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RE-START: A study on behalf of AIRO

Re-SBRT after previous definitive or salvage radiotherapy

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Biochemical recurrence

1/3rd of patients after definitive radiotherapy or adj RT after radical prostatectomy

Treatment options

Androgen deprivation therapy (ADT)

+/-androgen receptor targeted agents

and salvage local approaches

surgery / focal therapies

re-irradiation

Problem of persistant side effects of systemic treatment

Hence salvage local approaches appealing

- With all salvage techniques : 5 years relapse free survival is comparable
- Reirradiation may lead to lower toxicity
- This study aimed to assess safety and efficacy of reirradiation

RE-START is a multicentric international registry.

Patients included in the current analysis were retrospectively enrolled.

Primary endpoint was rate of acute and late gastrointestinal (GI) and genitourinary (GU) toxicity

reported according to Common Terminology Criteria for Adverse Events (CTCAE).

Biochemical relapse after a previous course of radical or postoperative radiotherapy (European Urology Association criteria)

Intra prostatic or prostate bed macroscopic recurrence detected by PET CT / MRI

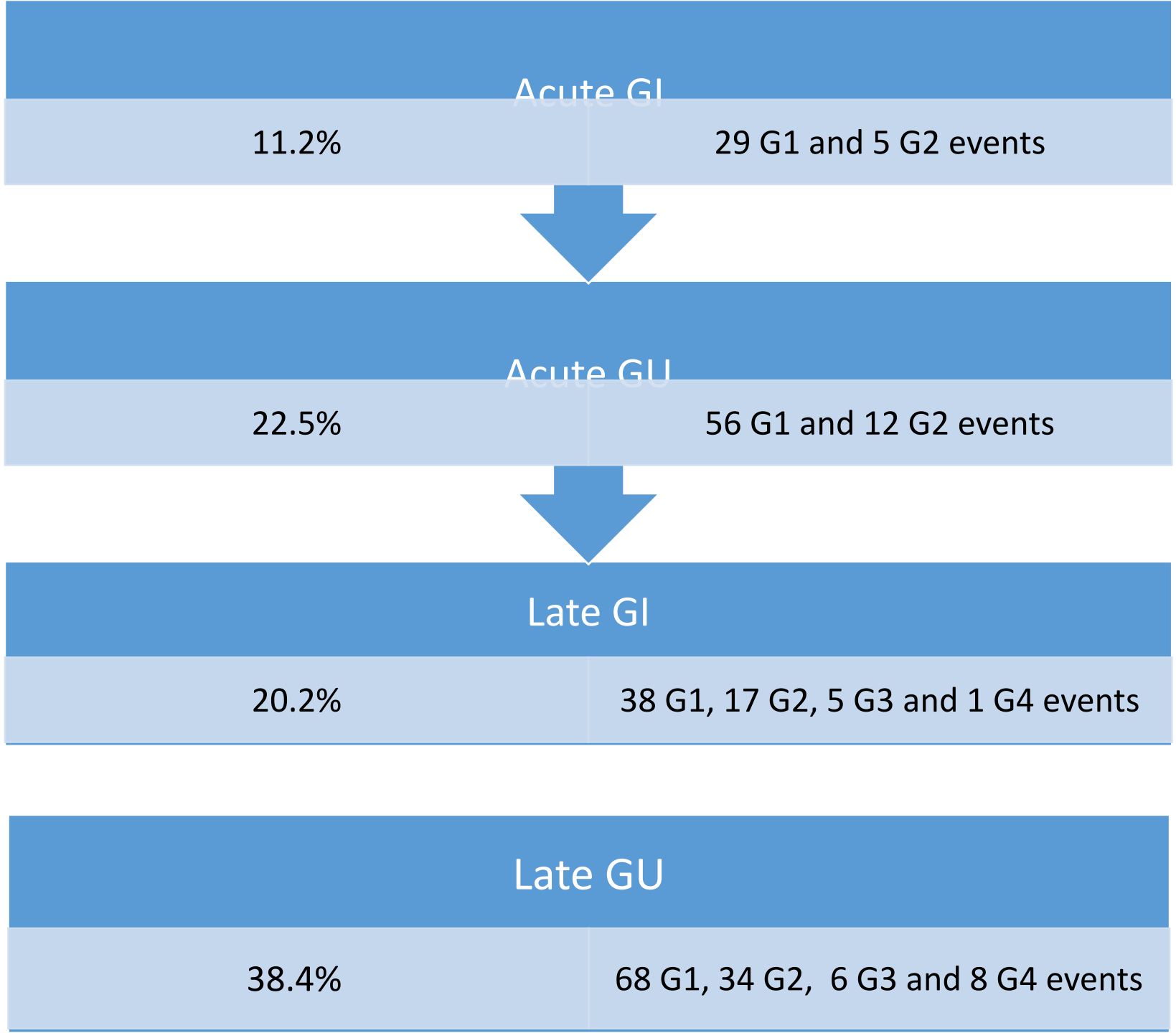
All treatment schedules allowed But at least 5 Gy per fraction dose

