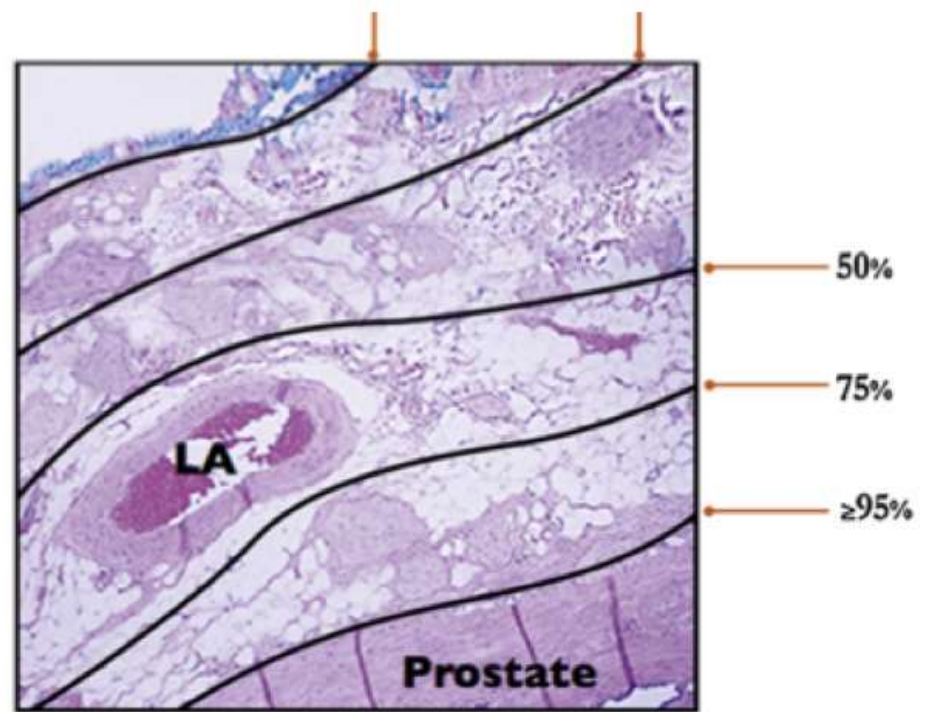
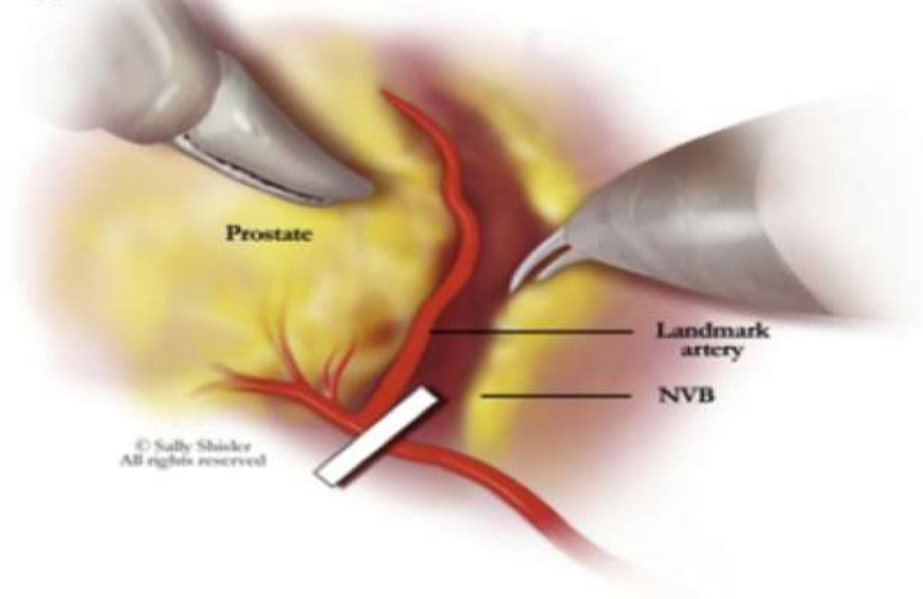
Surgery in Motion

Anatomic Grading of Nerve Sparing During Robot-Assisted Radical Prostatectomy

*Oscar Schatloff^a, Sanket Chauhan^{a,b}, Ananthkrishnan Sivaraman^a, Darian Kameh^a,
Kenneth J. Palmer^{a,b}, Vipul R. Patel^{a,b,*}*



