ICACT
21ST INTERNATIONAL CONGRESS ON ANTICANCER TREATMENT

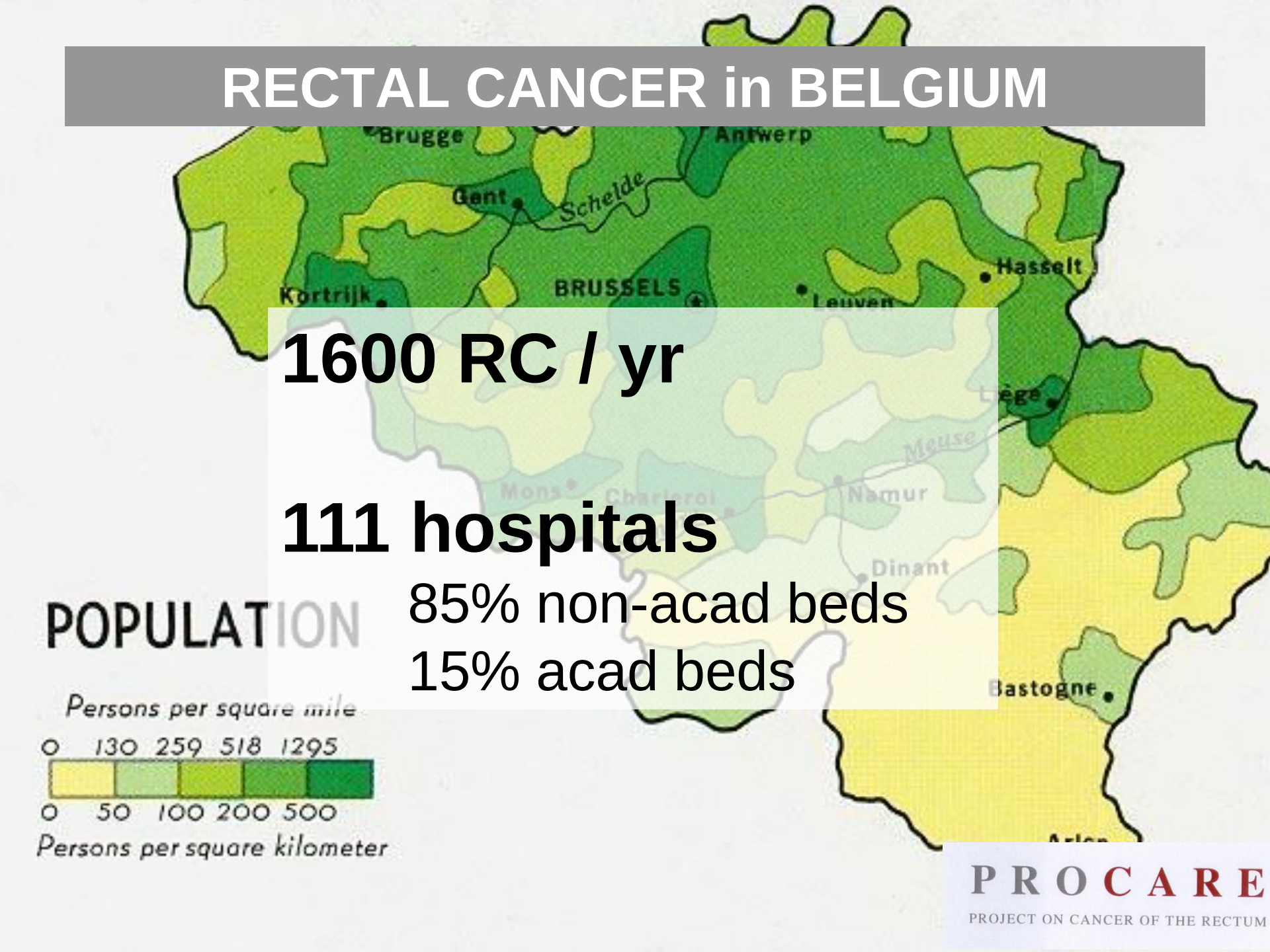
ACADÉMIE NATIONALE DE CHIRURGIE

4th International Seminar of
Surgical Oncology
Paris February 5th 2010

How to improve national level of rectal cancer surgery: PROCARE project

Penninckx F, on behalf of PROCARE

RECTAL CANCER in BELGIUM



1600 RC / yr

111 hospitals

85% non-acad beds

15% acad beds

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Public Health in Belgium

Authorities

↓

mutualities (insurer)
very limited control

Physicians

independent > employee
high N, low vol., competition

Public

Mandatory health insurance
Free choice
Reimbursement

Med – Mut consensus

annual

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improve outcome & reduce variability

for <u>all</u> stages of RC

- **Multidisciplinary (teams)**
- **National, all centers/teams**
- **Profession-driven**
- **Voluntary participation**
- **Educational not repressive (confidentiality)**

PROCARE METHODS

- multidisc. EB **Guidelines and QCI** (2007, 2008)
- quality assurance (**implementation** of GL)
  - training (radiology, RT, TME, pathology)
  - registration of 151 items (>1/2006)
  - feedback / benchmarking (2008, 2009)

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CANCER
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Quality of Care Indicators : 40
PROCARE vs. ADMINISTRATIVE DATABASES

	PROCARE	ADMIN
General (level 1)	3	2
Diagnosis and staging	7	2
Neoadjuvant treatment	7	1
Surgery	6	3
Pathology	6	0
Adjuvant treatment	5	0
Follow-up	3	0
Palliative treatment	2	1
	39	**9**

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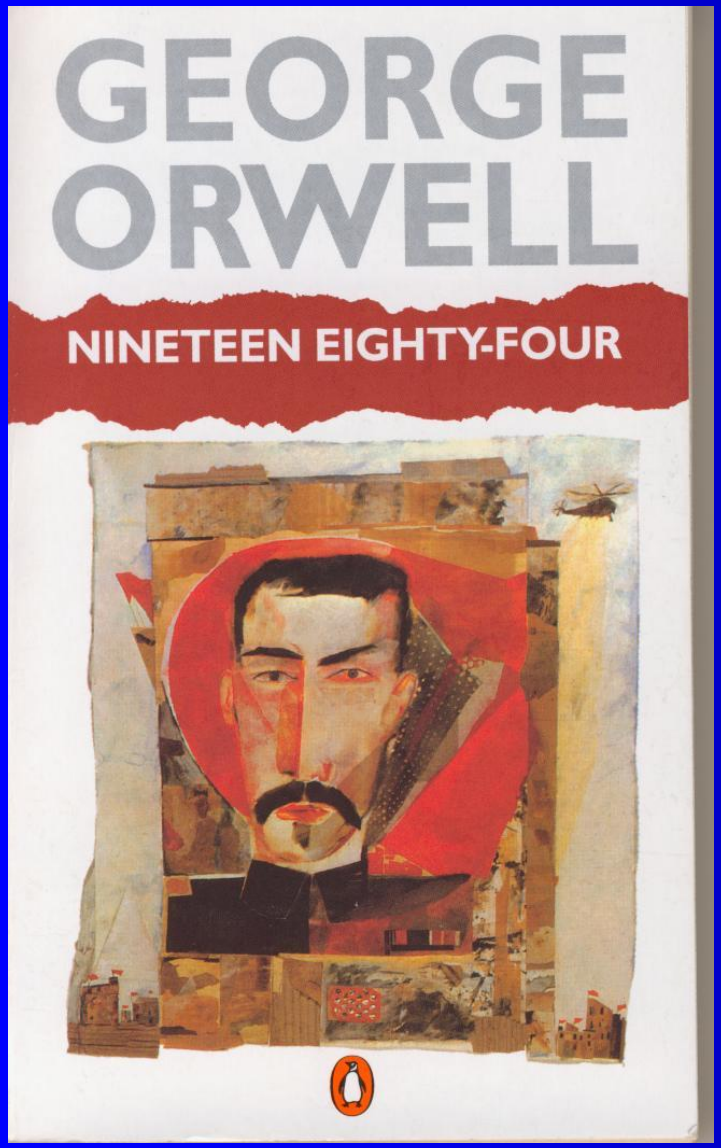
Big Brother …

