Weight Changes and Nutritional Risk in Substance Misuse Detoxification Patients at a Rehabilitation Hospital

NHS Mildmay Hospital

NOVA MEDICAL SCHOOL

Background

>60% individuals with substance use disorders experience **MALNUTRITION**(1)

- poor intake
- impaired absorption
- metabolic disruption

} Nutritional Risk(2)

In 2024, calories of main meals:

800 kcal ➡ **500kcal**

to control **unintentional weight gain**.

Aim

- Assess **weight changes** between hospital admission and discharge, BMI, and MUST scores in detoxification patients;
  BMI: Body Mass Index; MUST: Malnutrition Universal Screening Tool

- Evaluate the impact of the reduced meal **energy content**.

Methods

- Analysis of **2023/24 Oct.–Dec.** medical records;
- Data collection from **detox pathway**'s patients;
- Descriptive analysis using **Microsoft Excel**.

(1) Nazrul Islam SK, Hossain KJ, Ahmed A et al. Nutritional status of drug addicts undergoing detoxification: prevalence of malnutrition and influence of illicit drugs and lifestyle. British Journal of Nutrition. 2002 Nov;88(5):507–13.
(2) Mahboub N, Rizk R, Karavetian M et al. Nutritional status and eating habits of people who use drugs and/or are undergoing treatment for recovery: a narrative review. Nutrition Reviews [Internet]. 2021 Jun 1;79(6):627–35.

- 28 Detox patients (n=11 in 2023, n=17 in 2024);
- Majority was White British (39%), aged 30–64 years (mean: 48,6), and 82% male;
- Weight related outcomes between baseline/ endpoint in 2023/2024 (after menu change):

		2023	2024	
Mean weight ± SD [range] (kg)	Baseline	73,4 ± 19,5 [40,0 to 109,3]	79,9 ± 15,2 [51,5 to 118,2]	
	Endpoint	77,2 ± 17,0 [52,4 to 112,7]	81,5 ± 16,0 [56,4 to 123,4]	
Weight change ± SD [range] (kg)		3,8 ± 4,2 [−2,6 to 12,4]	1,5 ± 6,6 [−10,9 to 17,5]	
% Weight change*, overall		6,9 %	2,2 %	
underweight		23,1 %	–	
normal weight		4,2 %	1,5 %	
overweight		– 2,8 %	4,2 %	
obese		3,9 %	– 3,4 %	
% Weight change* for pt on Acamprosate		5,1 %	1,9 %	33,3% overweight/ obese
Buprenorphine		6,7 %	9,9 %	100% overweight
Methadone		17,7 %	4,0 %	50% overweight/ obese 16,7% underweight → normal weight

Key * mean % of weight change between baseline and endpoint; pt = patients

- **MUST scores** remained consistently low over time, with only slight variations.

Discussion

- Minimal weight change ⟹ despite **menu meal reduction** of **300kcal;**

- **Dietary intake, treatment**, and **other factors**[2] likely influence weight changes in people who use drugs;

  ↳ phase of detoxification, multiple drug use, duration of use, food insecurity, poverty [2], and length of stay (max 12 weeks pathway).

- Although poor nutritional status, malnutrition, or nutrient deficiencies are common in drug addicts[1], these data showed that the **MUST score** was low risk;

- BMI of drug users is generally lower than nonusers[2], but these data only had a small number of underweight patients in 2023 and none in 2024 ⟹ **limitation:** small sample size.

Conclusion

Further research into the combined effects of diet, a tailored intervention/ individual diet counselling and treatment during **detoxification** is needed.

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