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Background

- Low-grade stage I endometrioid ovarian carcinoma is associated with excellent outcomes following complete surgical resection.
- Adjuvant chemotherapy remains frequently administered despite limited histology-specific evidence supporting benefit.
- Prior randomized ovarian cancer trials included heterogeneous histologies and many incompletely staged patients.
- Overtreatment may expose Military Health System (MHS) beneficiaries to unnecessary toxicity without improving outcomes.

Objective and Hypothesis

- Study Objective:** To evaluate whether adjuvant chemotherapy improves overall survival compared with observation following complete surgical resection of low-grade stage I endometrioid ovarian, tubal, and primary peritoneal carcinoma.
- Hypothesis:** Following complete gross resection (R0), adjuvant chemotherapy would not be associated with improved survival.

Why This Matters to the MHS

- Avoids unnecessary chemotherapy-related neuropathy, fatigue, and functional impairment
- Preserves long-term readiness and survivorship
- Reduces low-value care and resource utilization
- Supports evidence-based treatment standardization across the MHS.

Methods

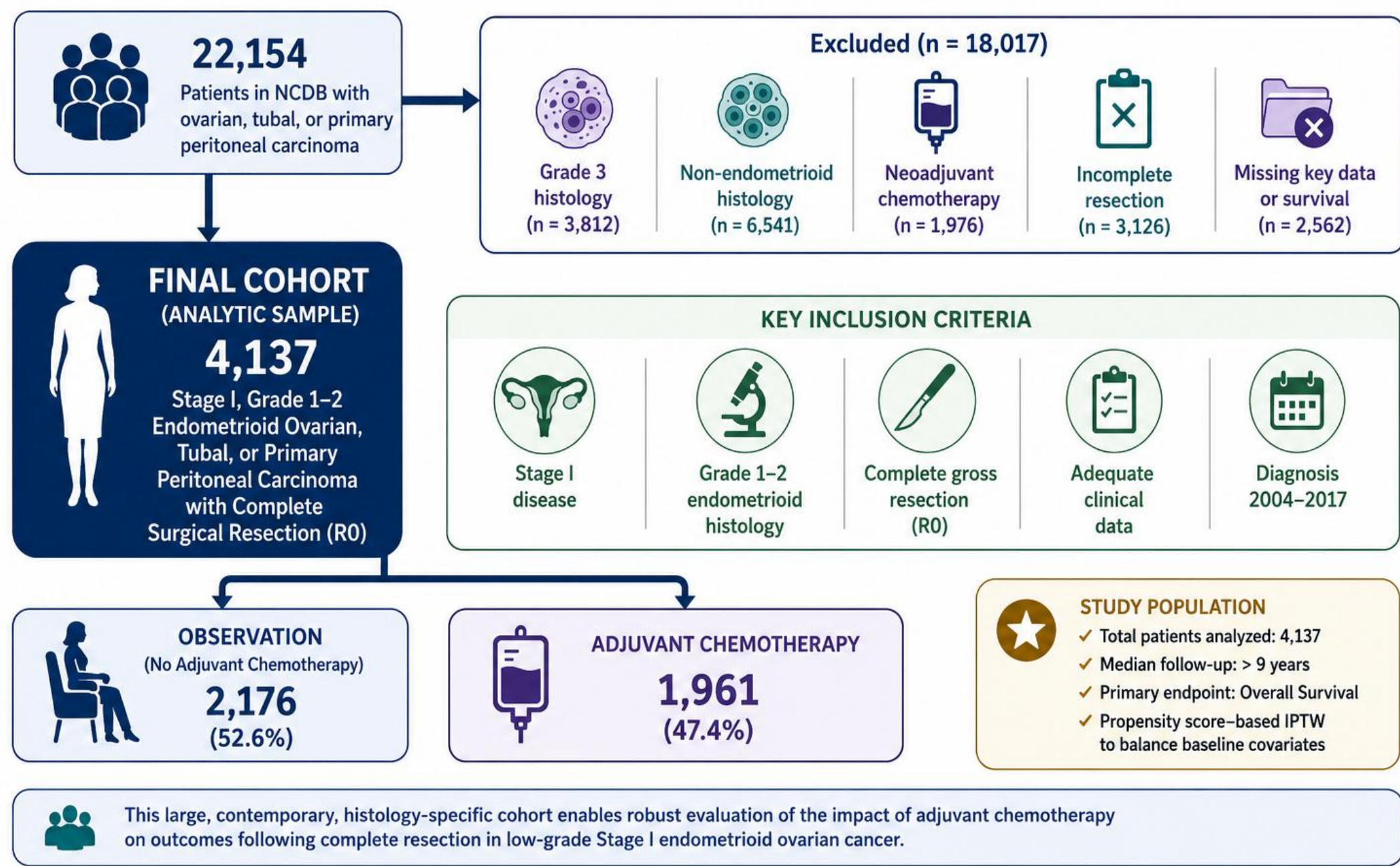
- Study Design:** Retrospective National Cancer Database Cohort Study (2004-2017).
- Inclusion Criteria:** Patients with stage I, grade 1-2 endometrioid ovarian, tubal or primary peritoneal carcinoma who achieve complete surgical resection.
- Statistical Approach:**
 - Propensity Score Modeling based on inverse probability of treatment weighting (IPTW)
 - Weighted Kaplan-Meier analyses and Cox proportional hazards models
 - Prespecified subgroup and sensitivity analyses.

