



Centro di Riferimento per l'Epidemiologia
e la Prevenzione Oncologica in Piemonte

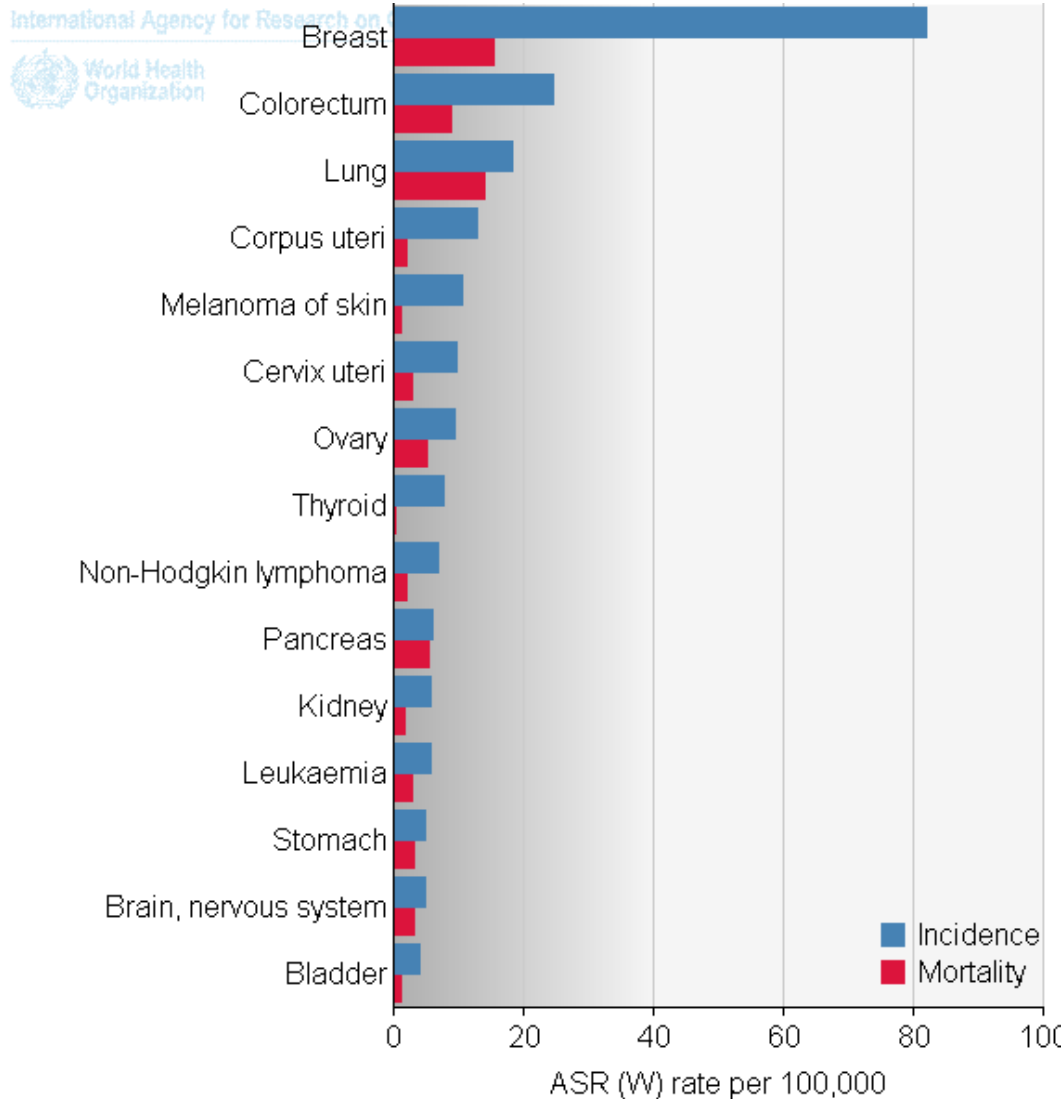
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Audit clinico di popolazione sulla gestione del tumore ovarico in Piemonte: risultati preliminari dello studio COROP

Pagano E., Sobrero S., Zanetti R., Patriarca S., Bertetto O., Zola P., Ciccone G.

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OVARIAN CANCER: INCIDENCE AND MORTALITY



Ovarian cancer is the second most common gynecological cancer and the fourth most common cause of cancer death in women in European countries (*GLOBOCAL 2012*)

OVARIAN CANCER: SURVIVAL

Cancer survival in Europe 1999–2007 by country and age: results of EURO CARE-5—a population-based study



Roberta De Angelis, Milena Sant, Michel P Coleman, Silvia Francisci, Paolo Baili, Daniela Pierannunzio, Annalisa Trama, Otto Visser, Hermann Brenner, Eva Ardanaz, Magdalena Bielska-Lasota, Gerda Engholm, Alice Nennecke, Sabine Siesling, Franco Berrino, Riccardo Capocaccia, and the EURO CARE-5 Working Group*

Summary

Background Cancer survival is a key measure of the effectiveness of health-care systems. EURO CARE—the largest cooperative study of population-based cancer survival in Europe—has shown persistent differences between countries for cancer survival, although in general, cancer survival is improving. Major changes in cancer diagnosis, treatment, and rehabilitation occurred in the early 2000s. EURO CARE-5 assesses their effect on cancer survival in 29 European countries.

