

Trajectories and Predictors of Medical and Living Costs after Hematopoietic Cell Transplant

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Background

- Allogeneic hematopoietic cell transplantation (allo-HCT) for hematological malignancies is a potentially curative treatment
- Allo-HCT can lead to financial hardship due to costs of care, increased living costs and reduced income
- Costs after allo-HCT can be directly due to the cancer treatment or indirectly due to the cancer through increases in living costs (lodging, food, clothing)
- Aims:
 - Describe the medical and non-medical cost burden following allo-HCT within the context of a Phase II/III clinical trial
 - Explore potential predictors of higher costs following allo-HCT

Approach

- 42 adults undergoing allo-HCT completed cost diaries every other week for the first 12 weeks after transplant and then every four weeks until week 24
- Cost diaries asked participants about costs due to the cancer and cancer treatment in 19 categories
 - 10 categories of medical costs (e.g. prescription drug/medication costs, medical durable equipment)
 - 9 categories of living costs (e.g. parking, delivery costs)
- Participants were also asked to attribute each cost to either the cancer, another condition, both the cancer and another medical condition or that they did not know
- The sample was: 5% Hispanic/Latino (n=2), 8% Asian (n=3), 80% married (n=31), and 56% male (n=22).
- The sample had: 80% unrelated donor (31), and 36% incomes less than \$50,000 USD per year (n=14).

Findings

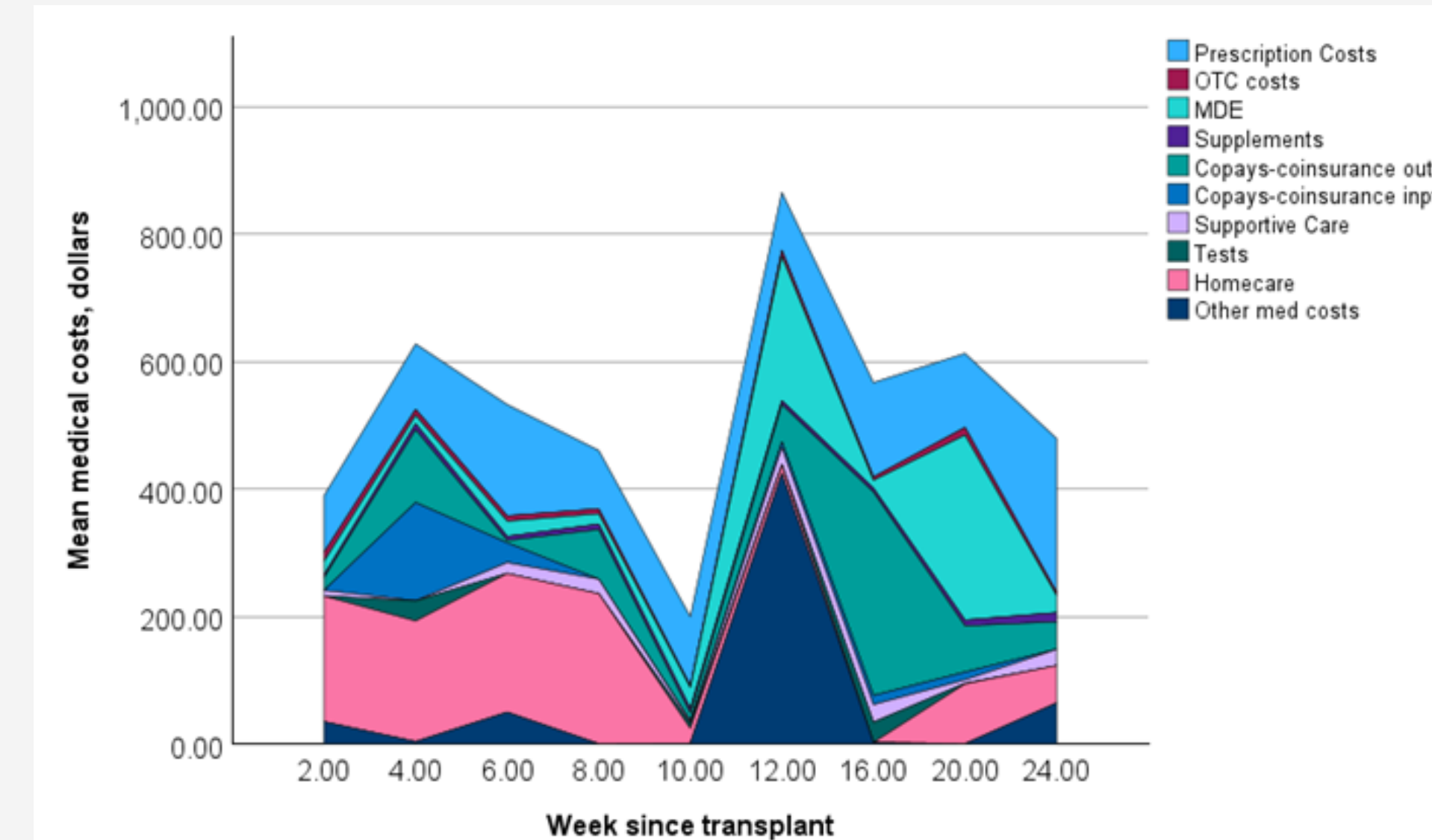


Figure 1: Mean medical costs by week after hematopoietic cell transplant

Figure 2: Mean non-medical (living) costs by week after hematopoietic cell transplant

