

EASYNET

*Effectiveness of **audit and feedback** strategies to improve healthcare practice and **equity** in various clinical and organizational settings*



WP3 – Piemonte

Implementation of the perioperative ERAS (Enhanced Recovery After Surgery) protocols with an Audit and Feedback strategy in the regional hospital network in Piedmont

November 25 - 2021



ERAS National Chapter Italy



Study design and enrolment

- **Population:** all consecutive patients with a scheduled surgery for:
 - Colorectal cancer resection
 - Hysterectomy for benign or malignant conditions
- **Setting:** all regional hospitals in Piedmont (> 4 million inhabitants) performing a minimum number of procedures per year:
 - **32 hospitals** with a general surgery unit
 - **25 hospitals** with a gynaecology unit
- **Trial design:** two stepped wedge cluster randomized trials
- **Patient enrolment:** 21 months (September 2019 - May 2021)
 - **2346 - colorectal resections:** (1045 control period, 1301 intervention period)
 - **2060 - hysterectomies:** (1095 control period, 965 intervention period)

A&F strategy: what was done

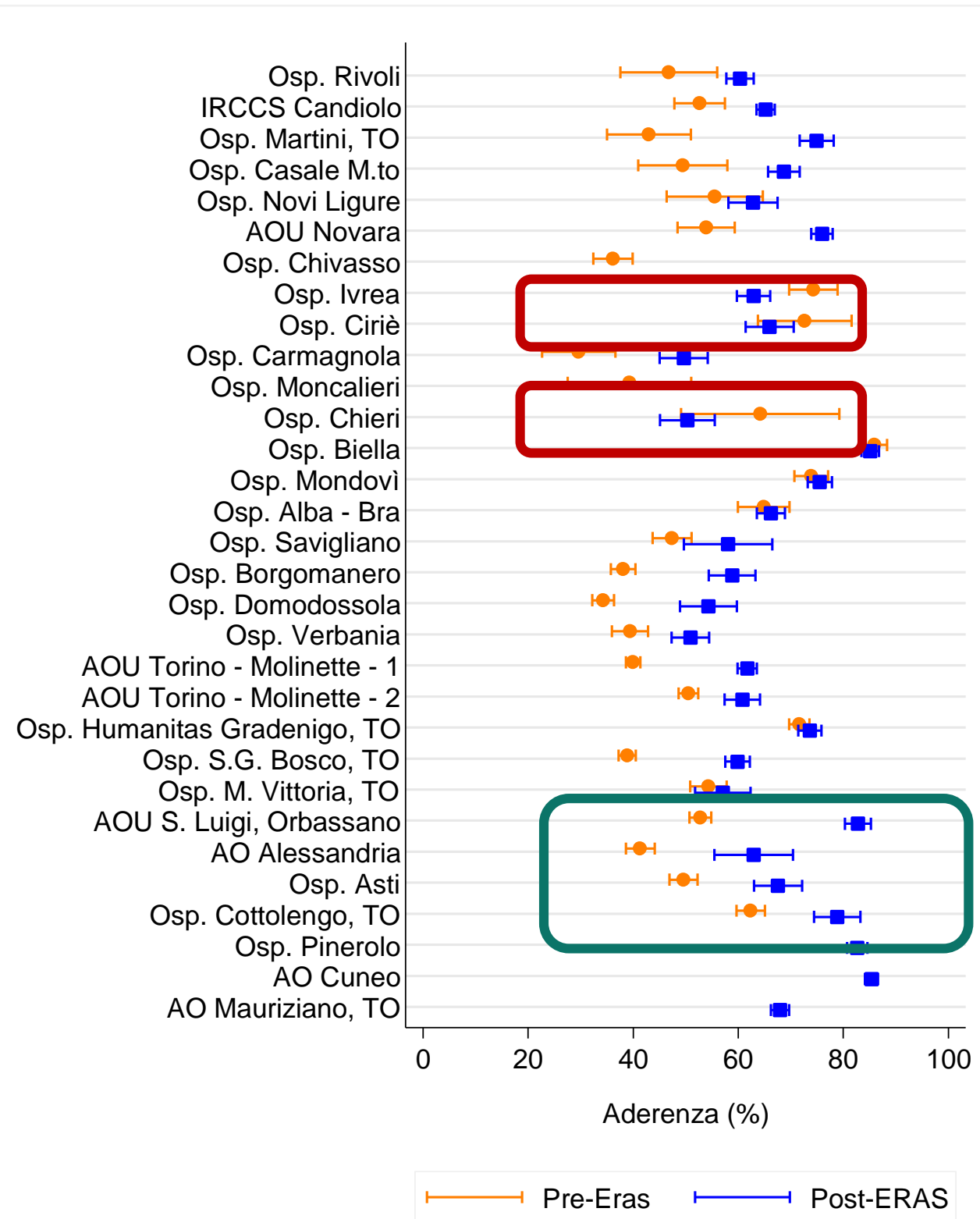
- **Presentation and training meetings** for all the local ERAS teams
- **Study web site (continuously updated) with:**
 - **database** for data collection:
 - local compilation of CRFs
 - centralised data entry
 - **monitoring area**, with patient enrolment vs expected for each centre, data quality, ...
 - **feedback area** (during intervention period) with graphical representation of:
 - centre adherence to the protocol items (radar)
 - comparison between centres (histograms)
- Periodic **reports** with indicators of protocol adherence and **online meetings**
- **Survey** of participating centres after the end of the study to collect local experiences, obstacles encountered and perspectives
- Final **presentations of results (October 2021)**