Lancet Oncol 2014; 15: 23–34

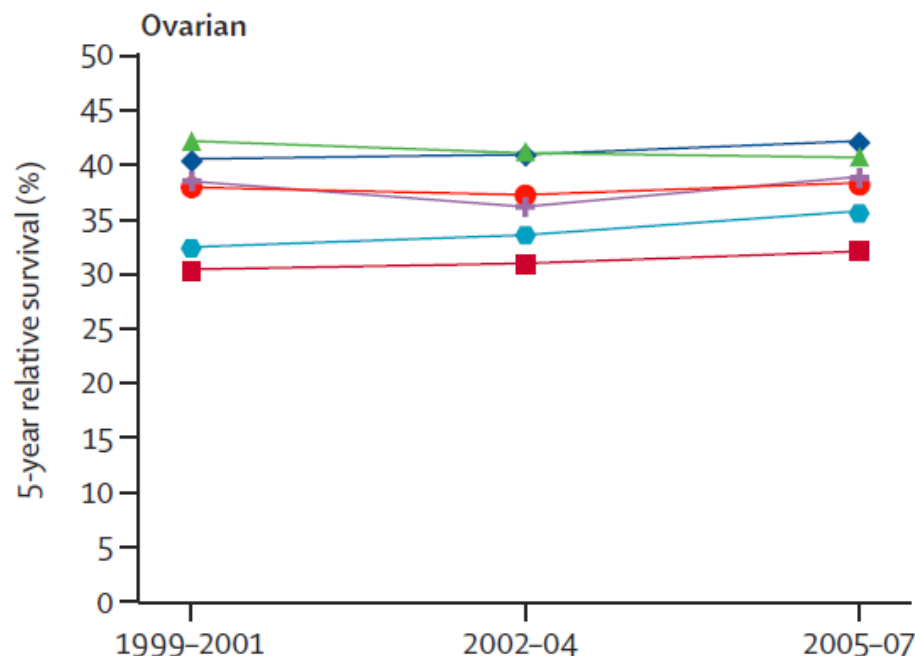
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- European mean age-standardised 5-year survival was low (37,6%, 95% CI 37,1–38,0) and survival did not change significantly over time Europe overall

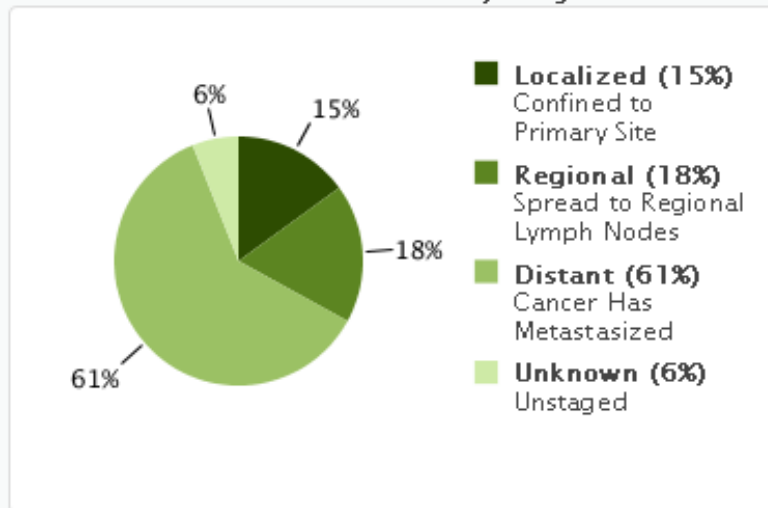


OVARIAN CANCER: STAGE AT DIAGNOSIS

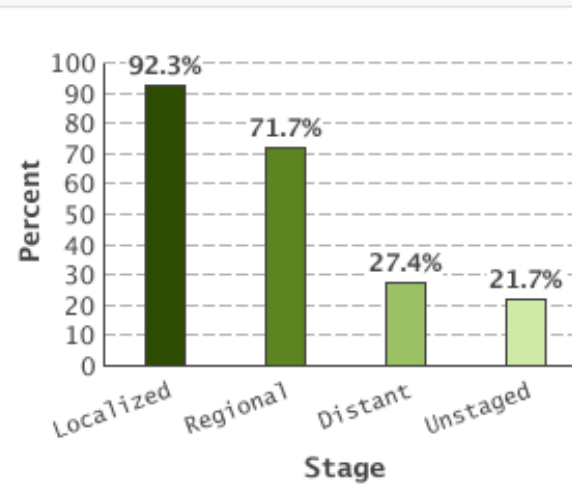
- Prognosis for early-stage disease cases is relatively favorable
- Most women with ovarian cancer are diagnosed with advanced stage disease, with poor prognosis, due to lack of clear symptoms

Percent of Cases & 5-Year Relative Survival by Stage at Diagnosis: Ovary Cancer

Percent of Cases by Stage



5-Year Relative Survival



OVARIAN CANCER: CLINICAL EVIDENCE

- Appropriate surgical staging, maximum tumor cytoreduction, and appropriate chemotherapy have been shown to improve the overall survival
- Several recommendations in evidence-based clinical guidelines (CG):
 - Scottish Intercollegiate Guidelines Network (SIGN)
 - National Institute for Health and Care Excellence (NICE)
 - National Comprehensive Cancer Network (NCCN)
- Recent studies have identified a positive prognostic effect due to center specialisation
 - high volume, multidisciplinary, gynecologic oncologist, ...
- Never-the-less, clinical audits show high heterogeneity in clinical pathways and presence of sub-optimal treatment