the cancer police …

the public …

is watching you



à la Une < Le Nouvel Observateur Spécial Classement 2009-2010 : Hôpitaux et cliniques < Régions

Le classement des hôpitaux 2009-2010 — Rechercher

Rechercher par : Région | Spécialité | Pathologie | Etablissement | Département

TOP 5 : > Sud-ouest > Sud-est > Nord-est > Nord-ouest > Ile-de-France > Outre-mer > Toute la France

CHIRURGIE DU CANCER COLORECTAL > choisir une autre pathologie

Rang	Nom de l'établissement	Privé / public	Département	Ville
1	HOPITAL BEAUJON(AP-HP)	Public	92	CLICHY
2	CLINIQUE J VERNE POLE HOSP MUTUALISTE	Privé sans but lucratif	44	NANTES
3	CENTRE REG LUTTE CONTRE LE CANCER	Privé sans but lucratif	34	MONTPELLIER
4	CHU DE BORDEAUX	Public	33	BORDEAUX
4	INSTITUT MUTUALISTE MONTSOURIS	Privé sans but lucratif	75	PARIS
6	GRP HOSP DIACONESSES CROIX ST SIMON	Privé sans but lucratif	75	PARIS
7	CLINIQUE MATHILDE	Privé	76	ROUEN
8	POLYCLINIQUE DE POITIERS	Privé	86	POITIERS
9	CHU STRASBOURG	Public	67	STRASBOURG
10	HOPITAL AMBROISE PARE(AP-HP)	Public	92	BOULOGNE BILLANCOURT
11	CH PRIVE ST GREGOIRE	Privé	35	SAINT GREGOIRE
11	CHU TOULOUSE	Public	31	TOULOUSE
11	HOPITAL ST ANTOINE(AP-HP)	Public	75	PARIS
14	POLYCLINIQUE DE COURLANCY	Privé	51	REIMS
15	CLINIQUE DU PRE	Privé	72	LE MANS

FUNDING
for
training and
central data registration

Belgian Federation against Cancer (2006)

KCE

RIZIV / INAMI (2007 – 2012)

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TRAINING

- **PRETREATMENT STAGING (radiologists)**
  - central review CT / MRI images 2010
- *RADIOTHERAPY*
- **TME** : 177 / 225 surgeons interested (2005)
  - 43 candidate-trainers → 25 trainers (18 NL / 7 FR)
  - 6 trained (since 8/2008)
- **PATHOLOGY**
  - TME reviews from candidate trainers
  - > 11/2009 TME review ad random (44% adeq. material)

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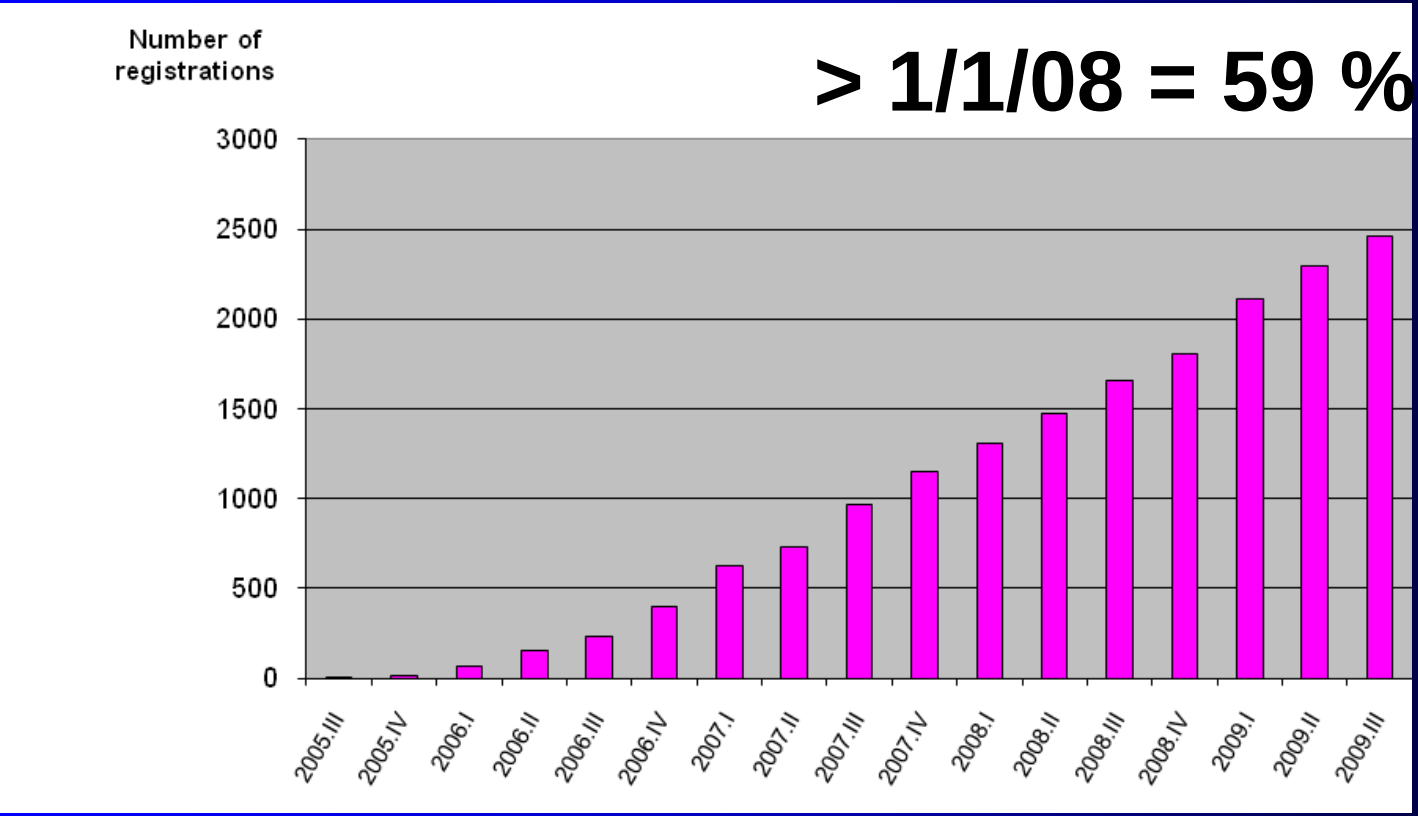
2947 patients registered (Dec 4 2009)