Disclosure: A generative AI tool (OpenAI ChatGPT) was used to assist with editorial refinement, content organization, and conceptual graphic development. All scientific content, analyses, results, interpretations, and final visual elements were reviewed, verified, and approved by the authors, who assume full responsibility for the accuracy and integrity of the work

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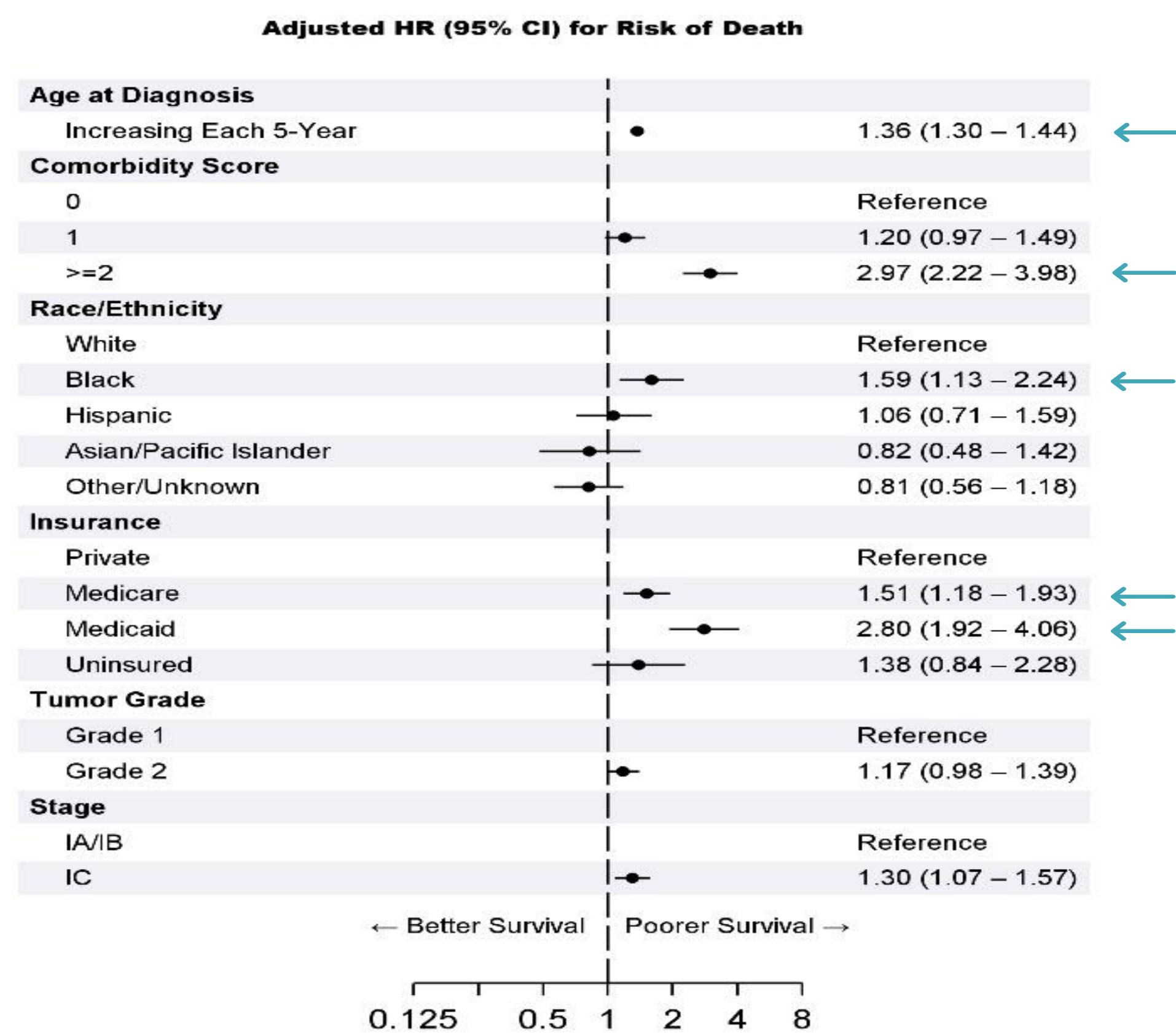
Results: Observation achieves excellent long-term survival without the added toxicity and resource utilization of adjuvant chemotherapy