STUDY AIM

- To perform a clinical audit on ovarian cancer treatment at Regional level, within the Piedmont Region Cancer Care Network (PRCCN)
- in order to:
 - describe patterns-of-care
 - assess the adherence to clinical guidelines
 - identify determinants of appropriateness of care
 - Identify relevant determinants of survival

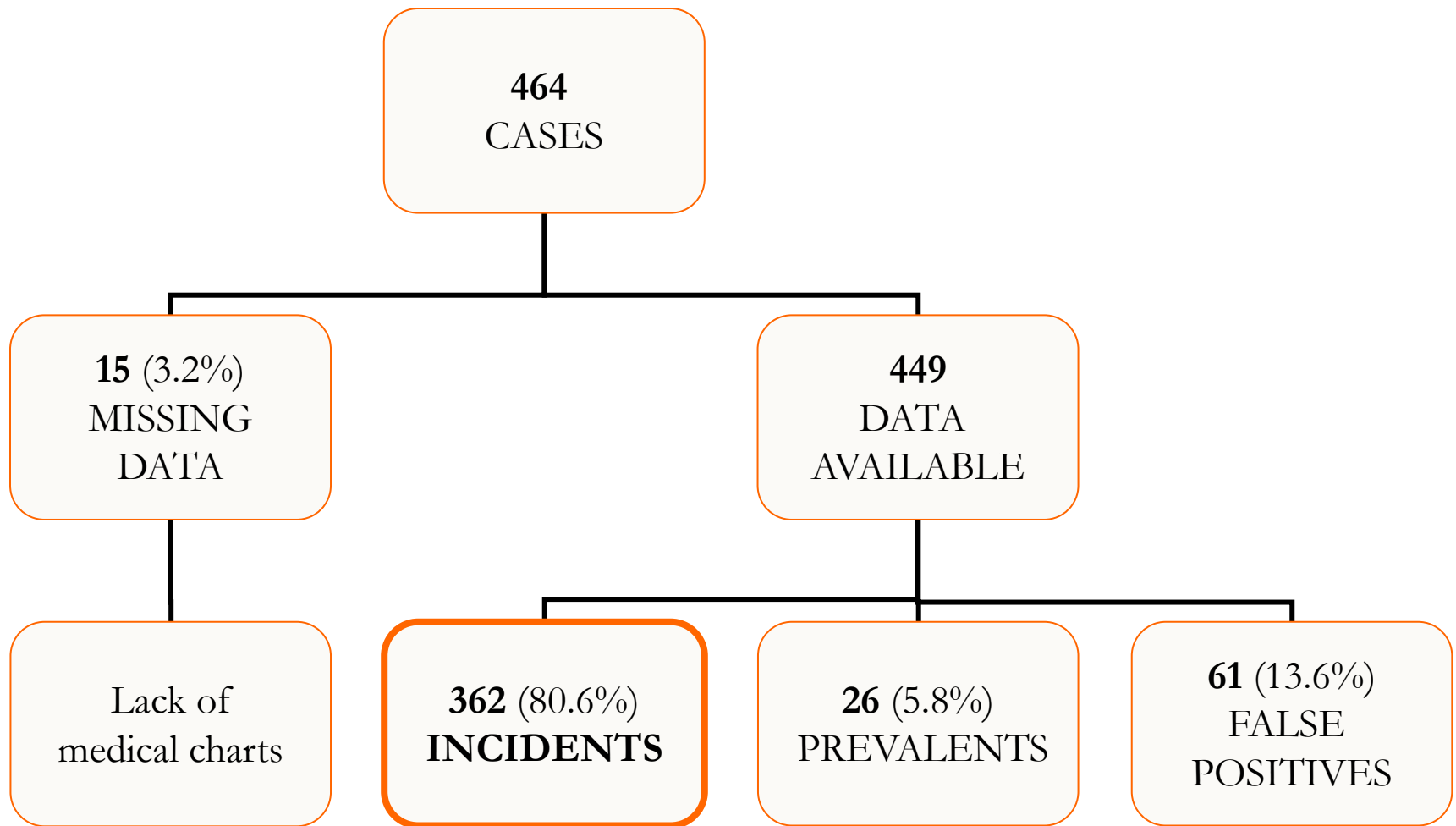
METHODS (1)

- COROP protocol: epidemiological observational retrospective multicenter study at population level
- Identification of incident cases among Piedmont residents in 2009 by HDRs (ICD-CM 183.0; 183.2; 183.9)
- Collection of all inpatient clinical records during 2 years after diagnosis
- Analysis of clinical records to fill the study CRF (clinical and treatment data)
- Vital status follow-up at 4 years (by NHS Register – AURA)

METHODS (2)