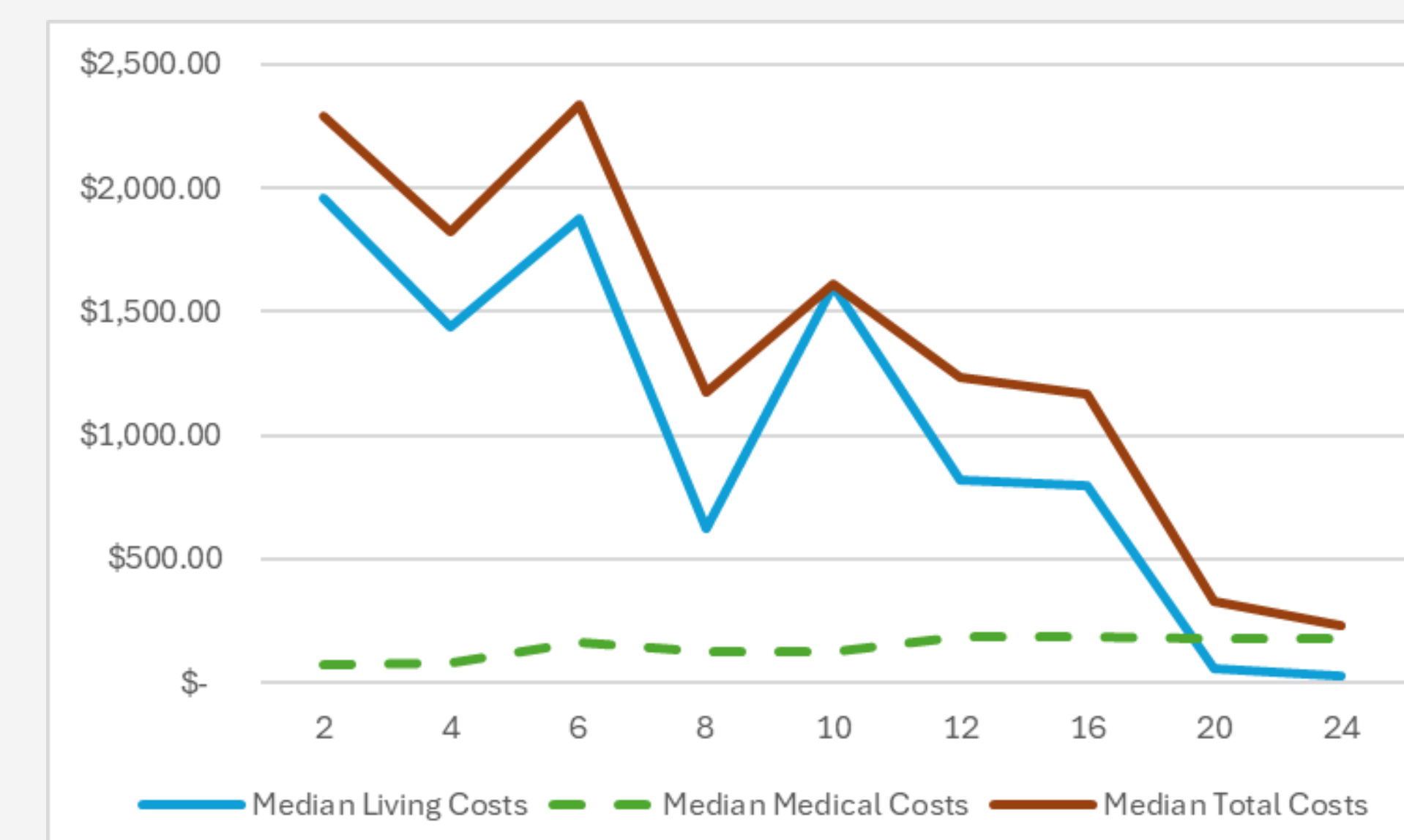
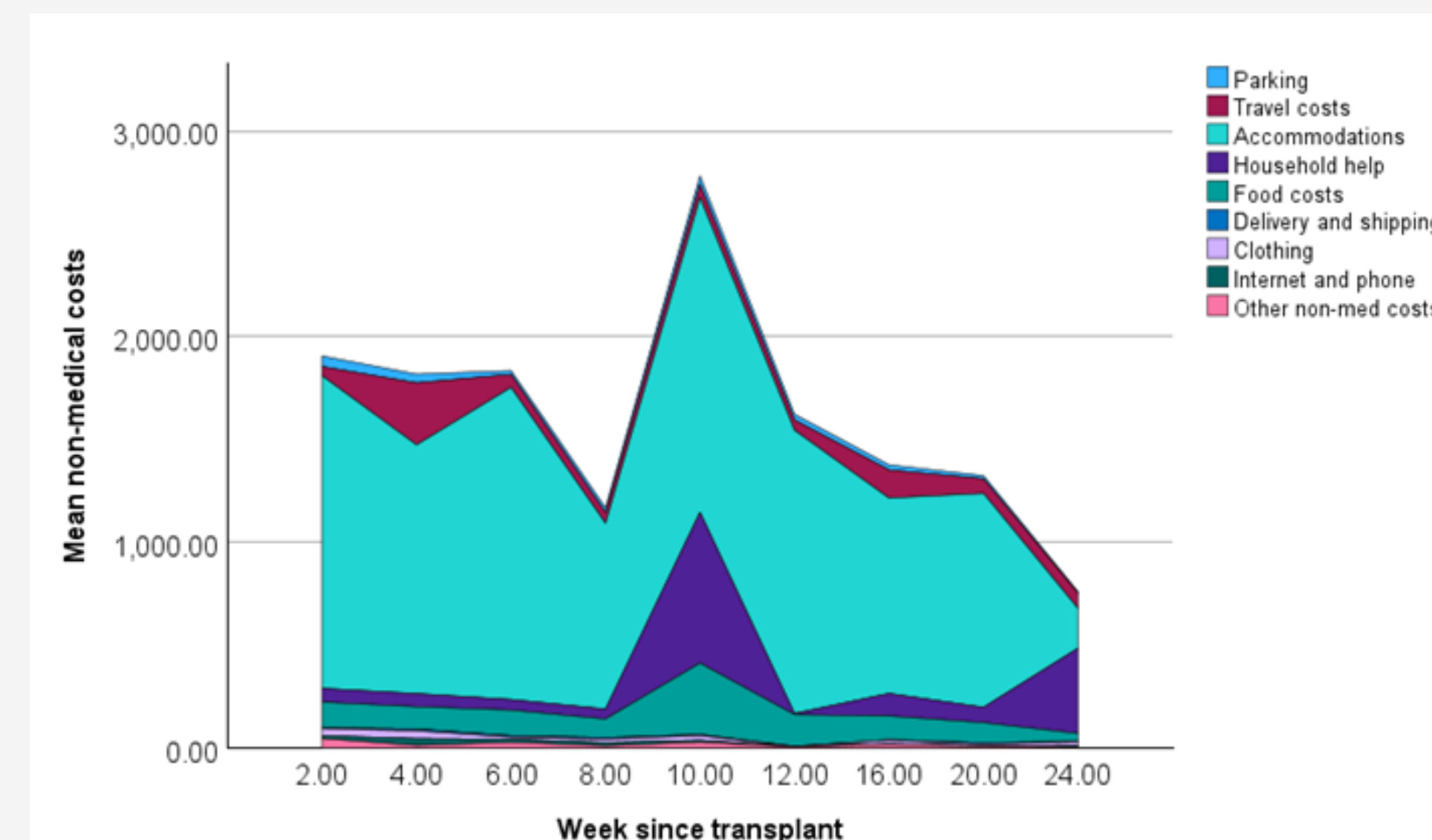