a

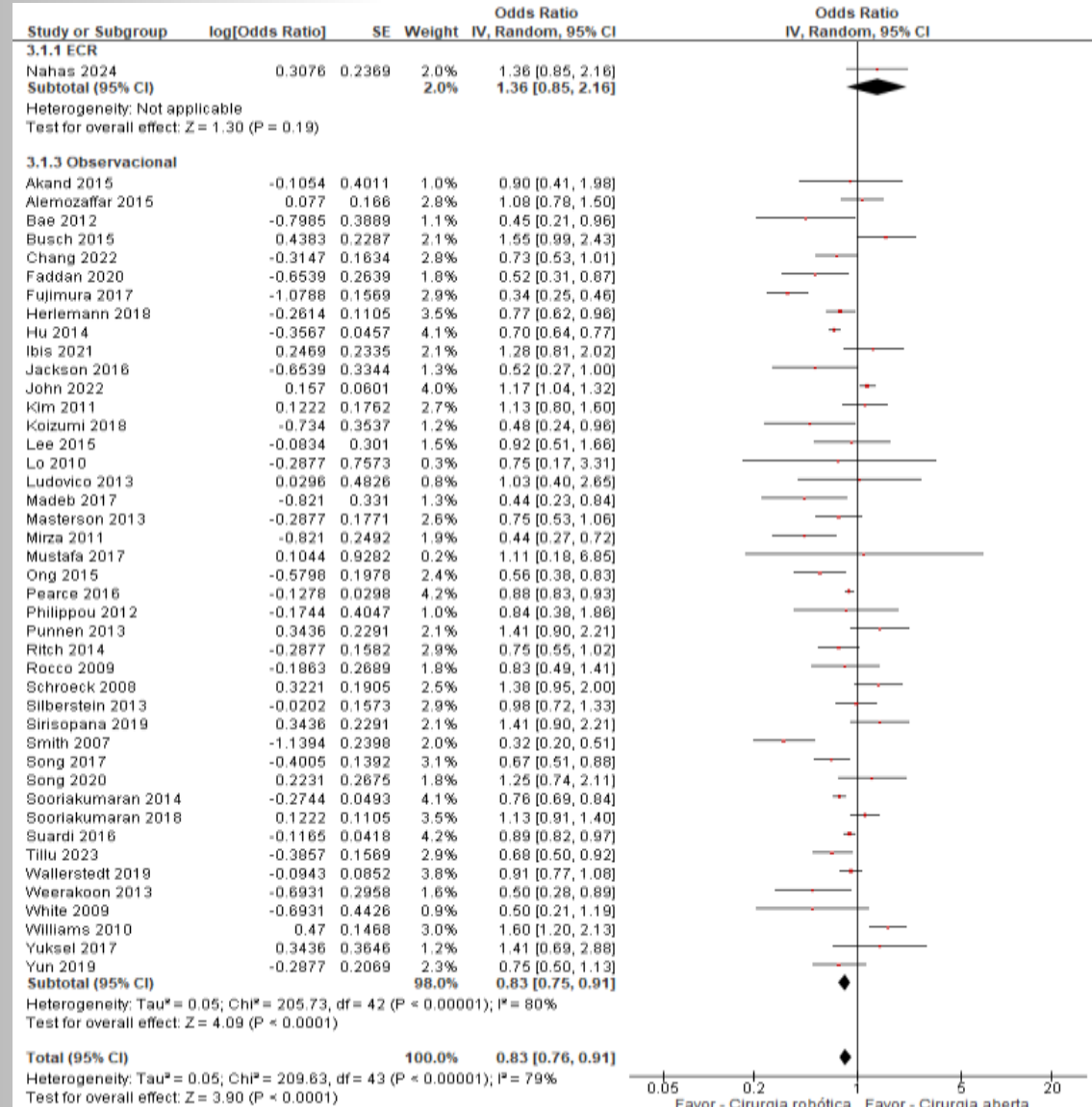




RESULTADOS COMPARATIVOS

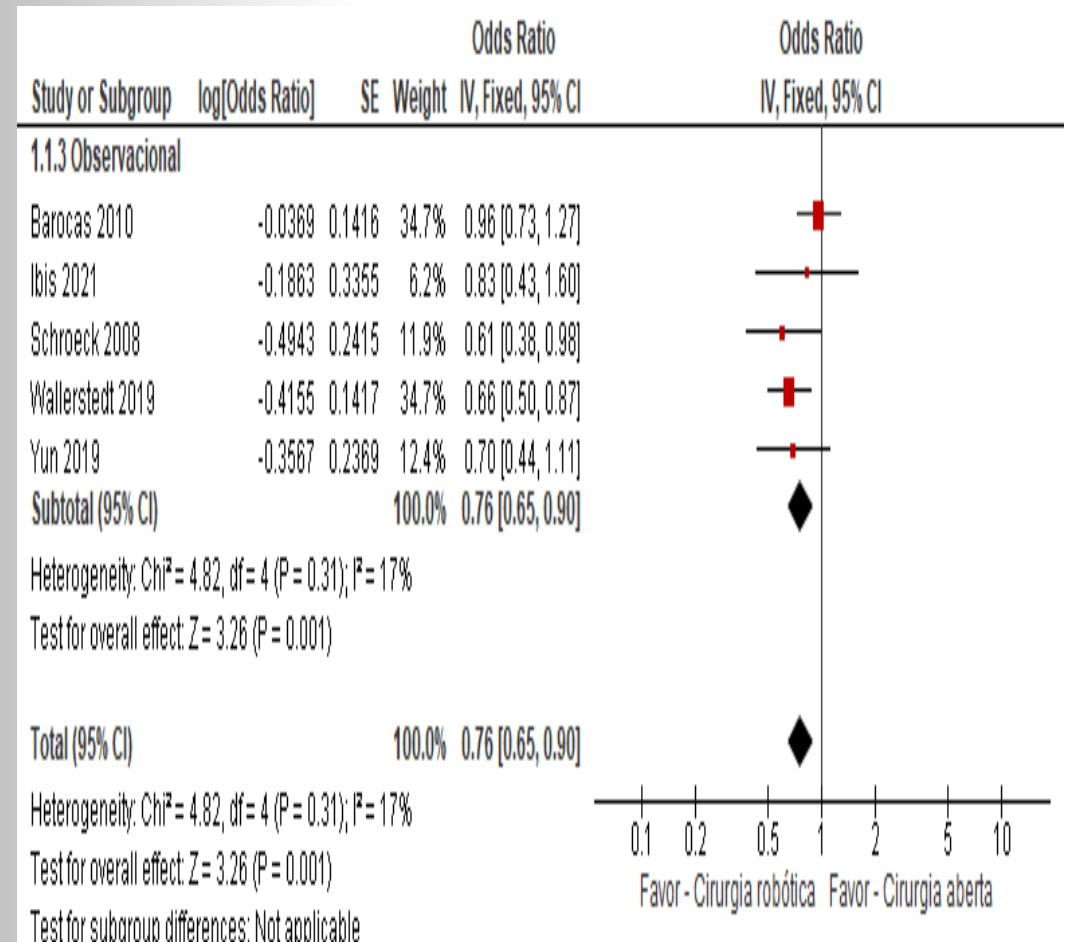


Margem cirúrgica comprometida. RARP x ORP



Recorrência bioquímica

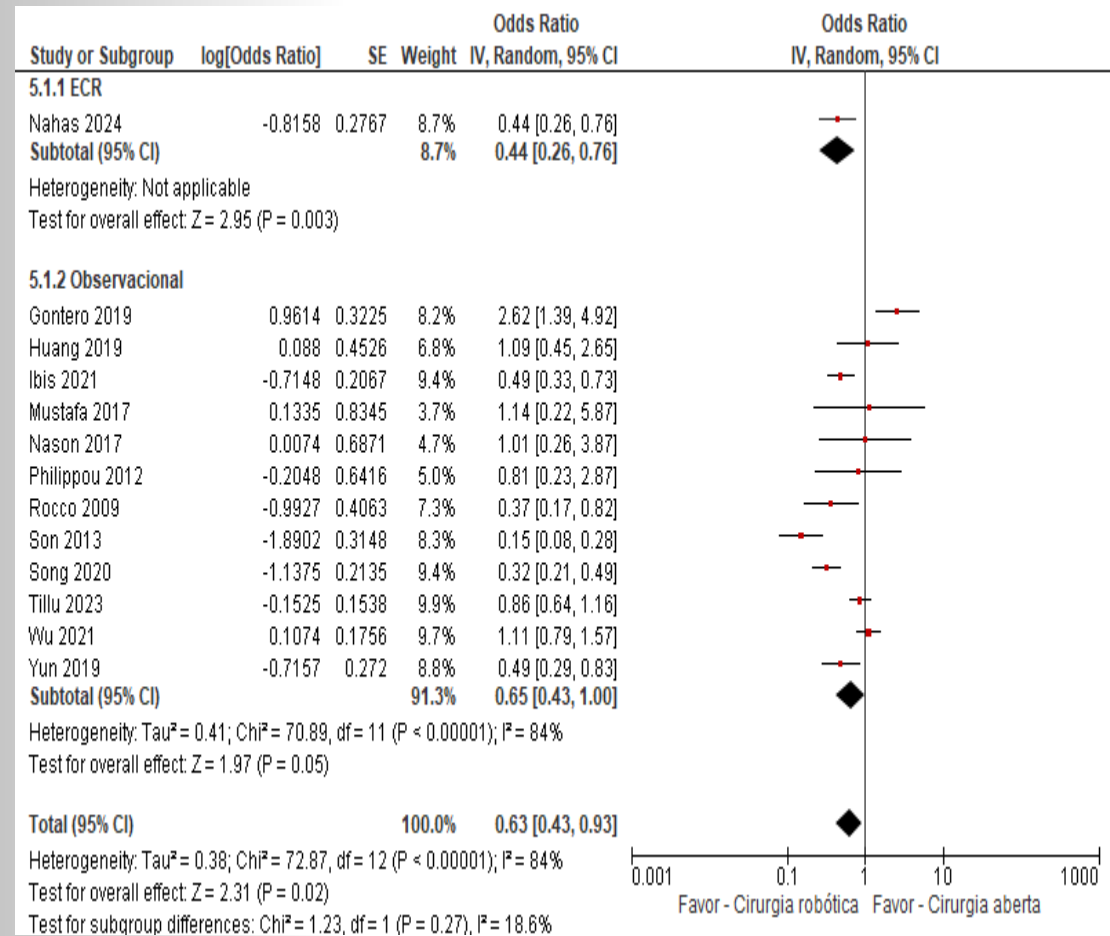
- RARP vs ORP – 7-12 months





Incontinência urinária

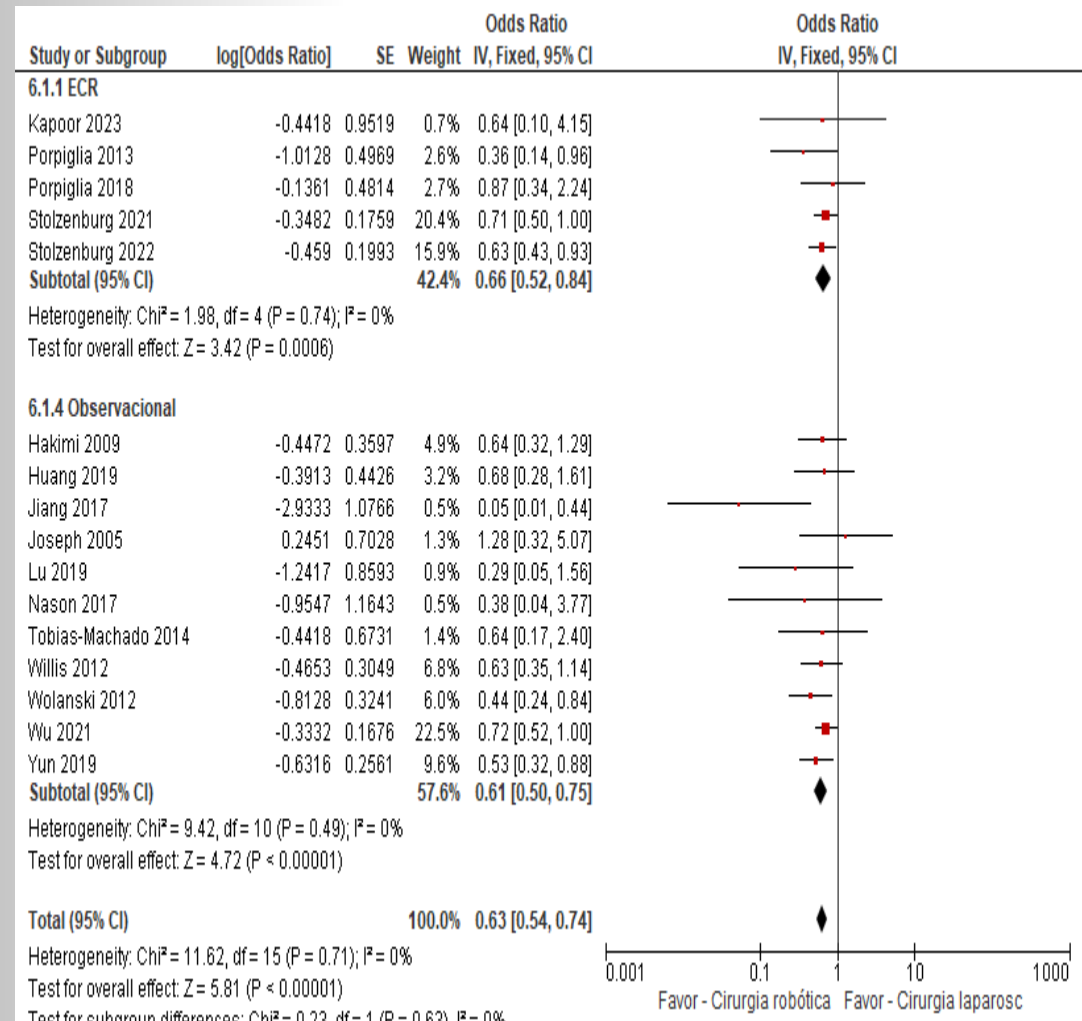
- RARP vs ORP – 1-6 months





Incontinência urinária

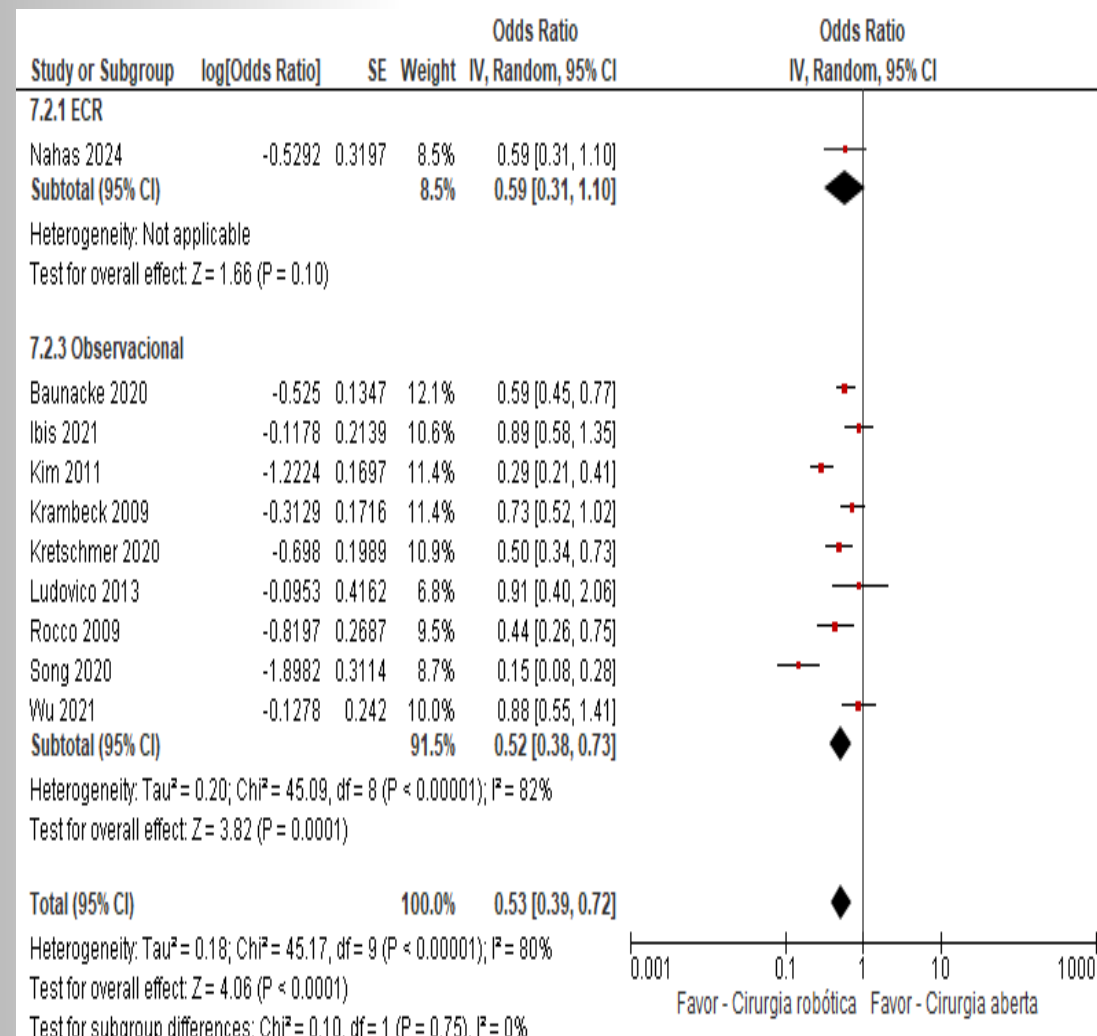
RARP vs LRP – 1-6 months





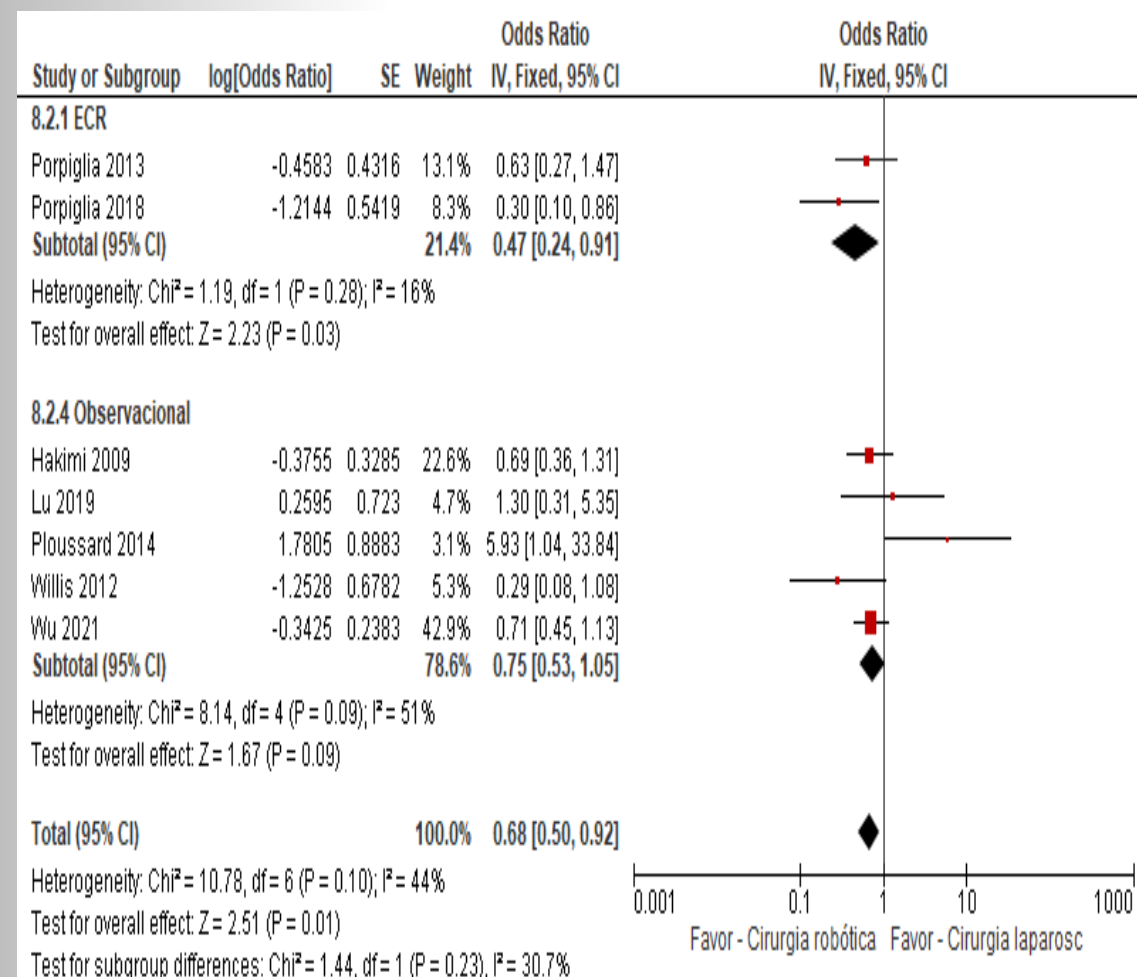
