

INTRODUCTION

Acute myeloid leukemia (AML) frequently **requires transfusion support** due to disease-related cytopenias and treatment-associated myelosuppression. Patients receiving intensive and non-intensive therapies represent distinct clinical populations with different treatment trajectories and supportive care needs. Real-world data from Latin America remain limited.

AIM

To describe transfusion requirements and clinical characteristics according to treatment strategy among adult patients with AML treated at a national referral oncology center.

METHOD

STUDY DESIGN

Retrospective observational study.

STUDY PERIOD

Conducted between **January 2020** and **December 2024**.

SETTING

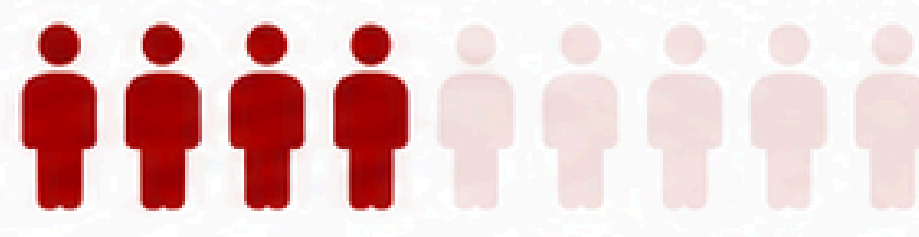
National cancer referral center in **Mexico City, Mexico**.

TREATMENT GROUPS

TOTAL PATIENTS

90
patients

INTENSIVE CHEMOTHERAPY
(n=33)



33 patients (36.7%)

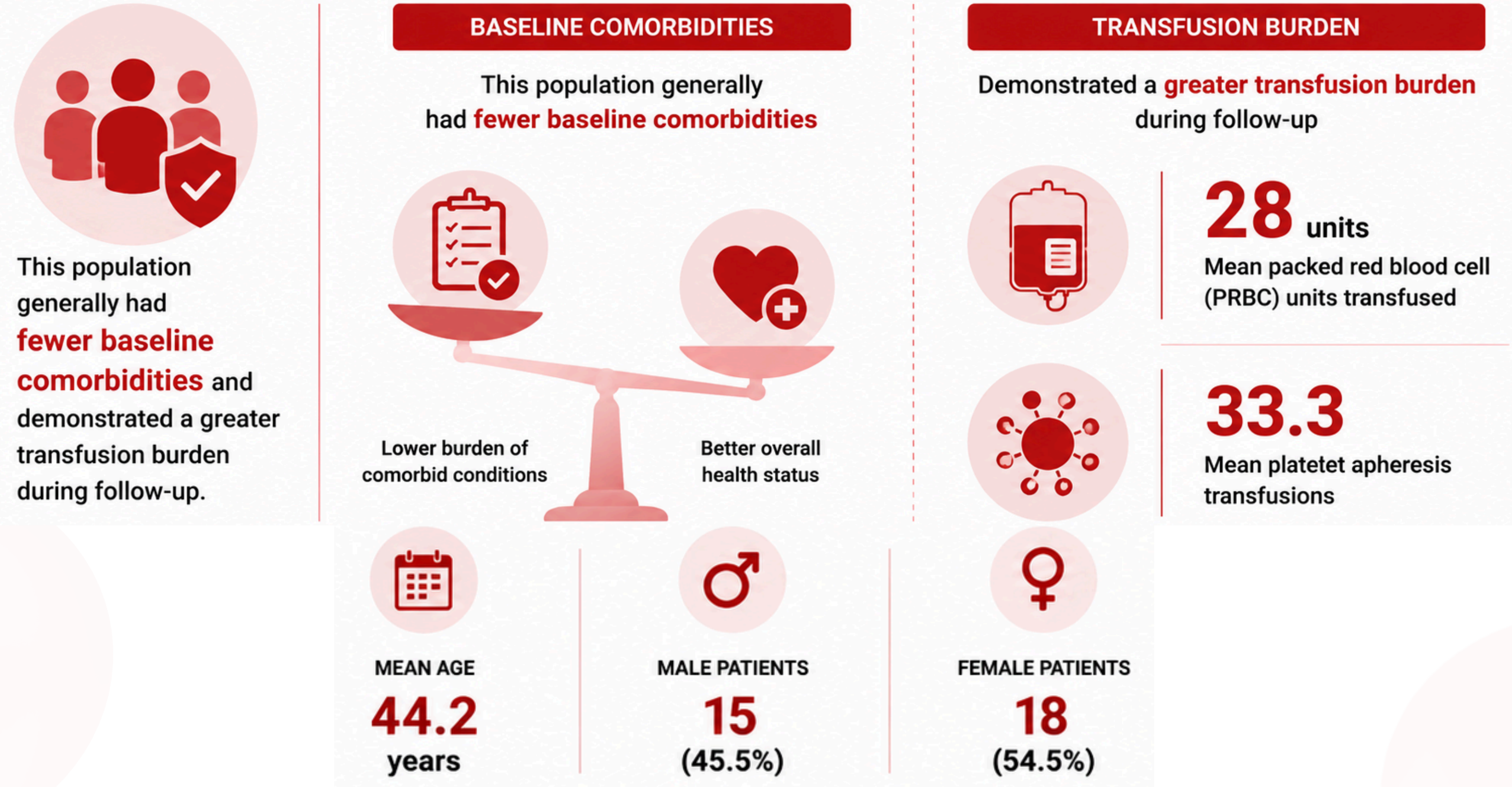
NON-INTENSIVE THERAPY
(n=57)