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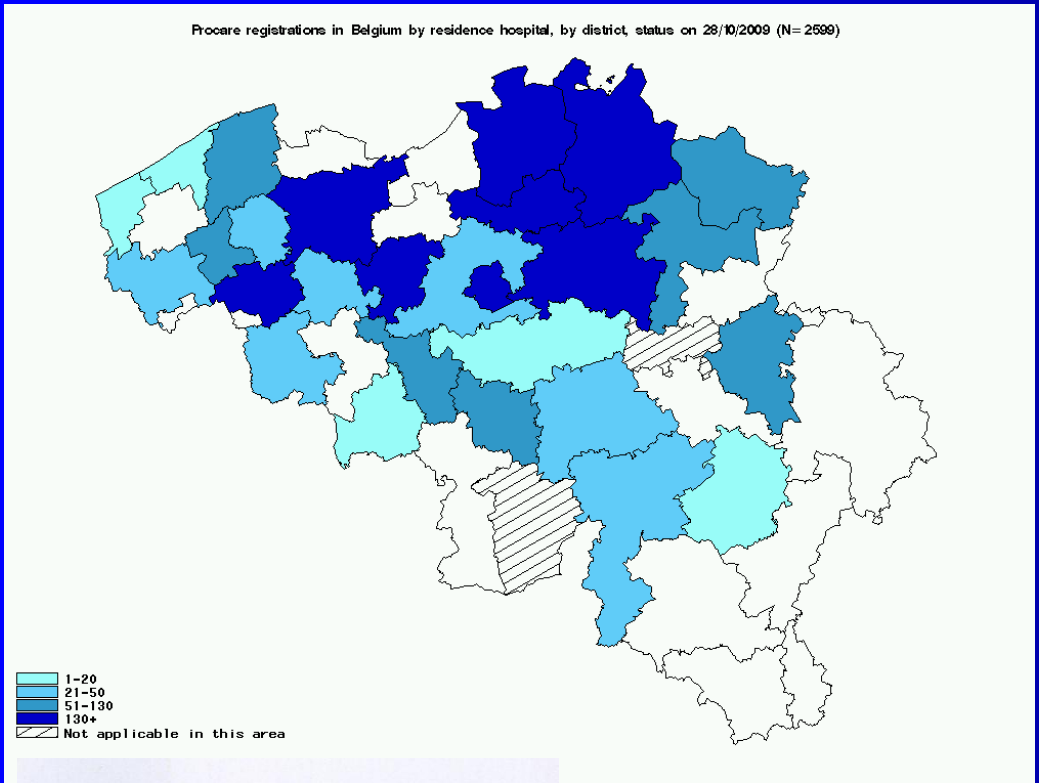
Who submitted patients ?

70 / 111 = 63 % hospitals



West Vlaanderen	12/14
Oost Vlaanderen	7/14
Antwerpen	19/19
Limburg	6/ 8
Vlaams Brabant	4/ 6
Brussel/Bruxelles	9/14
Brabant Wallon	1/ 2
Hainaut	7/16
Namur	2/ 6
Liège	2/11
Luxembourg	1/ 3

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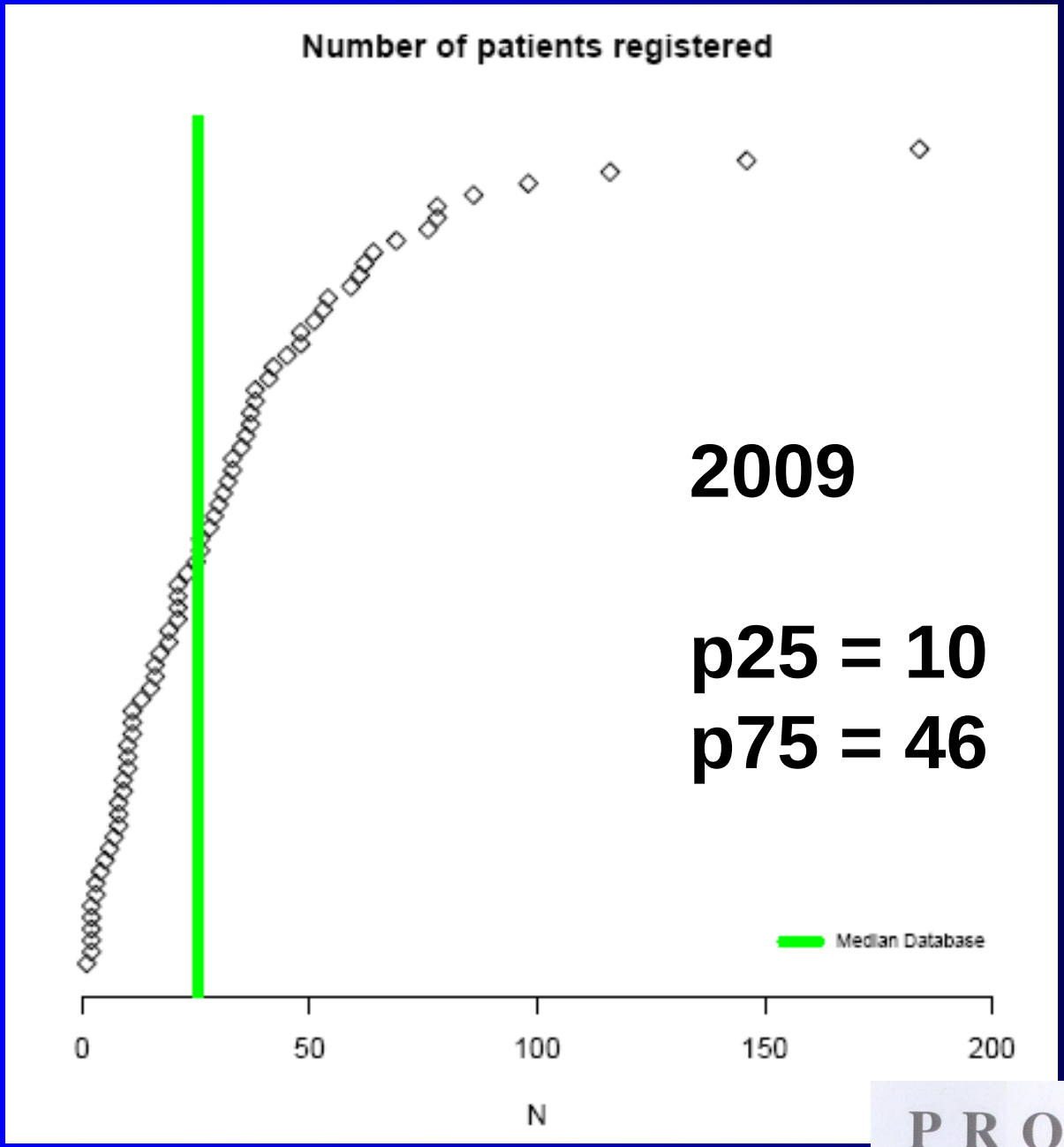