Disfunção erétil

- RARP vs ORP – 7-12 months



Disfunção erétil

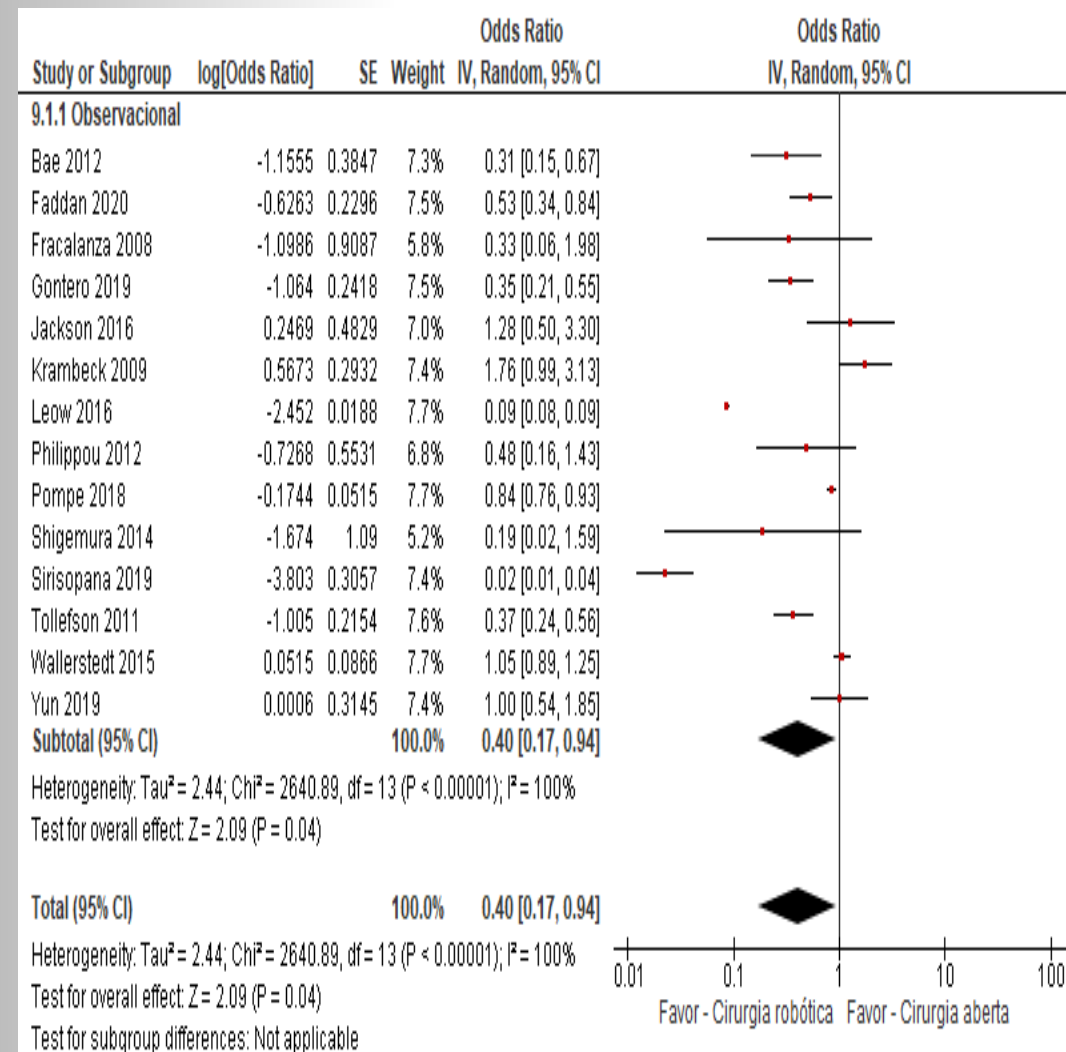
RARP vs LRP – 7-12 months





Complicações

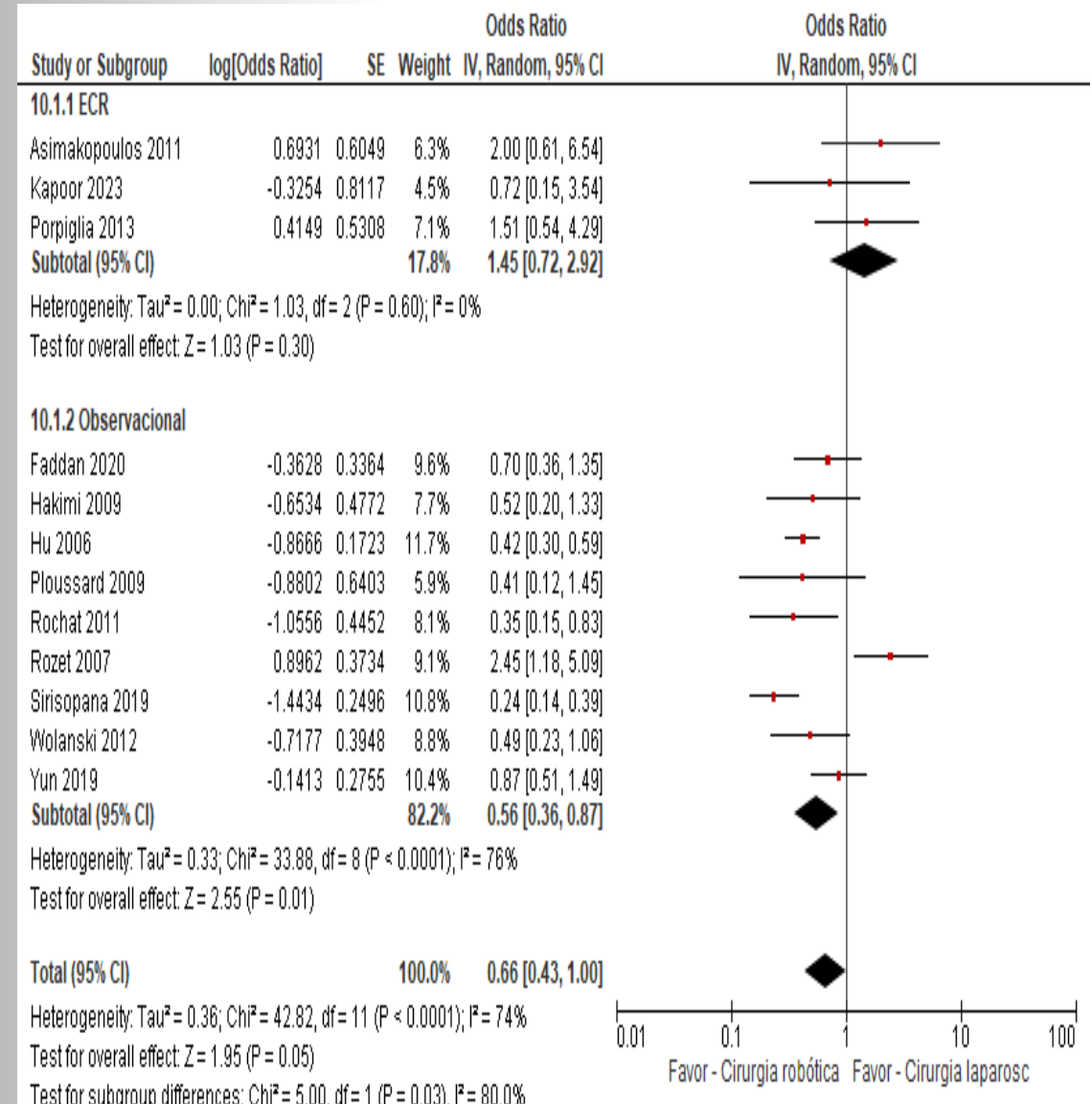
- RARP vs ORP





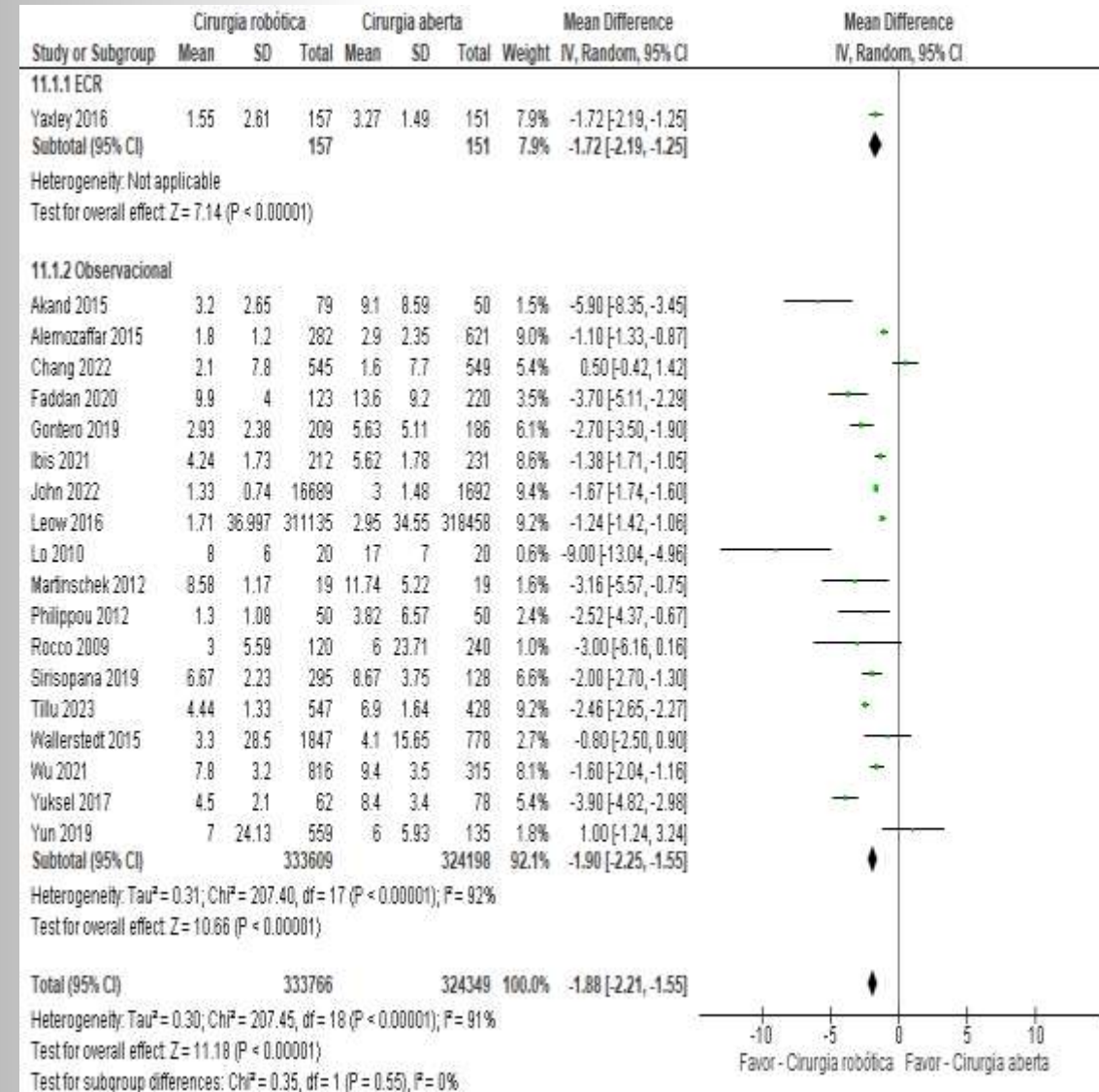
Complicações

RARP vs LRP



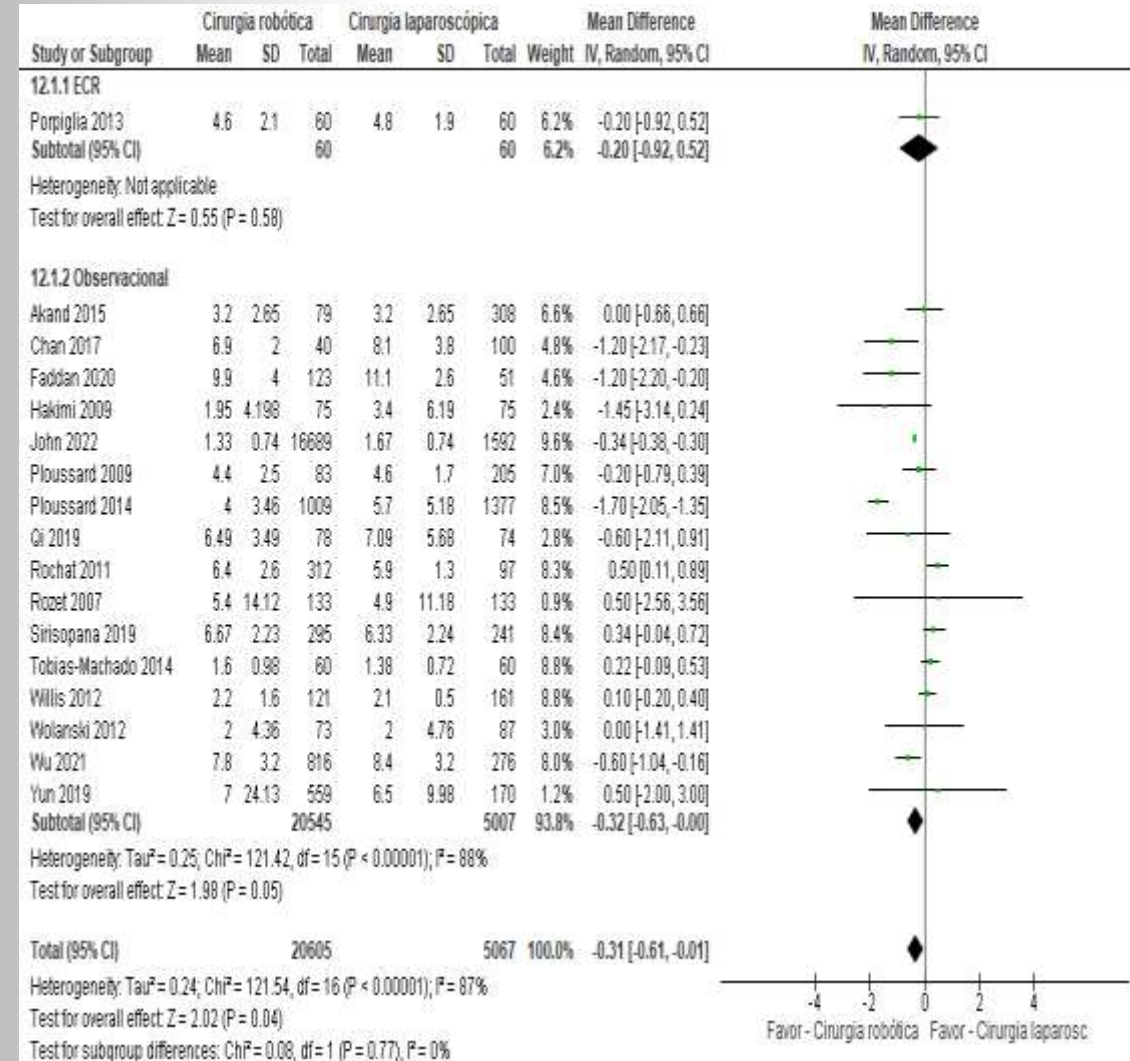


LOS – RARP vs ORP





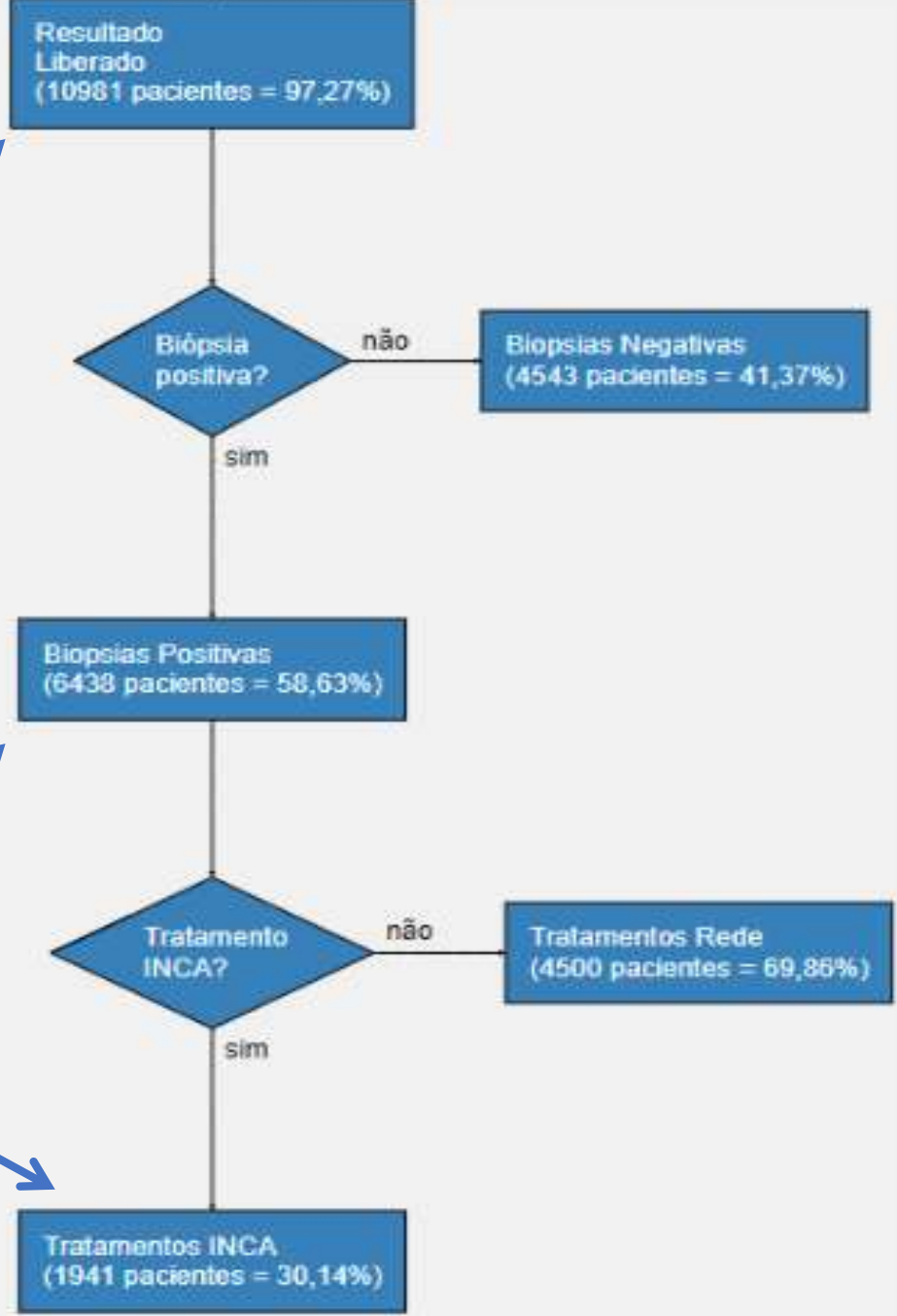
LOS – RARP vs LRP







3000 bxs/ano
15 dias para marcar
30 dias para resultado

