Determinants of Total Body Weight Loss with the Liver Reducing Diet: Insights from a Multi-Centre Study

A Rothnie, S Karim, C Jarman, T Jones, S Agboro, K Shiamtanis, A Razzaq, M A Tahir, O Niaz, M Siddiqui, C Borg, M T Adil, R Kerwat, P Jambulingam, F Rashid, O Al-Taan, A Munasinghe, V Jain, D Whitelaw, **A Askari*,** R Mamidanna



We have no potential conflict of interest to report

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Background

- Liver Reducing Diet (LRD) commonly used leading up to Bariatric Surgery
- Variations in existing diet protocols
- Reduces liver size and hepatic fat content, assists with weight loss
- Reduces operative risks and increases feasibility of Bariatric Surgery
- 5% Total Body Weight Loss (TBWL) is deemed a 'successful' diet

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Objective & Methods

• **Objectives:** assess weight loss variability during the LRD and identify demographic and clinical factors associated with achieving



• Methods:

- Two Bariatric centres in the UK (Lewisham & Luton)
- Dec 2019 Mar 2023
- Variables: demographics, weight, before and after LRD
- LRD started 2 weeks prior to Bariatric Surgery



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Attainment >5% TBWL on LRD

22.4%

Female

Results: n=970



p=0.003 Sex Male 13.2% >45 years old 16.8% **p=0.004** Age <45 years old 12.9% **Most Deprived** 17.6% **Social Deprivation** p<0.001 Least 8.5% 31.0% **Black Afro-Caribbean** Ethnicitv White 16.2%

Multivariable (Adjusted - Odds Ratio)



p=0.009

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Total Body Weight Loss (TBWL)



Conclusion

- TBWL on Liver Reducing Diet highly variable
- Low rate of TBWL (median = 2.6%)
- Only 14.7% achieved 5% or more TBWL
- Differences in patient groups
- Females, Black Afro-Caribbeans, Socially Deprived MORE likely to attain >5% TBWL
- Identifying reasons for this outcome can help stratify patient groups and ultimately permit 'customised' LRD programs

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