57 patients (63.3%)

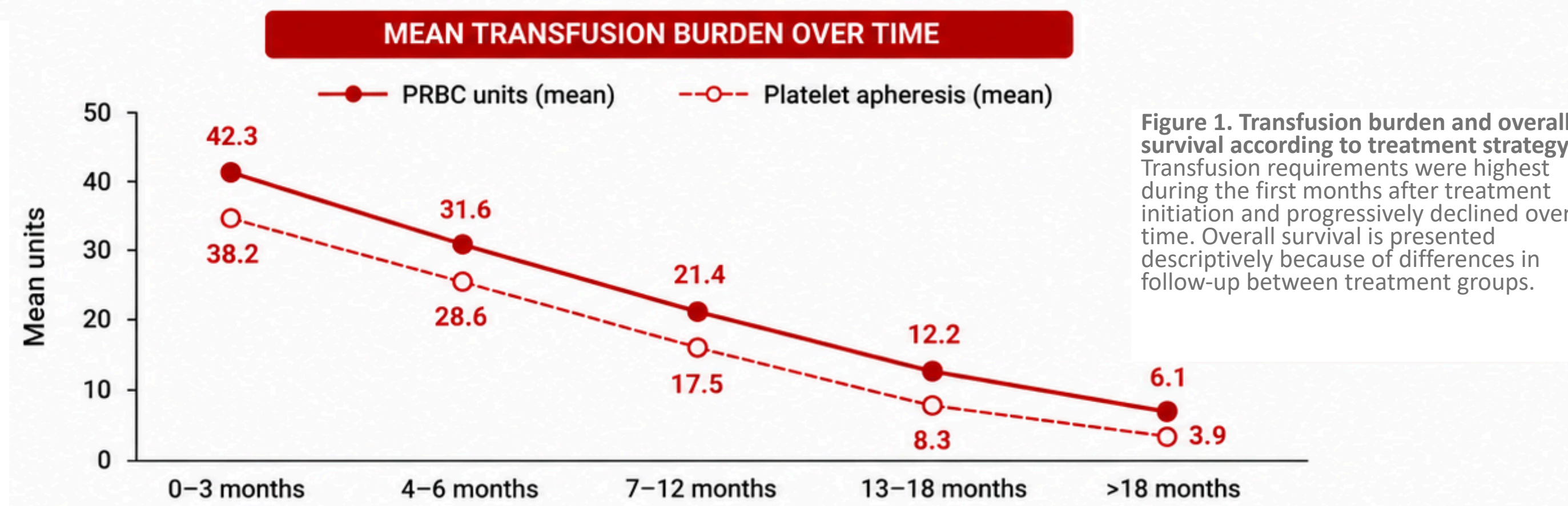
RESULTS

BASELINE CHARACTERISTICS AND TRANSFUSION BURDEN (INTENSIVE CHEMOTHERAPY COHORT, n=33)



TRANSFUSION BURDEN OVER TIME

Transfusion burden was **greatest during the first months** after treatment initiation and gradually declined over time.