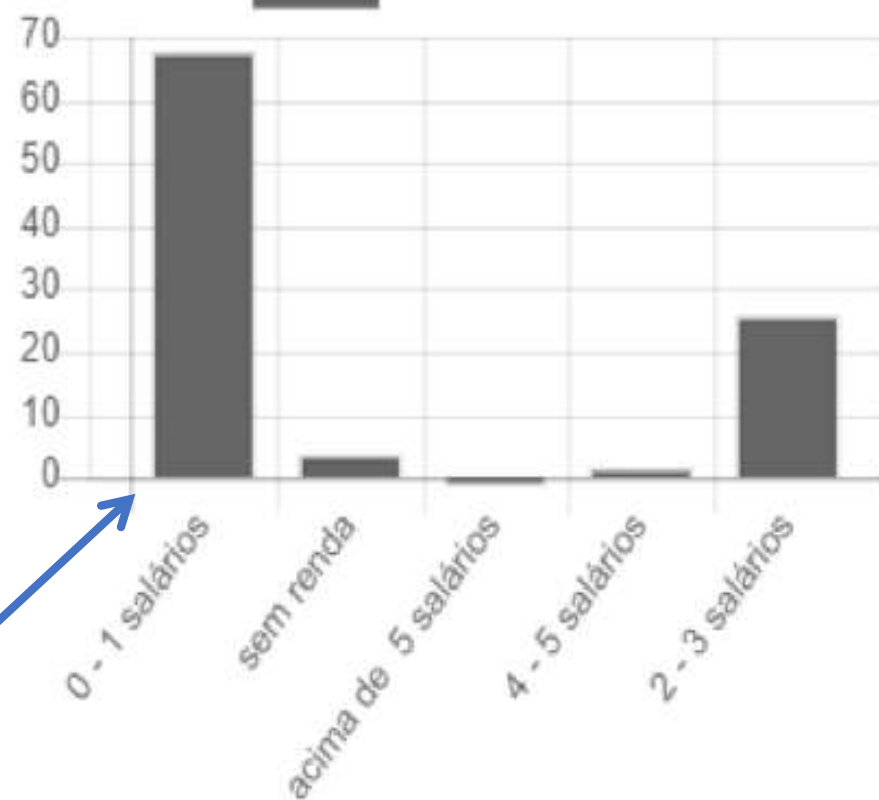




CLASSE ECONÔMICA

% Pacientes regulados

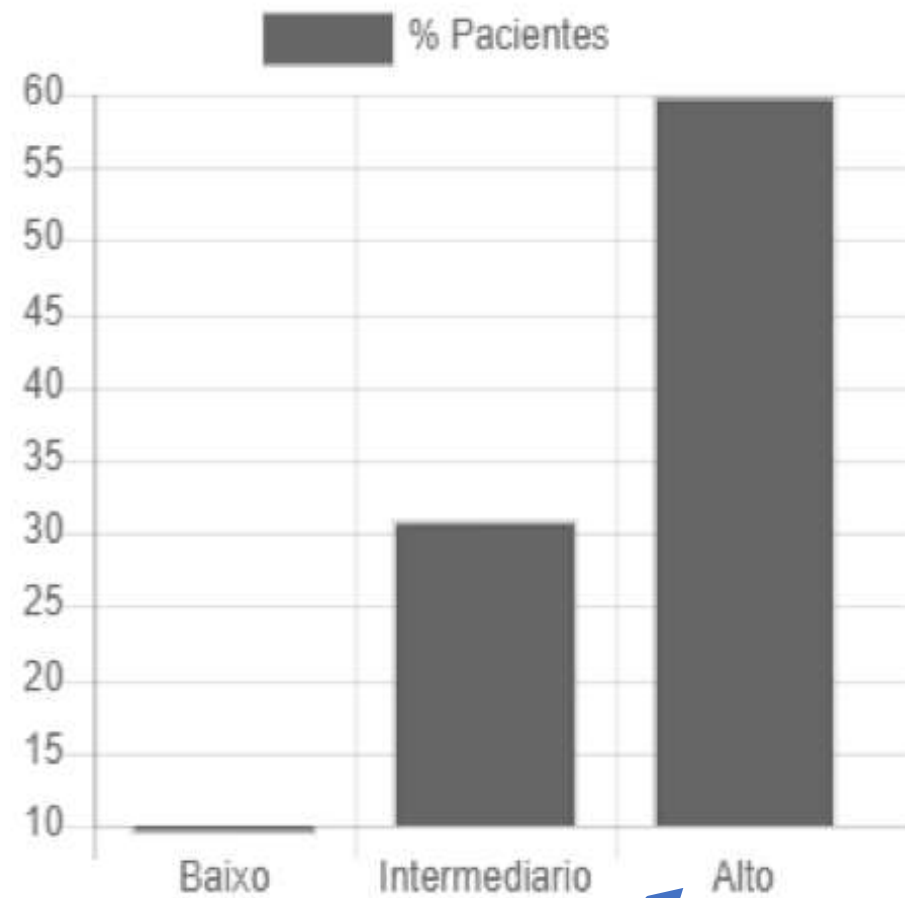
█ % Pacientes





D'AMICO

% Pacientes com resultado positivo

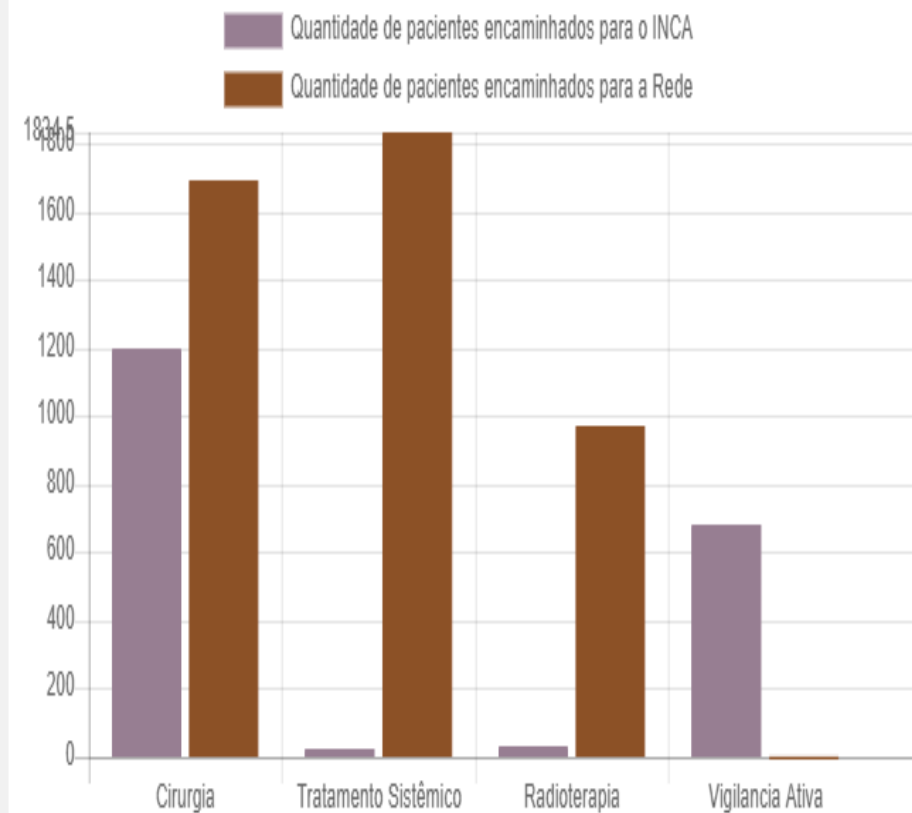




1742 cirurgias

. 576 cirurgias urológicas (33%)

DESTINO X CONDUTA





Abraham Lincoln

"Me dê 6 horas para derrubar uma árvore e eu passarei as 4 primeiras afiando o machado".



Manobras básicas

Passos cirúrgicos complexos