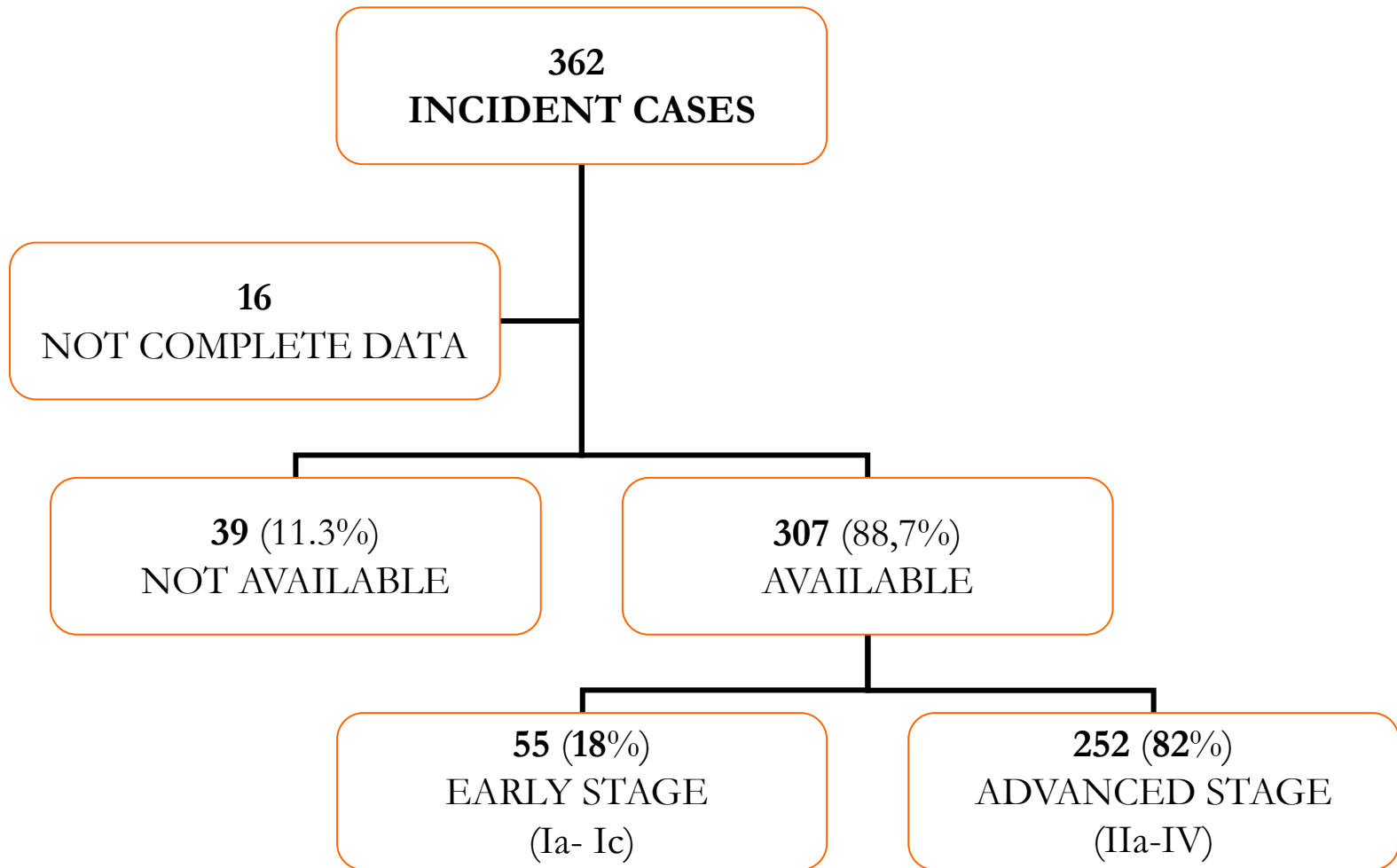
- Identification of treatment patterns-of-care
- Identification of standard of care from CGs:
 - for diagnostic tests, surgical practice and treatments by stage
- Classification of level of adherence of patterns-of-care to identified standards
- Analysis of determinants of appropriate patterns-of-care
 - multivariate logistic model (on cases surviving more than 4 months)
- Survival description and analysis of relevant prognostic factors for advanced stage patients
 - multivariate Cox model (on cases surviving more than 4 months)

