Radical prostatectomy outcomes in Germany: an analysis of a surgeon independent database of 20.067 patients subjected to open, laparoscopic and robotic assisted procedures

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OBJECTIVES

Aim of the study was to document trends in radical prostatectomy (RP) employment in Germany and to examine differences in morbidity and (ORP), mortality between open (LRP) robotic laparoscopic and assisted RP (RARP).

35.000 30.000 25.000 20.000 15.000 10.000

MATERIALS & METHODS

Data on RP operations performed in the German health care system during a 3 year period (2010-2012) were retrieved from the database of AOK (Allgemeine Ortskrankenkassen) insurance company. AOK is one of the in companies largest insurance covering almost 1/3 of Germany, population. Evaluated German parameters were patient demographic information, 30 mortality, day transfusion perioperative and complication rates, as well as one year reintervention rates.

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80,0 70,0 60,0 50,0 40,0 30,0 20,0







	Open	Lap	Robotic		
	14.741	2.831	2.495		
	65.9	65.5	64.2		
	(40–87)	(41–80)	(56–73)		
ode	85.9%	62.6%	85.5%		
	(12.658)	(1.773)	(2.132)		
s)					
	41.8%	41.8%	58.2%		
	(6.160)	(1.184)	(1.451)		
5)					

Descriptive statistics of AOK 2010-2012 RP patients. Please note that lap approach was associated with lower employment of PLND and that robotic assisted with higher employment of nerve sparing procedures.

	OR	95% CI lower	95% CI upper
)			
Lap	0.22*	0.17*	0.30*
Robotic	0.18*	0.13*	0.25*
1y)			
Lap	0.69*	0.55*	0.85*
Robotic	0.57*	0.45*	0.72*
ions (30d	l)		· · ·
Lap	0.90	0.68	1.20
Robotic	0.94	0.71	1.26
ations (1y	7)		·
lap	0.45*	0.37*	0.53*
robotic	0.41*	0.34*	0.49*
ificant di	fference	S	

Multivaried analysis: Approach stratified adjusted risk of complications. OR: odds ratios. Minimally invasive approaches had lower risk for 30d tranfusion, 1y reintervention and 1y overall complications.

Mortality (30 **Transfusion** Reinterventi **Other compl** (30d) **Overall comp**

(1y)

Unadjusted complication rates in AOK patients (2010-2012). Minimally invasive approaches demonstrated a superior safety profile.

Multivariate revealed analysis that increased age, presence of comorbidities and PLND increased the incidence of transfusion, complication and 1y reintervention rates while a nerve sparing approach appeared protective in terms of lowering the risk for transfusion and 1y reintervention rates.

The use of minimally invasive approaches in RP (laparoscopic and robotic assisted) is increasing during the years 2005-2012 in Germany and their implication has a positive impact in the morbidity of the operation.



	Open	Lap	Robotic
) Dd)	0.18%	0.21%	0.04%
(30d)	12.36%	3.80%	2.57%
on (1y)	10.07%	7.38%	6.23%
ications	5.36%	3.93%	4.58%
plications	23.49%	13.39%	11.96%

CONCLUSIONS