Coordenação da equipe cirúrgica

**Maior importância nas fases
iniciais do treinamento**

Chowriappa A, Raza SJ, Fazili A, Field E, Malito C, Samarasekera D, Shi Y, Ahmed K, Wilding G, Kaouk J (2015) Augmented-reality-based skills training for robot-assisted urethrovesical anastomosis: a multi-institutional randomised controlled trial. *BJU Int* 115:336–345



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OF.SBU/ 0113/2020

Rio de Janeiro, 30 de setembro de 2020.

RESOLUCAO SOCIEDADE BRASILEIRA DE UROLOGIA 01/2020. NORMATIVA DE CERTIFICAÇÃO DE HABILITAÇÃO EM CIRURGIA ROBÓTICA EM UROLOGIA

A Sociedade Brasileira de Urologia (SBU) cumprindo a determinação da Resolução CREMERJ Nº 299/2019 modificada pela Resolução CREMERJ nº 301/2019, dispõe sobre a necessidade de normatização de habilitação, treinamento e certificação em Cirurgia Robótica. (**anexo 1**) e seguindo norma para certificação de habilitação em cirurgia robótica da Associação Médica Brasileira (**anexo 2**) estabelece os seguintes critérios de certificação para cirurgia robótica em urologia (cirurgia laparoscópica com técnica robô



RESOLUÇÃO CREMERJ Nº 299/2019
Modificada pela Resolução CREMERJ nº 301/2019

Dispõe sobre a necessidade de normatização de habilitação, treinamento e certificação em Cirurgia Robótica.

Art. 1º Estará apto a se habilitar em cirurgia robótica o profissional com Registro de Qualificação e Especialidade (RQE) em área cirúrgica.