RESULTS: incident cases identification



ALGORITHM PERFORMANCE: EXPECTED CASES 2012=353; VPP=80.5%

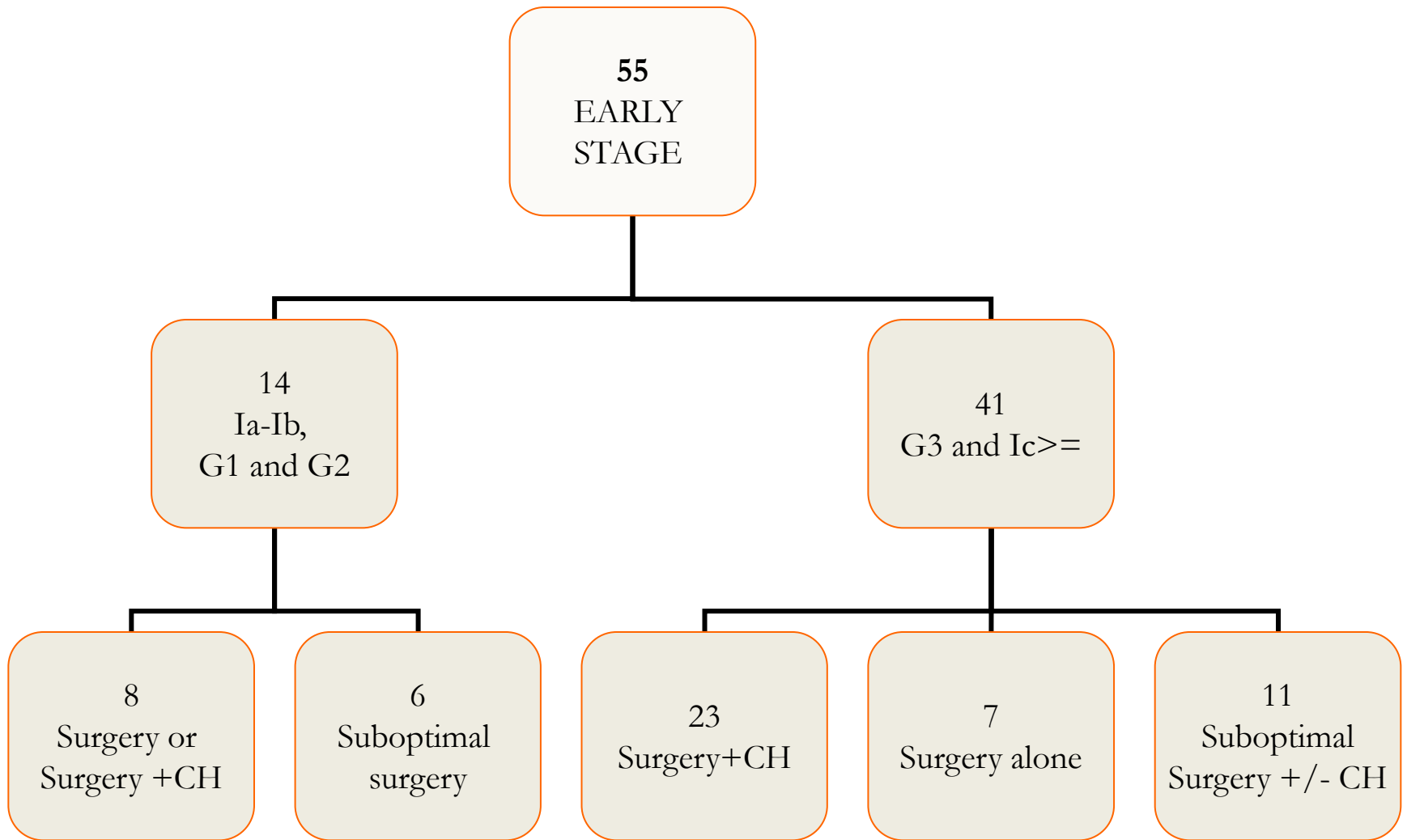
RESULTS: incident cases - FIGO stage



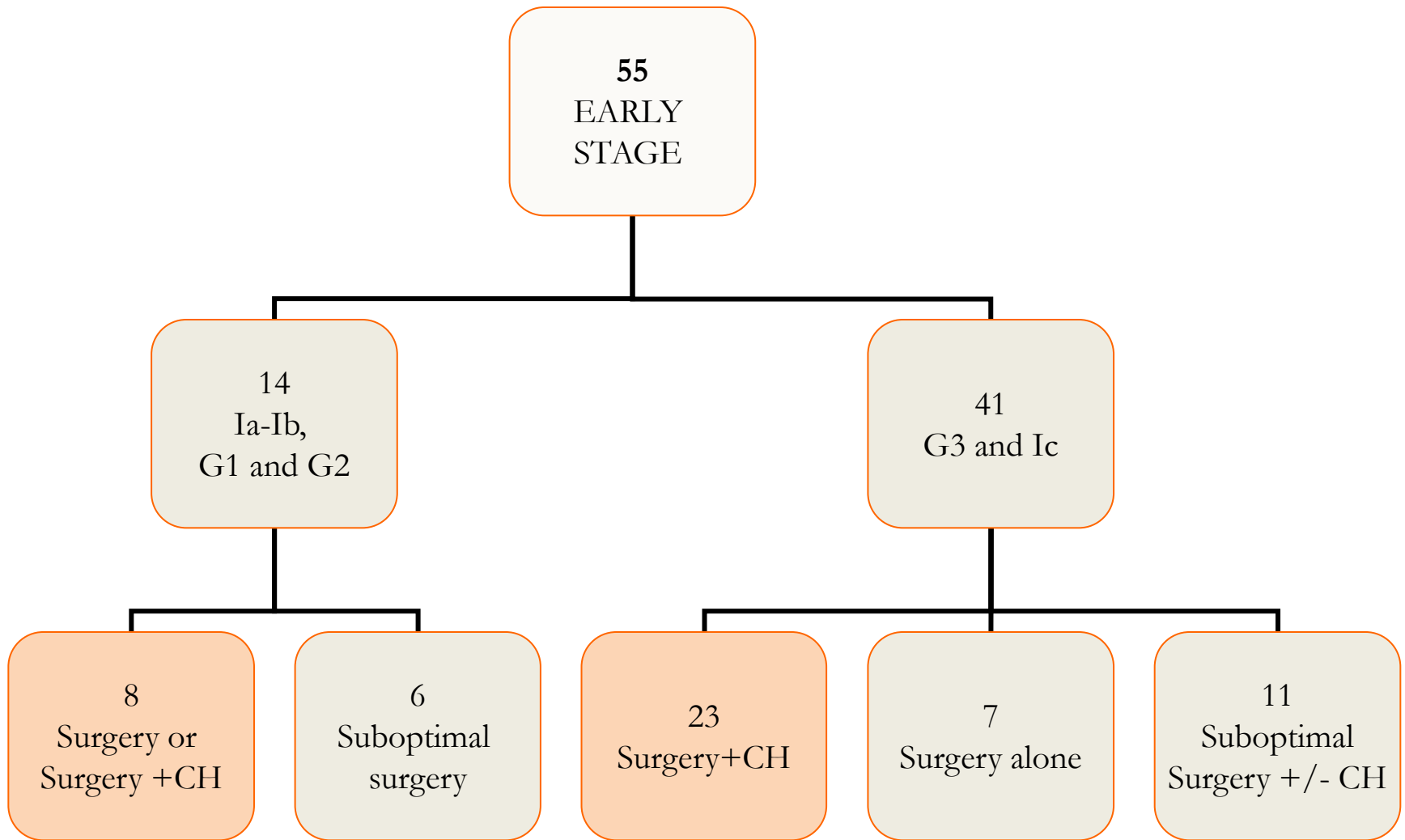
RESULTS: patients' data by FIGO stage

Variables	Early	Advanced	Not available
N	55	252	39
Mean age (SD)	60 (12)	66.8 (12.3)	75 (15.4)
Charlson Index ≥ 3	36%	50%	66.7%
PRCCN visits (within 3 months)	47.3%	35%	18%
Hospital volume (%):			
>100	15	25	5.1
50 -99	13	21	10.3
25-49	29	18	20.5
<25	34	30.5	59
Other Regions	9	5.5	5.1