Main results

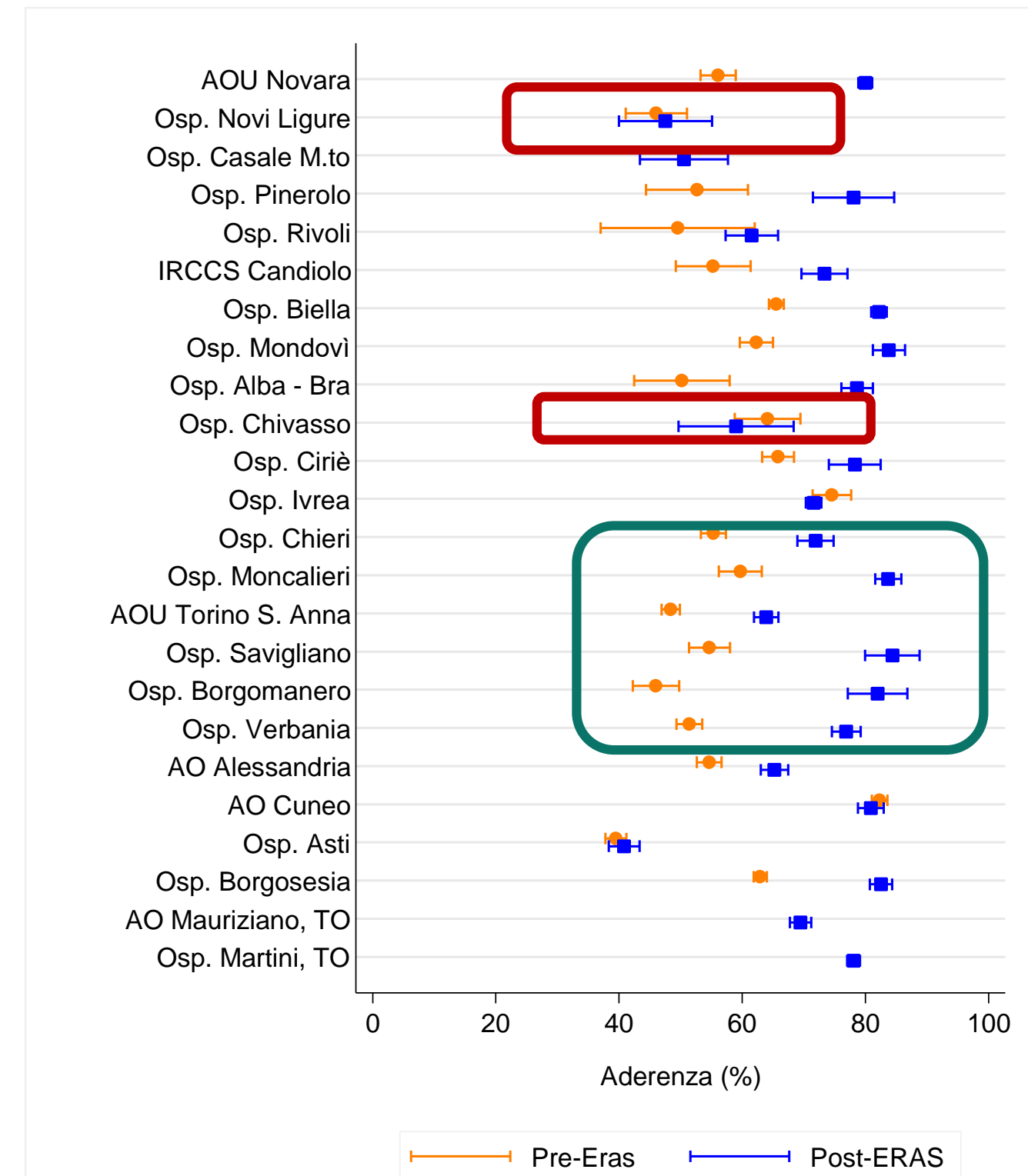
- **Moderate/high** impact of A&F in **improving adherence** to the ERAS items:
 - Colorectal surgery: from 52% to 68% (adj. difference: + 14.5%, 95%CI: 12.8-16.3)
 - Hysterectomy: from 58% to 75% (adj. difference: + 13.8%, 95%CI: 12.1-15.5)
 - High heterogeneity among centres
- **Weaker effect** of the ERAS protocol **on clinical endpoints**:
 - Colorectal surgery (mean, LOS): from 8.5 to 7.5 days
 - Hysterectomy (mean, LOS): from 3.6 to 3.2 days
- Clear **trend** towards greater clinical effects with:
 - higher adherence
 - Increasing experience

Pre and post adherence to ERAS items by centre

Colorectal surgery



Hysterectomy



Main obstacles and favourable factors reported (survey)

Obstacles

- Lack of involvement of **local leaders** (in some centres)
- **Cultural resistance** and scepticism towards innovations (> in older people)
- Lack of time for **data collection** (absence of local data managers)
- Shortage and turn over of **health personnel** (nurses, anaesthesiologists)
- **COVID!!**

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Favourable factors

- Involvement into a **research project** (unusual for most centres)
- The **A&F strategy**
- Role of **regional health department**
- Central **study coordination**
- Working in **multidisciplinary teams**
- Increased **staff motivation and patient satisfaction**

Problems and perspectives

Problems

- Unable to maintain a systematic **collection of detailed clinical data** outside of a research project
- Great **risk of progressive abandoning the new protocol** (especially in centres with weak leadership)
- Need for **additional time to consolidate the changes**
- **COVID??**

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Perspectives

- To allow centres who are interested **to continue the collection of clinical data** with own resources using the interactive web site (with the feedback area)
- To produce **periodic reports based on routine data** (every 6 months)
- To organise updating **courses on ERAS and meetings** to promote exchange of experiences among regional centres
- To **extend the ERAS protocol to other surgical procedures**