Art. 2º Caberá às Sociedades de Especialidades filiadas à AMB definir os critérios de habilitação para o cirurgião ingressar na cirurgia robótica, observado o seguinte:

I - necessário treinamento teórico e prático para conhecimento do funcionamento e componentes da plataforma robótica a ser utilizada em cirurgia;

II - necessário treinamento mínimo em simulador;

III - necessário acompanhar presencialmente um número mínimo de cirurgias na especialidade realizadas por um cirurgião preceptor;

I: 15 horas online

II: 40 horas

III:


10 observações de caso

10 bedside assistant

10 cirurgias com o proctor

Research Article

Analysis of the Learning Curve of Surgeons without Previous Experience in Laparoscopy to Perform Robot-Assisted Radical Prostatectomy

**Felipe Monnerat Lott,¹ Deborah Siqueira,¹ Hermano Argolo,¹
Bernardo Lindberg Nóbrega,¹ Franz Santos Campos,¹ and Luciano Alves Favorito ²**

¹*Brazilian National Cancer Institute, Rio de Janeiro, Brazil*

²*Urogenital Research Unit, State University of Rio de Janeiro (UERJ), Rio de Janeiro-RJ, Brazil*

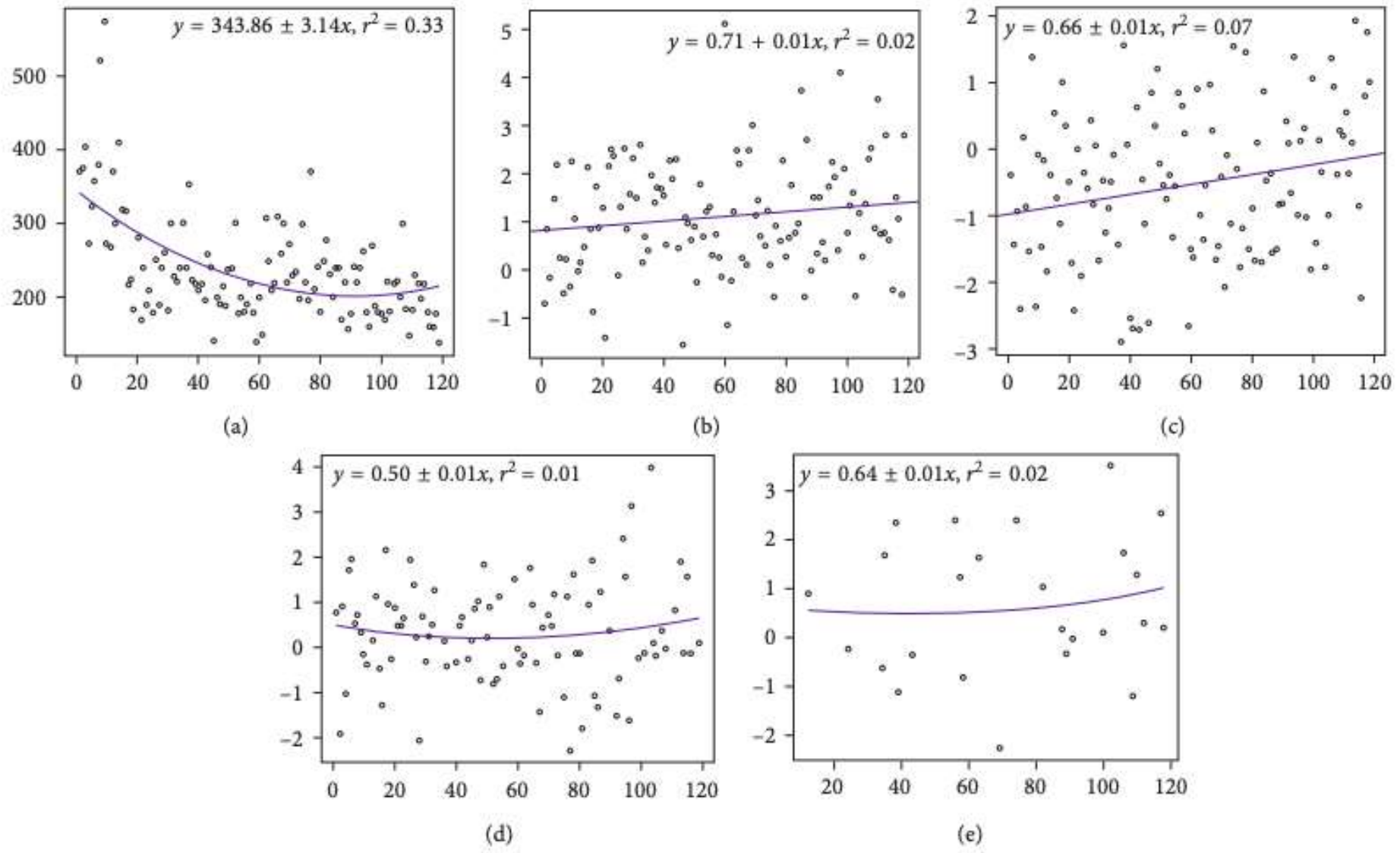


FIGURE 1: The figure shows the linear regressions of the learning curve along the series regarding the outcomes surgery time, urinary continence, and sexual potency 12 months after surgery, along with the multiple surgical margin rates. (a) Surgery time (in minutes–y axis) with progression of cases (number–x axis). The arrow marks the start of the performance of obturator lymphadenectomy, followed later by extended lymphadenectomy; $R^2 = 0.33$; (b) continence 12 months after surgery; the best results approach line 1, $R^2 = 0.06$; (c) erection 12 months after surgery; the best results approach line 1; $R^2 = 0.02$; (d) compromised surgical margins in pT2 cases; the best results approach line 1; $R^2 = 0.01$; (e) compromised surgical margins in pT3 cases; the best results approach line 1; $R^2 = 0.02$.

6. Conclusion

Our results and their comparison with other reports in the literature demonstrate that the learning curve for robot-assisted radical prostatectomy is extended, not reaching a plateau with fewer than 100 surgery cases, despite the progressive improvement during the course of the series and the good general results.

In light of the very long learning curve, we recommend regionalization of prostate cancer treatment because surgeons with a larger number of cases under their belts reduce the hospital expenses by lowering the rates of complications and costs for adjuvant treatments.

FELLOWSHIP
EM URO-ONCOLOGIA
2021



Inscrições on-line de 01 de outubro a 30 de novembro de 2020 no site:
www.ibgpconcursos.com.br



12 anos de certificação

> 1000 cirurgias

4 proctorias por semana

FELLOWSHIP

EM URO-ONCOLOGIA

2021



Inscrições on-line de 01 de outubro a 30 de novembro de 2020 no site:
www.ibgpconcursos.com.br



↑ 30% inscrições

↑ 50% recursos

↓ 90% reclassificação

FELLOWSHIP EM URO-ONCOLOGIA 2021



Inscrições on-line de 01 de outubro a 30 de novembro de 2020 no site:
www.ibgpconcursos.com.br



Da Vinci Xi

2 consoles no cc.

↓ 51% tempo cirúrgico

8,6% → 1,5% (compl.)

Morgan MSC, Shakir NA, Garcia-Gil M, et al. Single-versus dual-console robot-assisted radical prostatectomy: impact on intraoperative and postoperative outcomes in a teaching institution. World J Urol 2015;33(6):781-6.

**1 console de treinamento
fora do cc**



Robotic Surgery Training Current Trends and Future Directions



Robert S. Wang, MD, Sapan N. Ambani, MD*

Urol Clin N Am 48 (2021) 137–146

<https://doi.org/10.1016/j.ucl.2020.09.014>

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SUMMARY

Now is a critical period for robotic surgery education. Resources and references are in abundance, and the need for structured training has never been greater as the ability to perform robotic surgery has become a core competency for urology trainees. Advances in computing power and hard-



Obrigado pela atenção!

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@lottfelipe