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Analysis for second feedback

N patients	2439
Male/Female (%)	61/39
Age (mean yrs)	68
Lower level of tumour	
High (>10 cm)	17.7%
Mid (>5 - ≤ 10 cm)	38.4%
Low (≤ 5 cm)	43.9%

PME 15.8 %

TME 83.4 %

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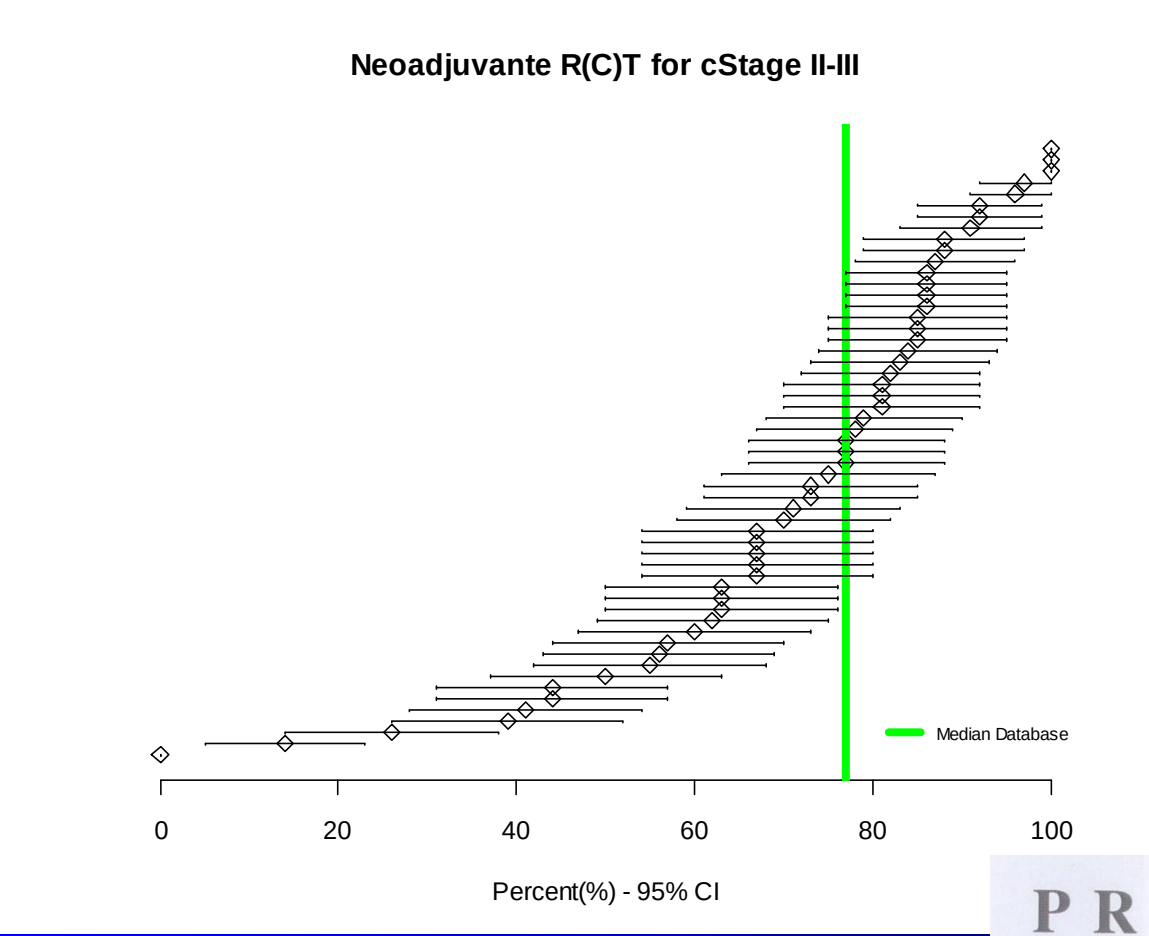
Neoadjuvant (chemo)radiotherapy for cStage II or III (if > 10 pts)



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Surgery

	N your hospital	%your hospital	N Procare	%procare	p25	median	p75
APPROACH RESECTION IF RADICAL							
-> Resection by Laparotomy	162	91.5	1526	71.5	59.1	90.2	100
-> Resection by Laparoscopy	12	6.8	531	24.9	0	7.1	33.3
-> Resection by converted Laparoscopy	3	1.7	77	3.6	0	0	2.6
-> Missing data on approach for radical resection	0	0	11	0.5	0	0	0

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Surgery (1)

Elective/scheduled	98.1 %
R0 after radical resection	**75.7 %**
R1 after radical resection	**10.4 %**
R2 after radical resection	13.9 %
Rectal perforation	**7.7 %**

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	1	2	3
ASA 1	19	**55**	5
ASA 2	67	38	47
ASA 3	14	7	**48**
In hosp mortality	0.6	1.8	0

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Surgery (2)
Type of resection and reconstruction

Local excision/TEM	1.3 %	28
APER/Hartmann	**22.2 %**	**470**
AR + CRA	21.5 %	454
TME + CAA	54.3 %	1148
Other types of resection	0.5 %	11
	100 %	2111
Missing data	6.4 %	145

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GUT

Unacceptable variation in abdominoperineal excision rates for rectal cancer: time to intervene?

E Morris, P Quirke, J D Thomas, et al.

Gut 2008 57: 1690-1697 originally published online June 5, 2008

Rectal cancer surgery: is restoration of intestinal continuity the primary aim?

C R Selvasekar, G David, D J Corless, et al.

Gut 2009 58: 311

Statistics, damned statistics and time to intervene

N A Scott, P Sagar and and the 30 co-signatories listed below

We question the underlying agenda of this type of publication. It is our collective view that incomplete data, naive reasoning and flawed conclusions neither represent good science nor promote and protect the health of patients.

quality. In addition, inferring surgical excellence from low APE rates without adjusting for factors such as tumour height and stage may lead to inappropriate conclusions. Despite considerable efforts by Morris *et al*, this work was unable to adjust these data fully for such confounding factors, demonstrating that the necessary infrastructure to achieve this is not currently available in the UK at the national level. Therefore, APE rates in isolation are unlikely to be a useful benchmark to audit surgical performance at present.