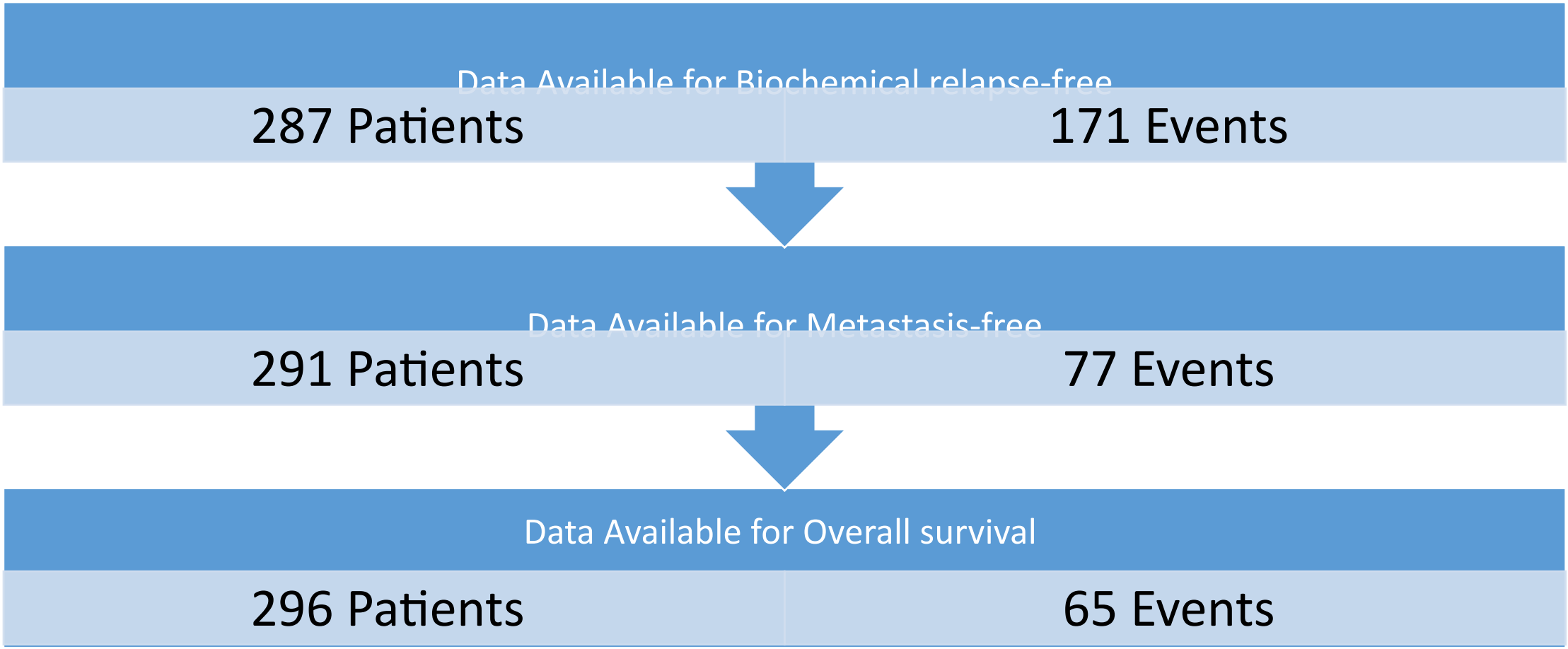
Patients with metastatic disease, regional nodal disease