RESULTS: treatment – early stage

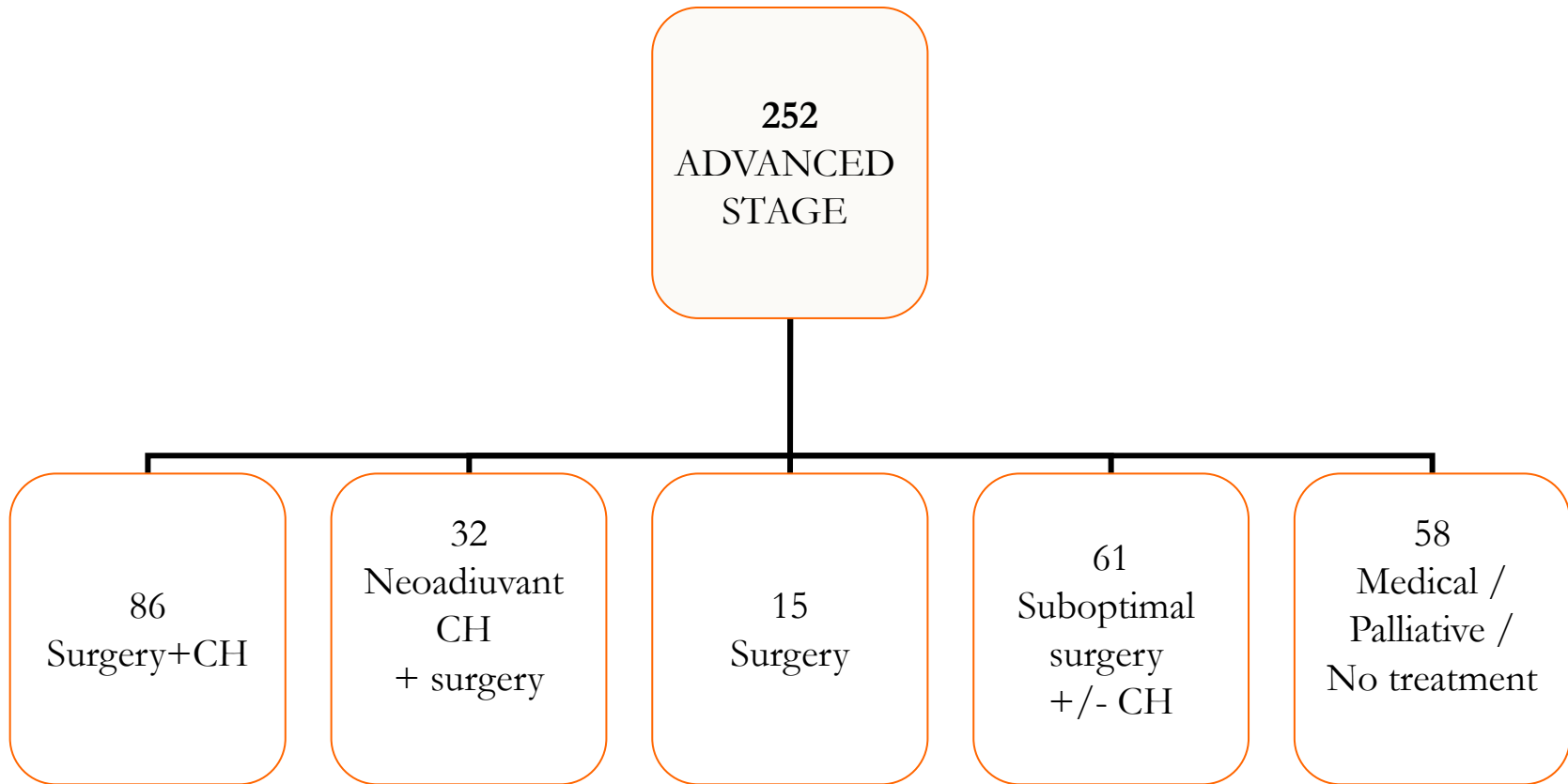


RESULTS: treatment – early stage

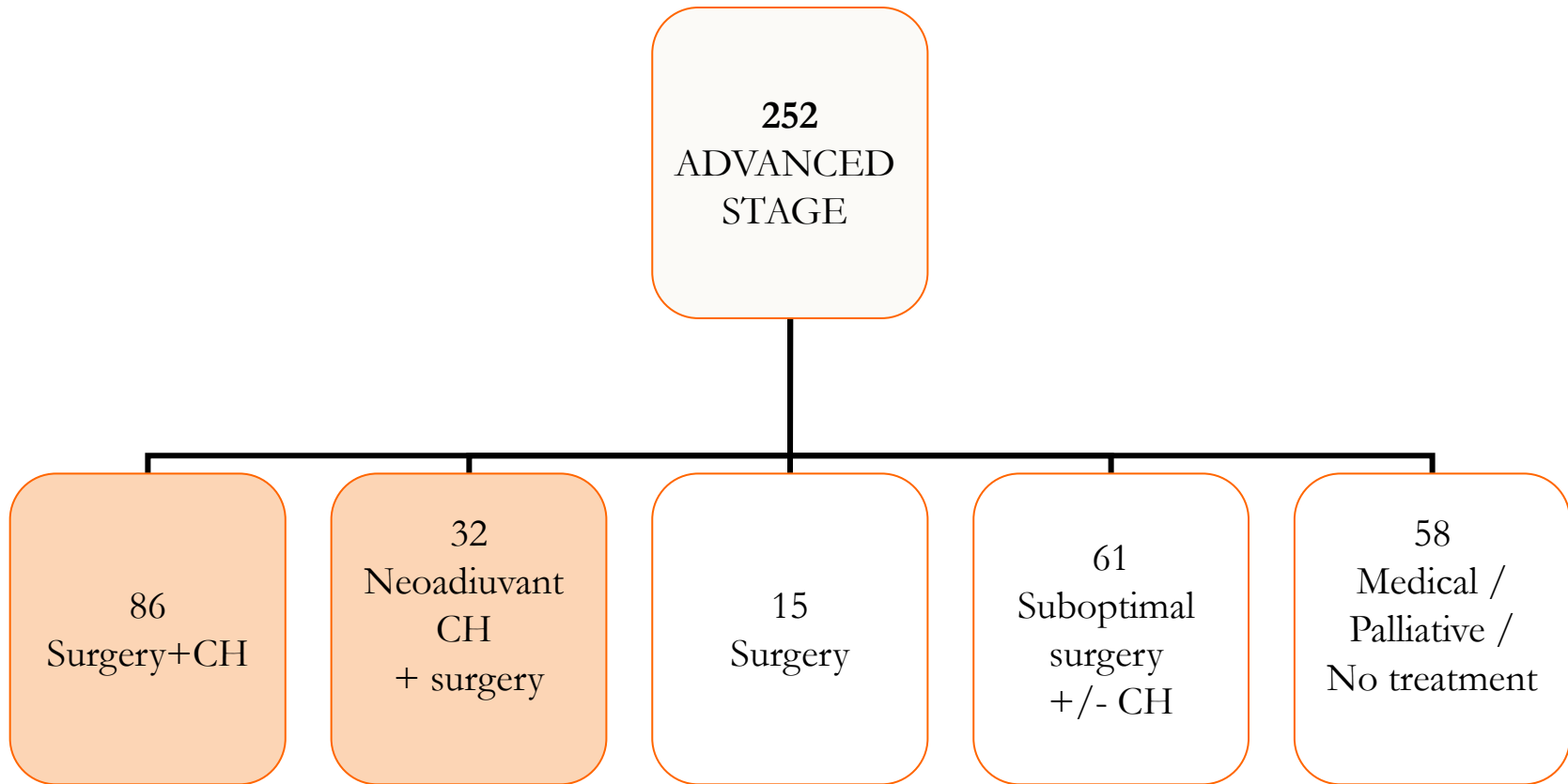


OVERALL ADHERENCE: 56%

RESULTS: treatments – advanced stage



RESULTS: treatments – advanced stage



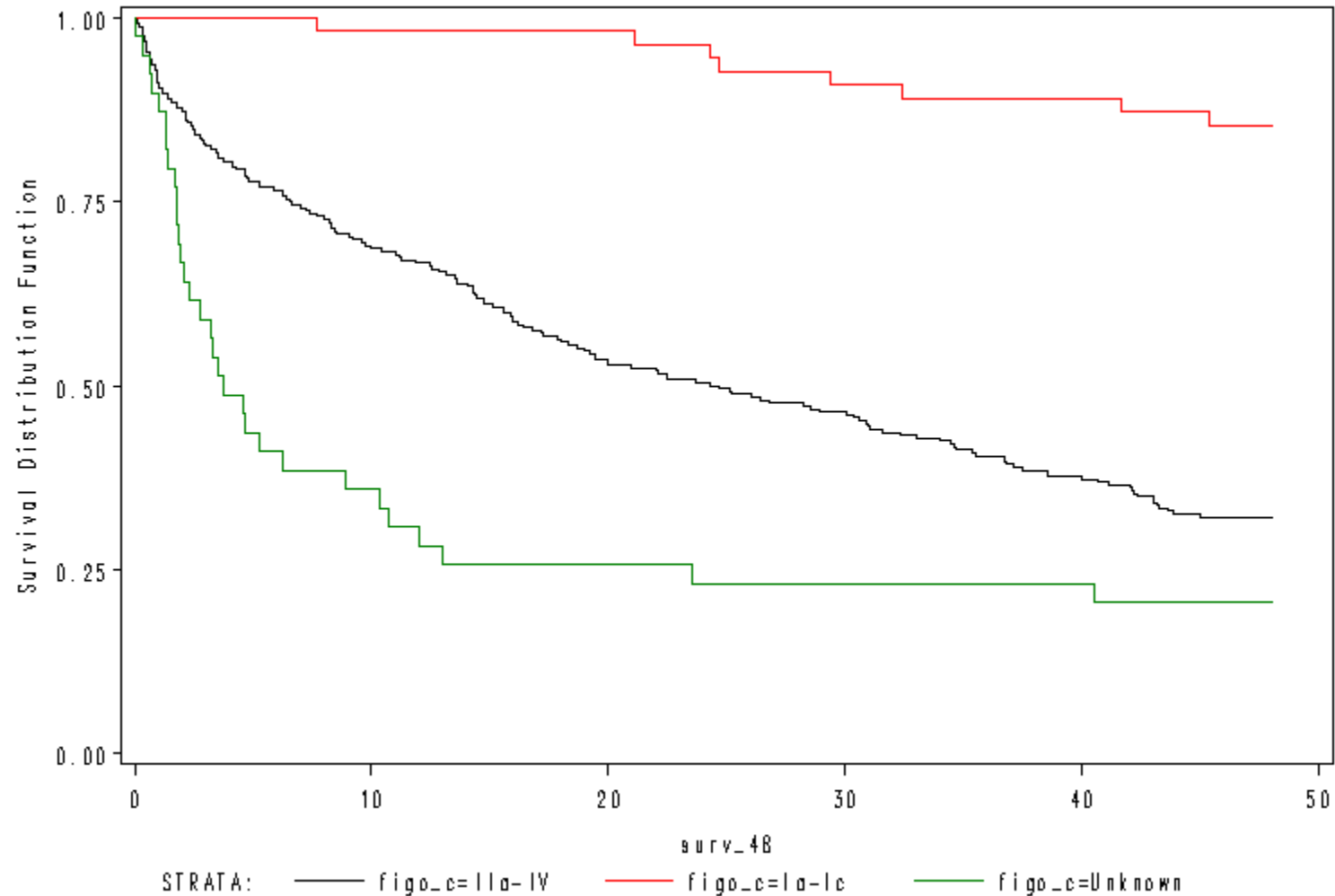
OVERALL ADHERENCE: 57,6%

RESULTS: factors associated with full adherence of pattern-of-care to CGs recommendations

Variables	OR	OR adj	95%CI
Age	0.94	0.95	0.92-0.97
Charlson Index	0.86	0.93	0.82-1.06
PRCCN visits	0.76	0.89	0.50-1.57
Advanced stage	0.88	0.99	0.49-2.00
Hospital volume above 100 cases	3.29	2.72	1.36-5.43

Note: patients with survival < 4 months or treated out of Piedmont omitted

RESULTS: overall survival by stage at diagnosis



RESULTS: risk factors for overall mortality, advanced stage

Risk factors	HR crude	HR adj	95%CI
Age	1.04	1.03	1.01-1.05