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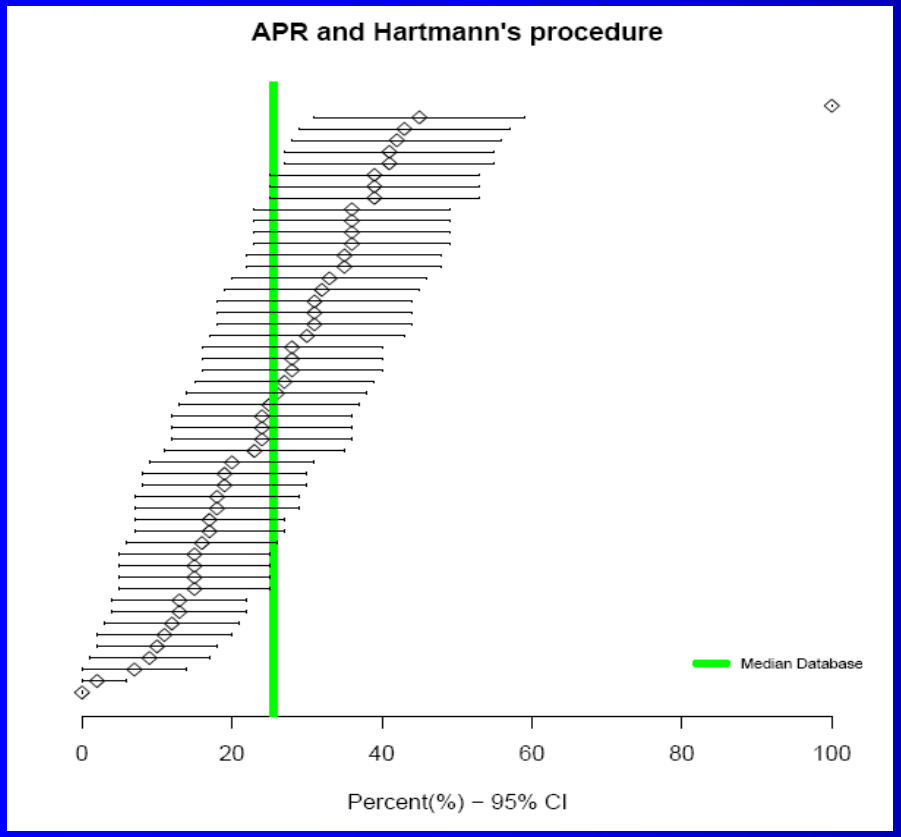
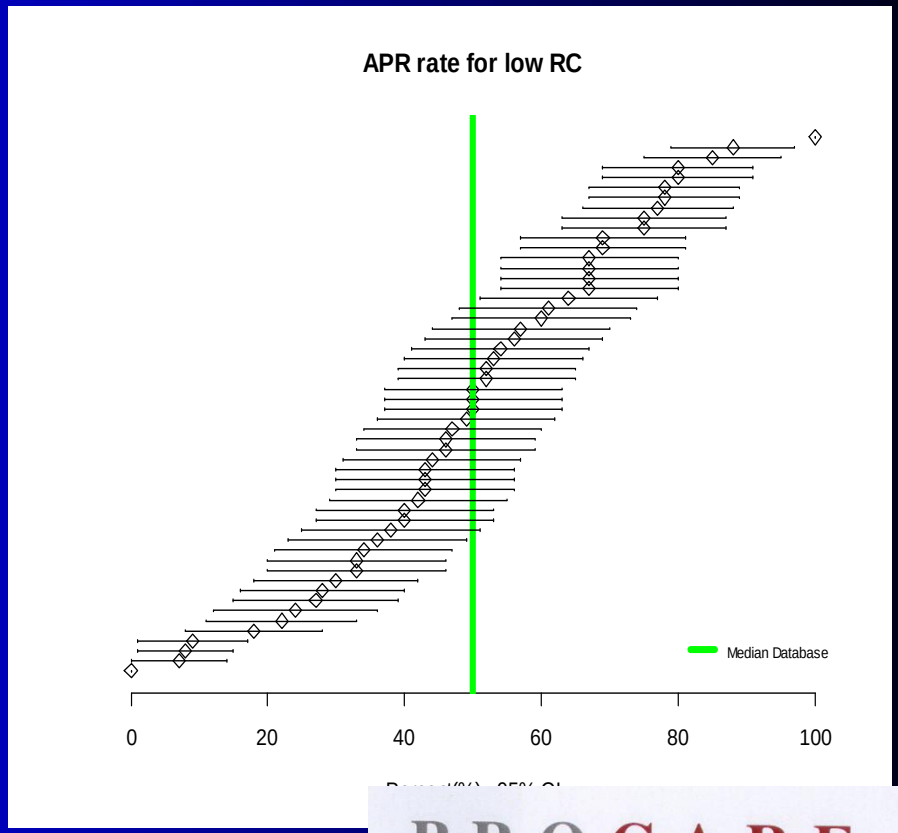
APR and Hartmann (2009)

0 – 15 cm



0 – 5 cm



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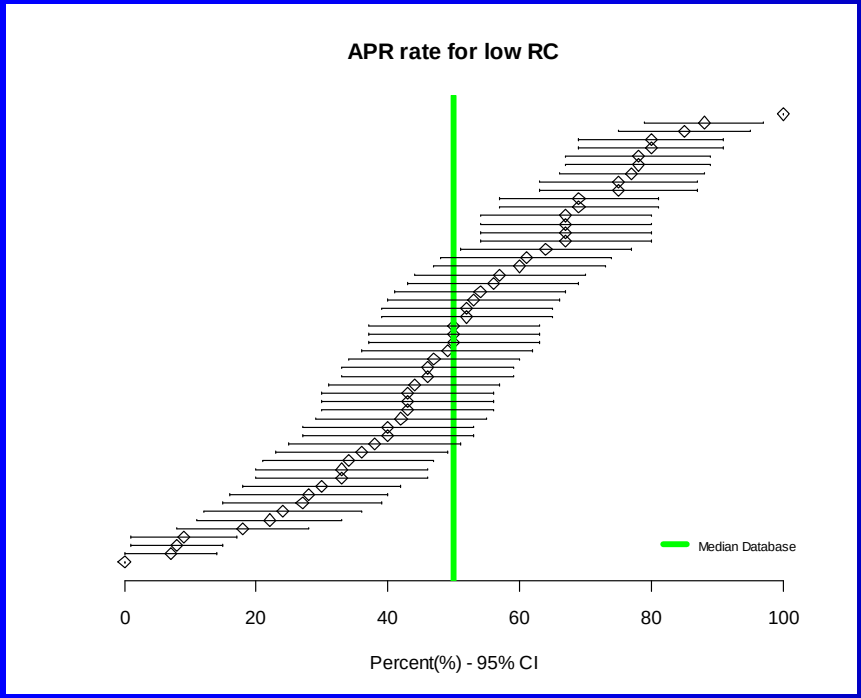
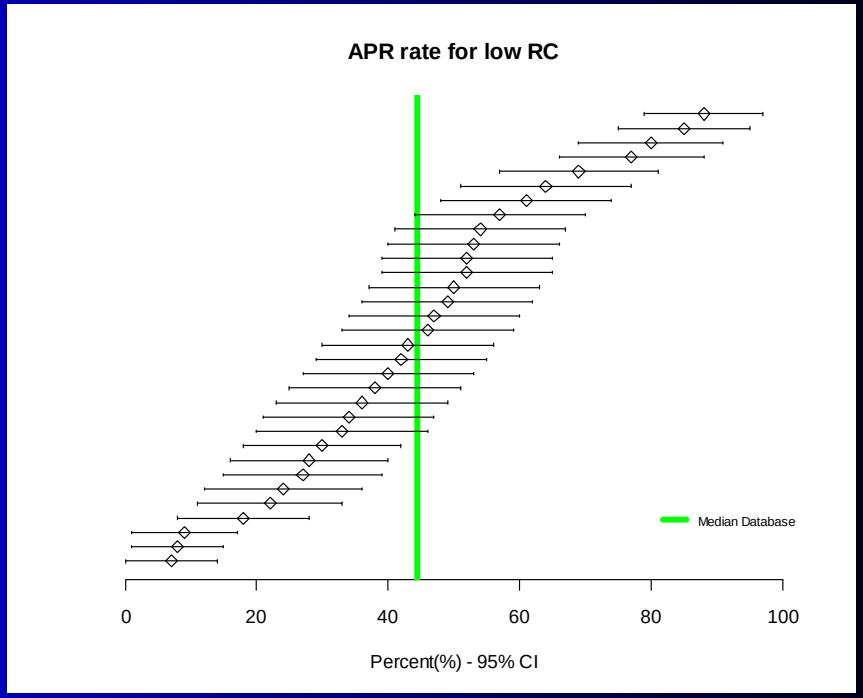
APR and Hartmann (2009) for rectal cancer at 0 – 5 cm