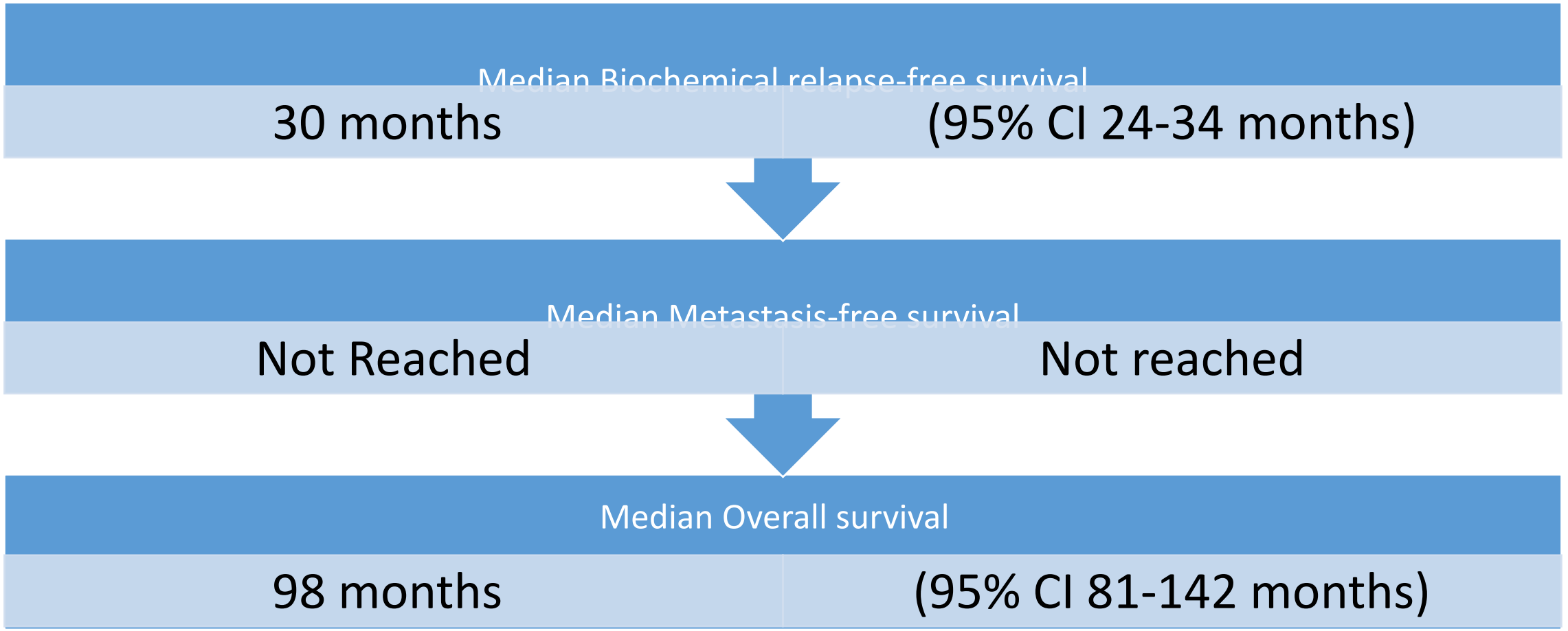
Residual severe toxicities from previous treatments

Less than 6 months of follow-up for the analysis.

- 302 patients
- 177 patients received concomitant ADT
- Median follow up 42 months (95% CI 37-48 months)
- SBRT median total dose of 30 Gy (2-5 fractions)


Acute GI
11.2%
29 G1 and 5 G2 events
Acute GU
22.5%
56 G1 and 12 G2 events
Late GI
20.2%
38 G1, 17 G2, 5 G3 and 1 G4 events
Late GU
38.4%
68 G1, 34 G2, 6 G3 and 8 G4 events


Data Available for Biochemical relapse-free
287 Patients
171 Events
Data Available for Metastasis-free
291 Patients
77 Events
Data Available for Overall survival
296 Patients
65 Events


Median Biochemical relapse-free survival
30 months
(95% CI 24-34 months)
Median Metastasis-free survival
Not Reached
Not reached
Median Overall survival
98 months
(95% CI 81-142 months)

At univariate analysis,

- baseline high-risk disease (p=0.01),
- time between end of first radiotherapy course and relapse ≤36 months (p<0.001),
- concomitant ADT (p<0.001)
- PSA at relapse ≤1 ng/ml (p=0.001)

were all significantly associated with BRFS, and persisted as independent prognostic factors at multivariate analysis

- None of the above mentioned factors was significantly associated with MFS.
- Only time between end of first radiotherapy course and relapse ≤36 months was significantly associated with OS (p=0.02).

Conclusion


After more than 3 years of median follow up,toxicity rate after reirradiation was mild
Clinical outcomes in terms of BRFS, MFS and OS were promising.
RE-START is a multicentric international registry including long term follow-up data about patients undergoing reirradiation for macroscopic relapse within prostate or prostate bed,
that could provide reliable information about implementation of this approach in current clinical practice.