Figure 1. Cohort Flow Diagram (n = 4,137)



One of the largest histology-specific cohorts of low-grade stage I endometrioid ovarian carcinoma reported to date.

Figure 2. Factors Associated with Worse Survival

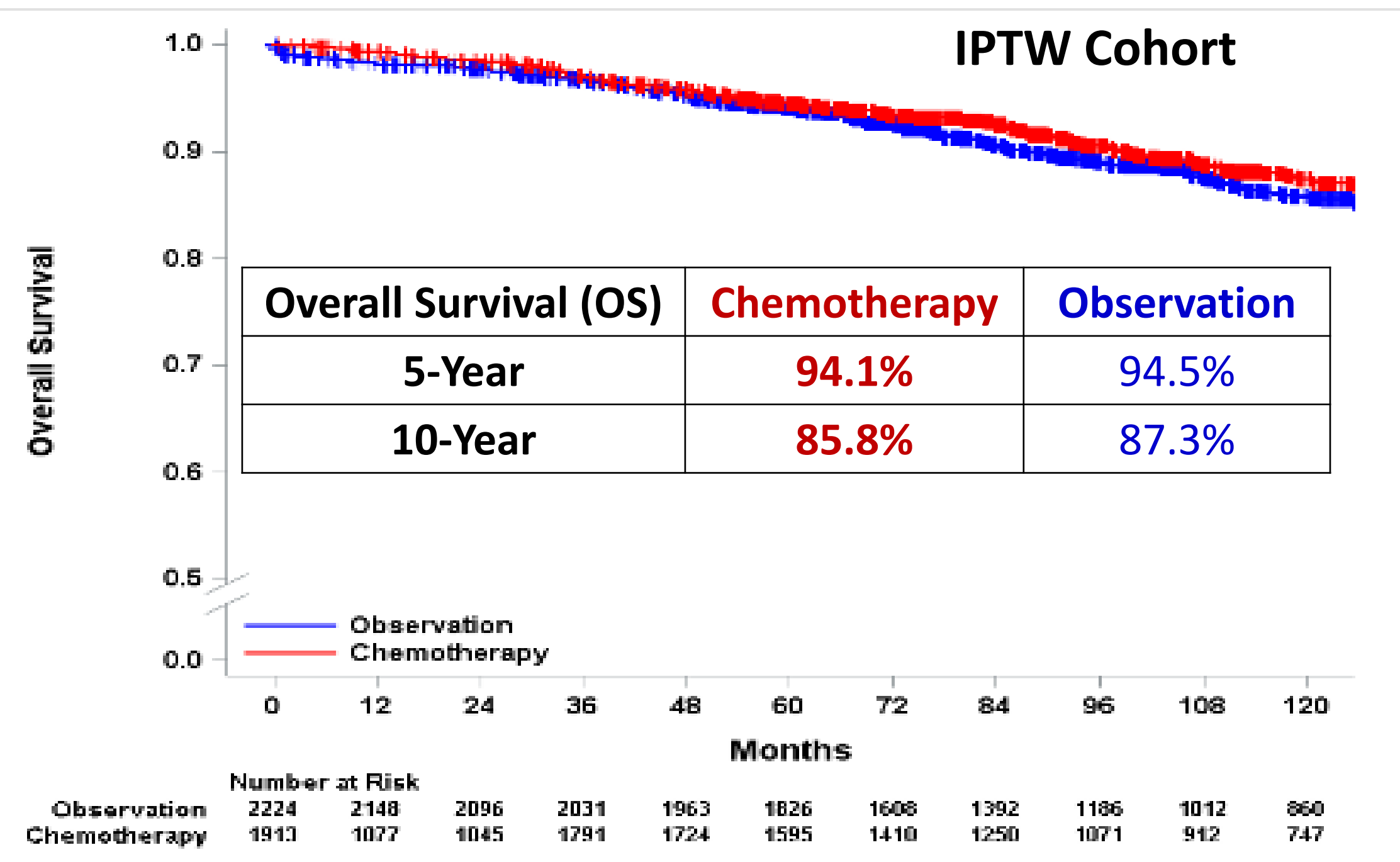


Older age, higher comorbidity burden, Black race, insurance status, and stage IC disease

Take-Home Message:

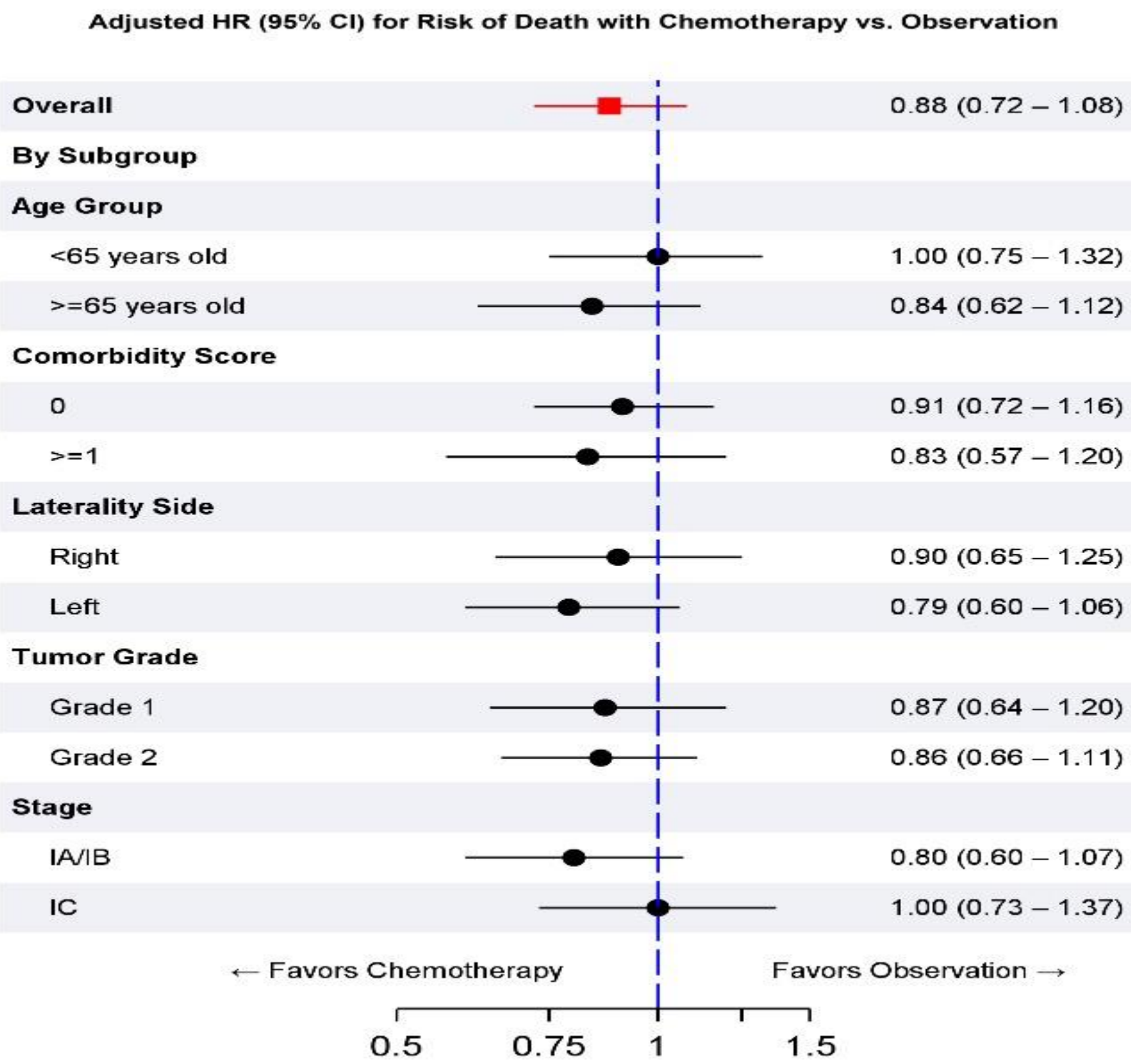
- In more than 4,000 women with completely resected low-grade stage I endometrioid ovarian cancer, adjuvant chemotherapy did not improve survival.**
- Observation preserved excellent long-term outcomes while avoiding unnecessary treatment-related toxicity.**