Teams > 10



Teams > 30



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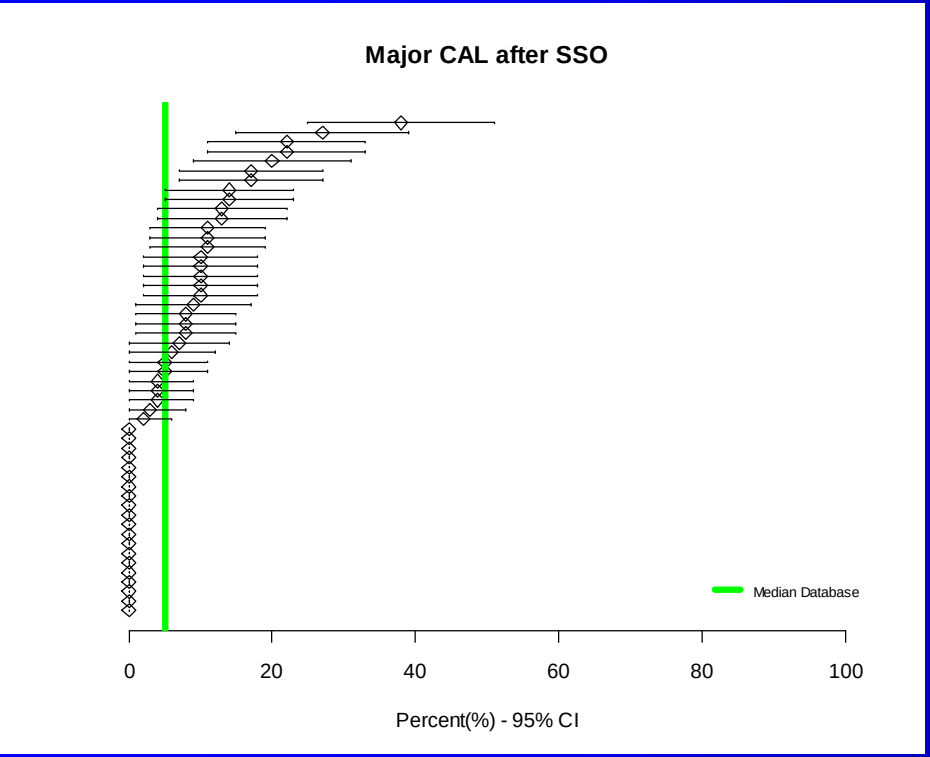
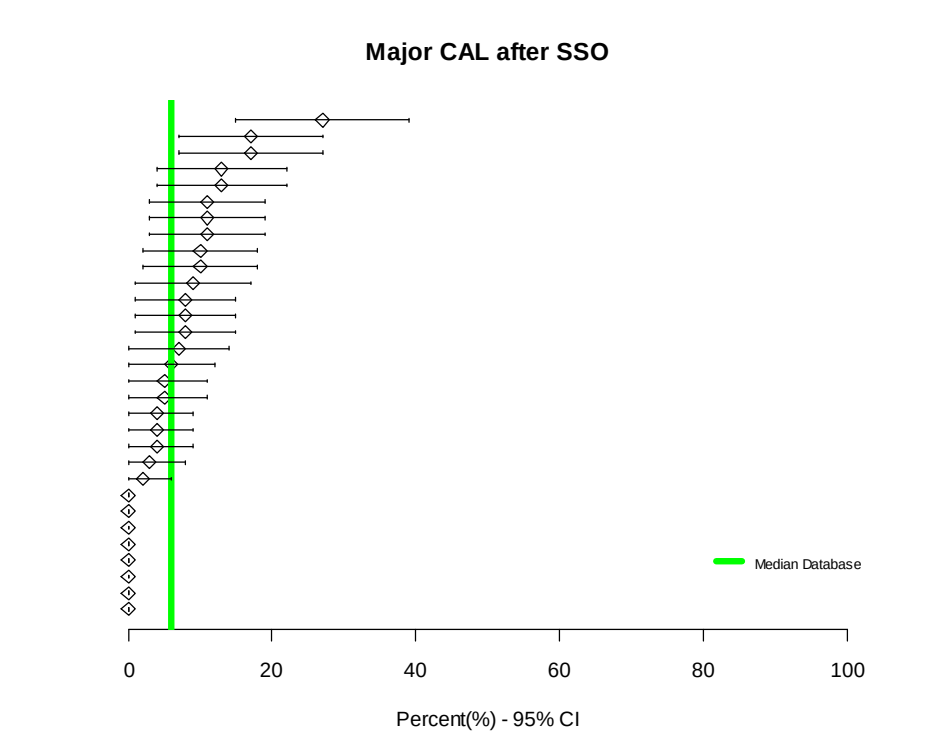
Major leak after SSO with/without DS

> 10



> 30



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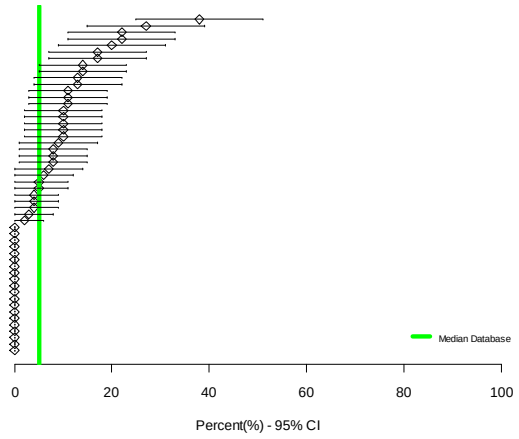
Major leak after SSO (if > 10 pts)