Charlson Index	1.08	1.01	0.94-1.09
RCCN visits	1.10	0.96	0.67-1.38
Adherence	0.40	0.50	0.34-0.74
Hospital volume above 100 cases	0.90	1.21	0.80-1.82
FIGO III a-b	0.77	1.77	0.76-4.09
FIGO III c	0.91	2.21	1.03-4.76
FIGO IV	1.81	2.47	1.14-5.35

Note: N=240; patients with survival < 4 months

CONCLUSIONS

- Good performance of the HDRs based algorithm
- Audit results in line with international data:
 - Stage at diagnosis; missing data; survival; ...
 - Relevance of specialization on appropriateness of care
 - Positive impact on survival of appropriateness of care
- But... specialization seems not enough!

- Two final comments:
 - Poor quality of medical records
 - Organization complexity of clinical audit!

Grazie per l'attenzione!

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	NICE	NCCN	SIGN
Valutare i linfonodi retroperitoneali, come completamento di una chirurgia ottimale in donne con sospetto di tumore ovarico che sembri confinato alle ovaie. (B) Negli stadi avanzati eseguire la linfadenectomia in caso di siti Bulky. (D)	✓	✓	✓
La stadiazione chirurgica completa prevede: isterectomia per via addominale, annessiectomia bilaterale, omentectomia infracolica, biopsie peritoneali e random, valutazione dei linfonodi/linfadenectomia. (A)	✓	✓	
L'esecuzione di chemioterapia adiuvante non è indicata negli stadi iniziali, basso rischio (Ia-Ib; G1-2) (E)	✓	✓	✓
Eseguire chemioterapia negli stadi iniziali, alto rischio (Ia-Ib- G3, o a cellule chiare, o Ic), con <u>sei cicli</u> di composti del platino (G)	✓		✓
Eseguire chirurgia, prima o dopo chemioterapia con agenti del platino da solo o in combinazione, con asportazione di tutto il tumore macroscopicamente visibile(C)	✓	✓	✓
Eseguire chemioterapia neoadiuvante solo negli stadi IIIc-IV (F)	✓	✓	✓