Figure 3. Overall Survival the IPTW Cohort



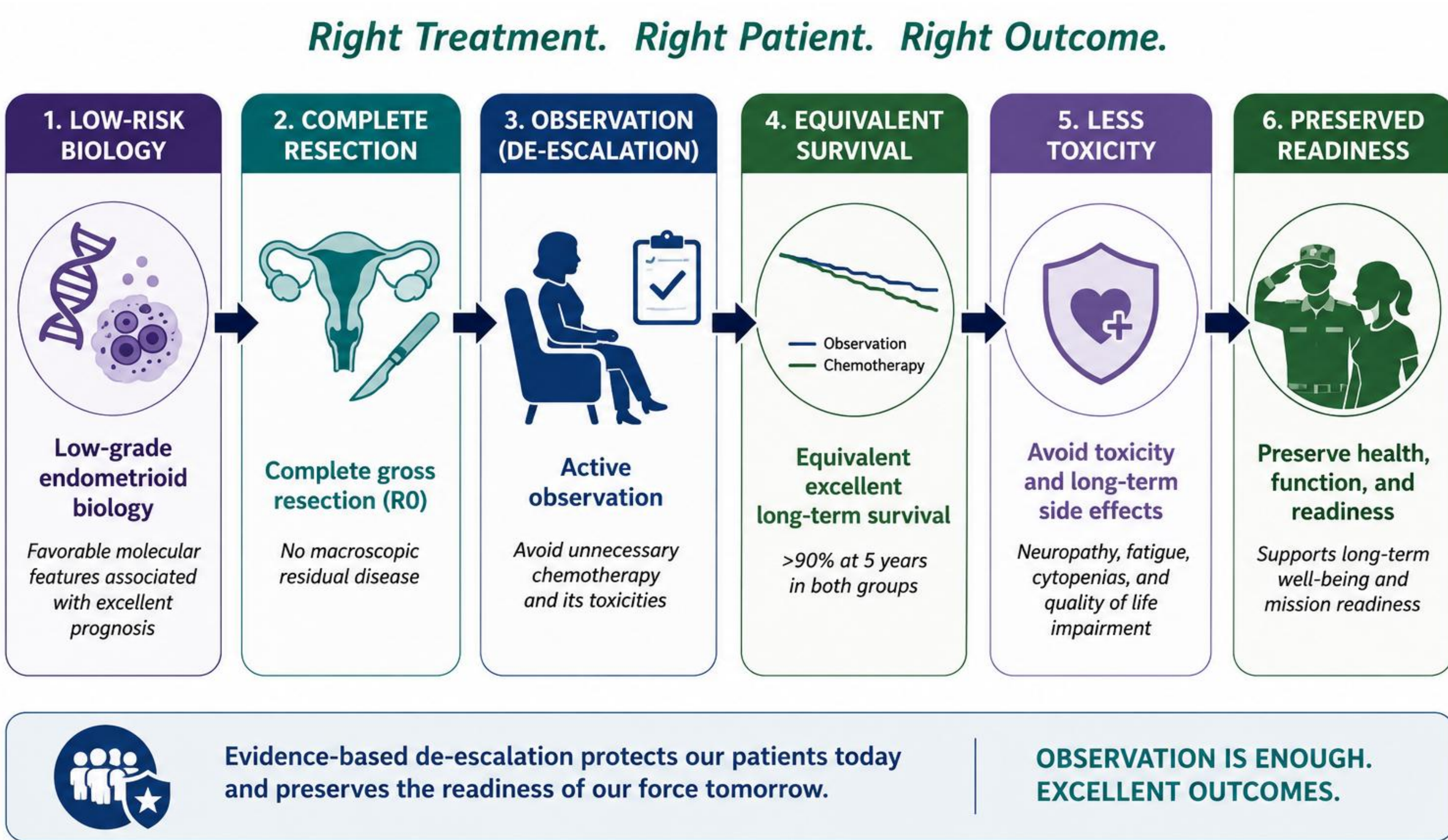
Key Finding: No survival benefit from chemotherapy. HR 0.88, 95% CI: 0.72-1.08, p = 0.228

Figure 4. Subset Analyses with Adjusted Risk of Death



No subgroup benefitted from chemotherapy - including in patients with grade 2 or stage IC disease

Figure 5. De-Escalation Schema



MHS Impact

- Supports evidence-based chemotherapy de-escalation.
- Reduces unnecessary treatment-related toxicity.
- Preserves long-term survivorship and functional capacity. Improves oncology stewardship across the Military Health System.
- Enables more efficient allocation of oncology resources.
- Aligns treatment intensity with demonstrated clinical benefit.

Conclusions

- Adjuvant chemotherapy was not associated with improved survival after complete surgical resection of low-grade stage I endometrioid ovarian carcinoma.
- Survival exceeded 90% regardless of chemotherapy exposure.
- No subgroup, including stage IC or grade 2 disease, demonstrated benefit.
- Observation should be considered the preferred postoperative management strategy following complete resection of low-grade stage I endometrioid ovarian carcinoma.
- These findings support treatment de-intensification and high-value care across the MHS.