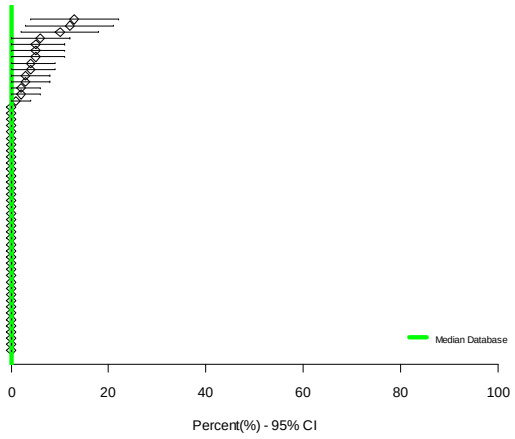
64 %

no DS



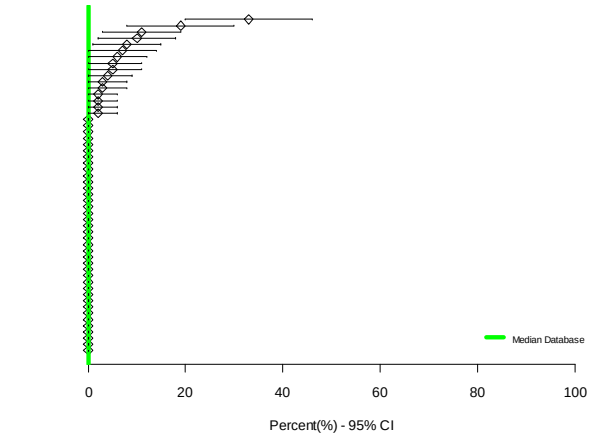
9.5 % leak

selective DS



36 %

routine DS



5.5 % leak

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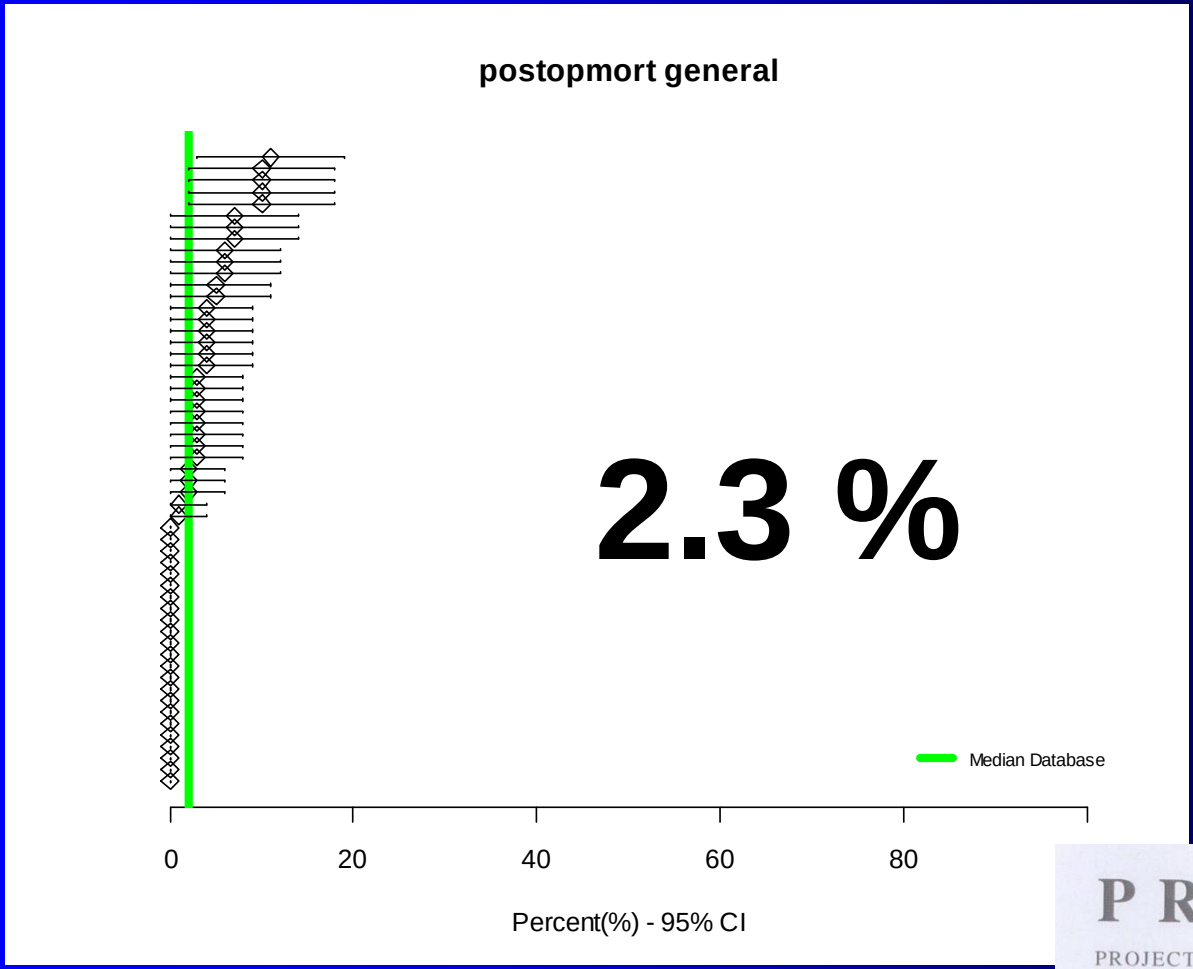
In hospital mortality after elective radical resection (if > 10 pts)