OVERALL SURVIVAL (DESCRIPTIVE ANALYSIS)

INTENSIVE COHORT
(n=33)

Mean overall survival
29.8
months

VS

NON-INTENSIVE COHORT
(n=57)

Mean overall survival
19.1
months

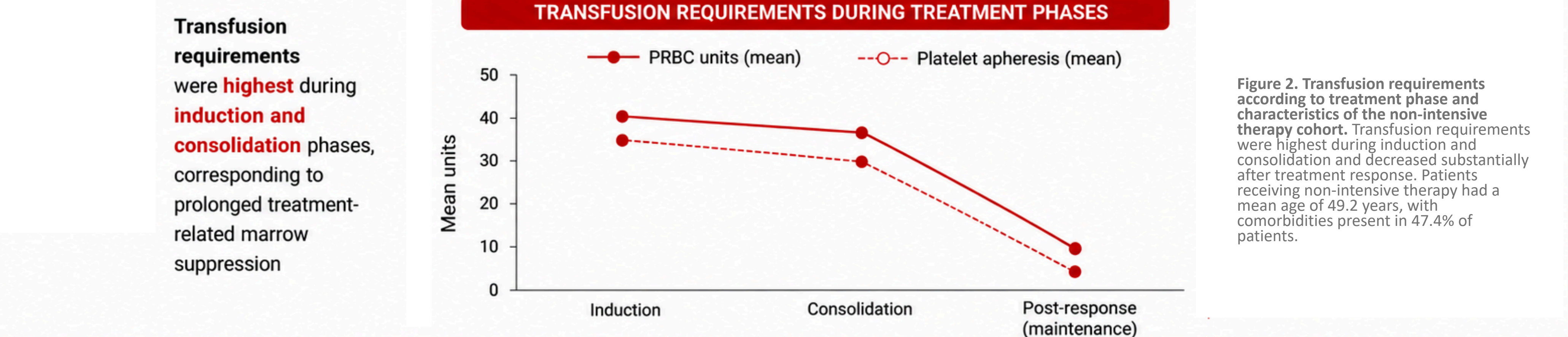
However, because several patients in the non-intensive group had recently initiated therapy, these survival data were **interpreted descriptively** rather than as a direct comparison between treatment groups.

CONCLUSIONS

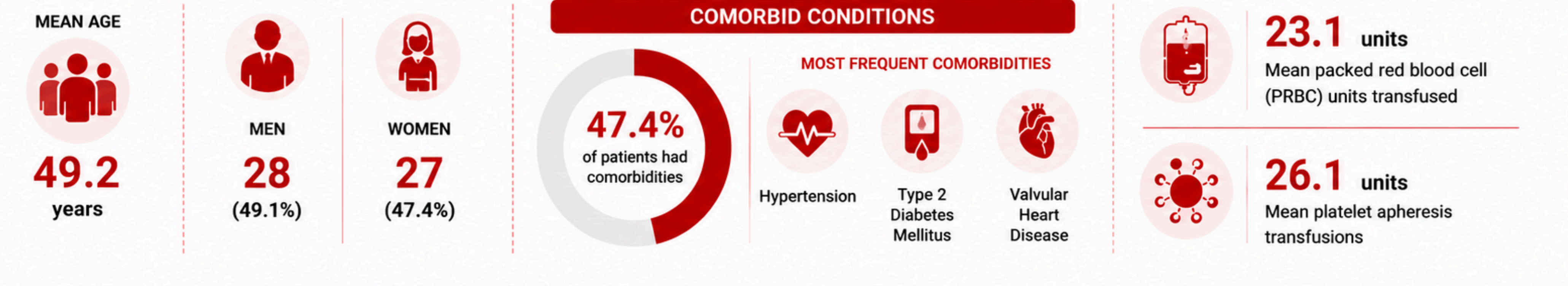
AML was associated with a substantial transfusion burden throughout treatment. Intensive and non-intensive cohorts showed distinct clinical profiles and transfusion trajectories, highlighting the importance of individualized supportive care. Transfusion requirements were strongly influenced by treatment intensity and phase of therapy, with the greatest burden occurring during periods of treatment-related marrow suppression and progressively decreasing after response or over subsequent months of therapy. These findings emphasize the need for treatment-adapted transfusion planning, considering treatment strategy, disease response, comorbidities, and evolving patient needs. Differences in survival between cohorts should be interpreted descriptively, given baseline clinical differences, treatment selection, and unequal follow-up.

Transfusion support in AML is dynamic rather than uniform and should be tailored to treatment intensity, treatment phase, response, and individual patient characteristics.

TRANSFUSION REQUIREMENTS OVER THE COURSE OF TREATMENT



NON-INTENSIVE THERAPY COHORT (n=57)



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