Figure 3: Median medical, living and total costs by week are hematopoietic cell transplant

Findings

- 81% or more of the costs were attributed wholly or partially to the cancer
- Mean increased medical costs ranged between \$200 to \$800 USD with homecare, prescription drugs, outpatient copays and medical equipment accounting for the most costs (Figure 1)
- Mean increased living costs ranged between \$800 to \$2,800 with accommodations (lodging) and household help accounting the largest amount (Figure 2)
- Median costs tended to decrease over time after allo-HCT with living costs accounting for substantially more of the increased costs than medical costs (Figure 3). Results showed there was a right skew with some participants paying nothing in a week and others paying more than \$10,000.
- Donor type, age, sex, marital status, education, income and performance status were unrelated to costs ($p > 0.066$).
- Not working before cancer diagnosis was associated with lower medical costs ($p = 0.008$) but not working after diagnosis was unrelated to costs (p 's > 0.24).
- Increases in comorbidity were associated with lower overall costs ($p = 0.002$) and living costs ($p = 0.010$) but not medical costs ($p = 0.150$).

Conclusion

- People undergoing allo-HCT are at risk of high out of pocket costs after transplant with many of these costs due to living costs and not necessarily medical care
- People with comorbidities may have to go without certain needs due to reduced financial resources
- Providing better insurance coverage and public insurance may help reduce the costs of care in allo-HCT

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