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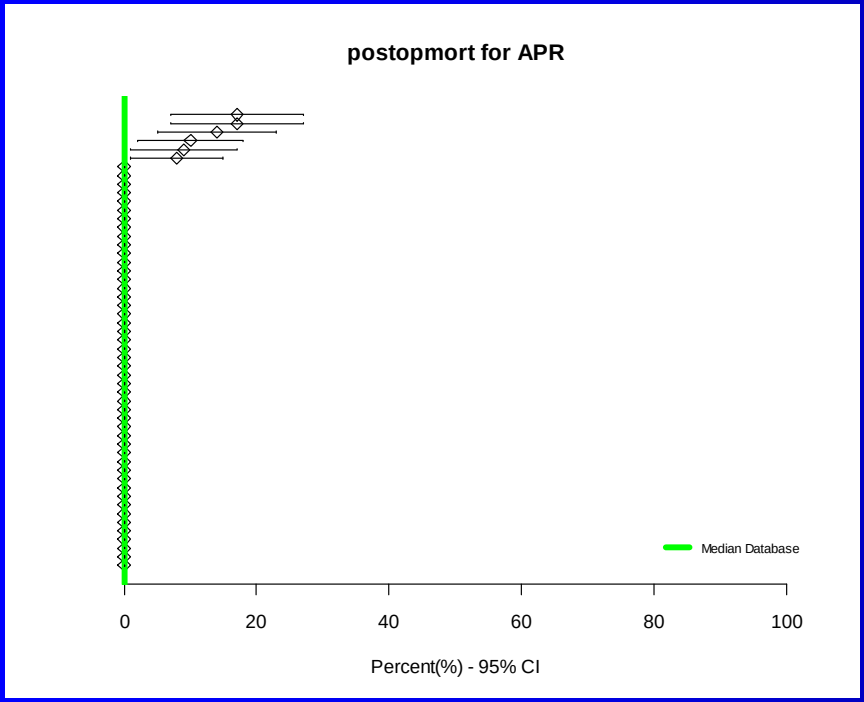
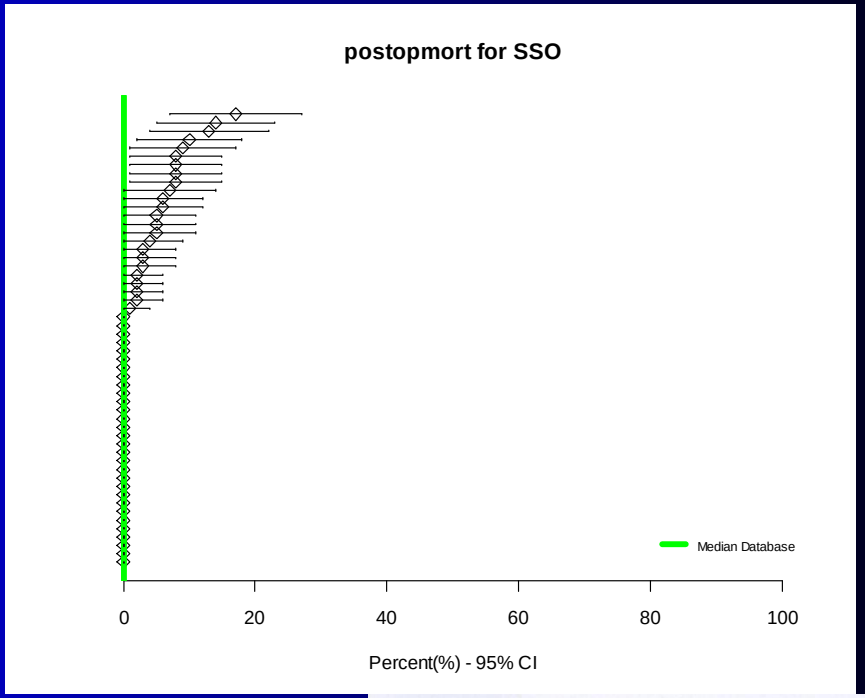
In hospital mortality after elective radical resection (if > 10 pts)

after APR



after SSO



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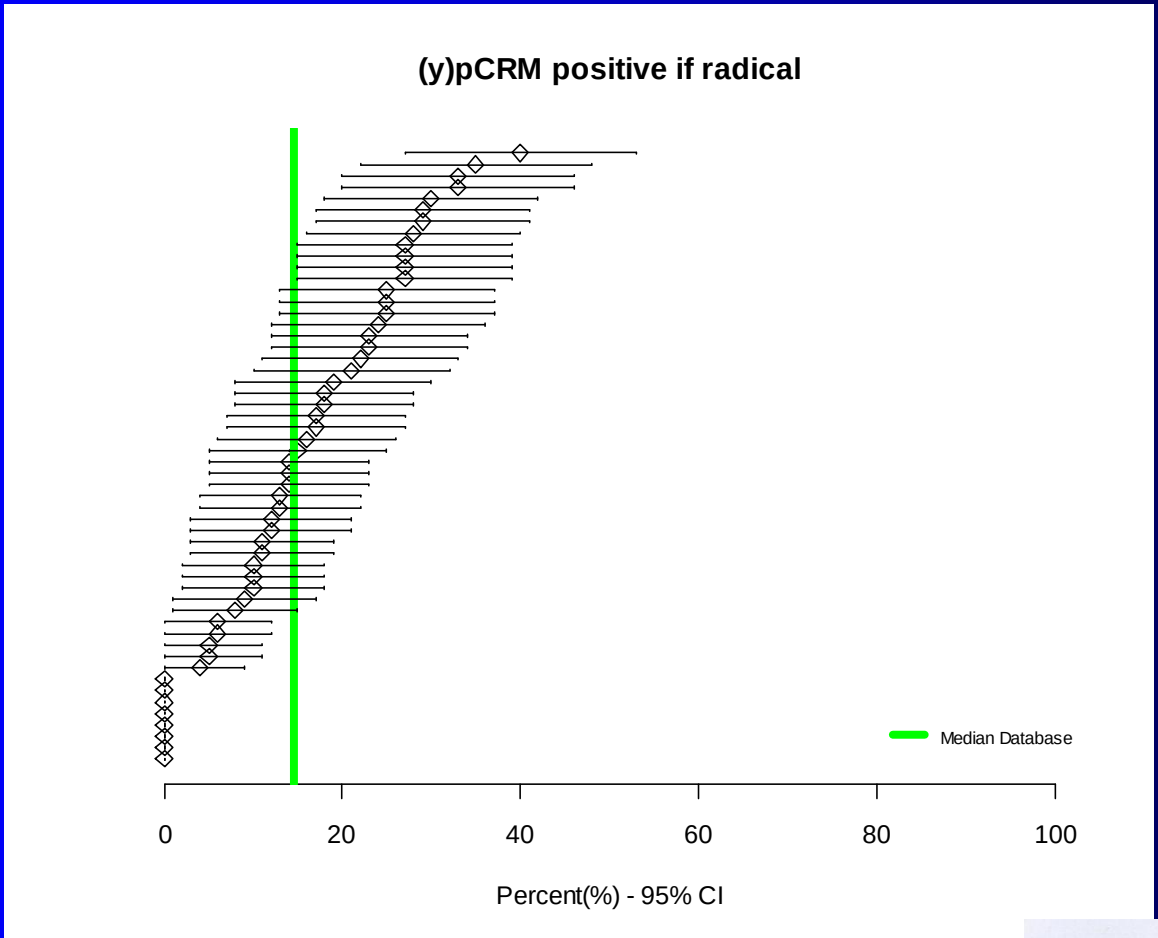
Positive (y)pCRM after elective radical resection (if > 10 pts)



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The project - CONCLUSIONS

- Profession-driven = voluntary participation
- Educational (re-action) not repressive (sanction)
- Multidisciplinary = teams, not individuals
- Open for all teams at any time
- Funding (government)
- Risk adjusted benchmark (peers, statisticians)
- Evolution of ‘performance’
- Definition of targets / outliers (clinical > statist.)

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What ‘target value’ for improvement ?

Median with CI 95%: mediocre progress

The ‘top 10’ teams ? with CI 95% or CI 90% ?
For every QCI or for a set of QCIs ?

How to improve in the ‘top 10’ ?

Statistical vs clinically relevant targets/differences

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The participating teams - CONCLUSIONS

- Burden of registration (web application)
- Motivation of all team-players (intention vs practice)
- Quality of data (application of definitions, …)
- Completeness of ‘data’ (patients, data, follow-up)
- Fear for audit (‘slow’ but progressive particip.)
- Educational risk-adjusted benchmark with re-action
- Improvement always possible (low & high vol.)

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1513
AD


N P. CRANE