The background of the slide is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text is centered in the upper half of the slide.

Nutritional Pre-optimisation in patients undergoing CAR-T

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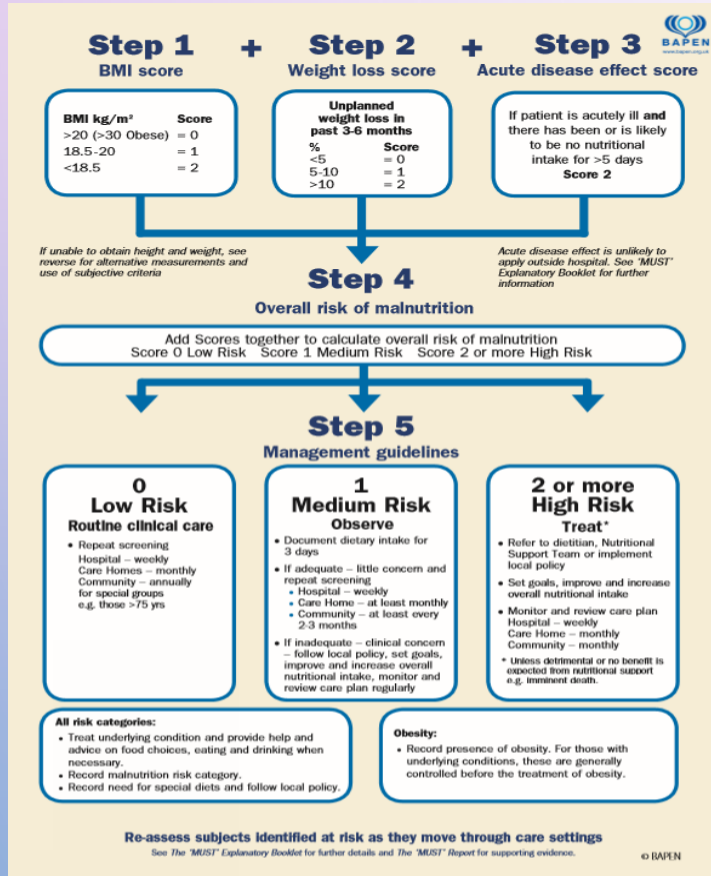
IMPORTANCE OF NUTRITION

- PATIENTS RECEIVING CAR T CELL THERAPY ARE LIKELY TO BE AT RISK OF MALNUTRITION.
- GUIDANCE ON NUTRITION SUPPORT INTERVENTIONS IN CAR T CELL THERAPY IS LACKING.
- NEED FOR RESEARCH INTO THE POTENTIAL IMPACT OF MALNUTRITION IN CAR T THERAPY.
- NEED FOR RESEARCH INTO THE IMPACT OF NUTRITIONAL INTERVENTION IN CAR T THERAPY

AIM / METHODOLOGY

- TO ESTABLISH THE NUTRITIONAL STATUS OF PATIENTS RECEIVING CAR-T CELL THERAPY AND TO EVALUATE THE ROLE OF FOCUSED NUTRITIONAL ASSESSMENT AND INTERVENTION.
- DEVELOP A CAR-T NUTRITIONAL ASSESSMENT AND INTERVENTION TOOL (nuCAR-T)

SCREENING TOOLS



Scored Patient-Generated Subjective Global Assessment (PG-SGA)

History: Boxes 1 - 4 are designed to be completed by the patient. [Boxes 1-4 are referred to as the PG-SGA Short Form (SF)]

Patient Identification Information

1. Weight (See Worksheet 1)

In summary of my current and recent weight:

I currently weigh about ____ kg
I am about ____ cm tall

One month ago I weighed about ____ kg
Six months ago I weighed about ____ kg

During the past two weeks my weight has:

decreased (1) not changed (0) increased (0)

Box 1

2. Food intake: As compared to my normal intake, I would rate my food intake during the past month as

unchanged (0)
 more than usual (0)
 less than usual (1)

I am now taking

normal food but less than normal amount (1)
 little solid food (2)
 only liquids (1)
 only nutritional supplements (1)
 very little of anything (4)
 only tube feedings or only nutrition by vein (0)

Box 2

3. Symptoms: I have had the following problems that have kept me from eating enough during the past two weeks (check all that apply)

no problems eating (0)
 no appetite, just did not feel like eating (3)
 nausea (1)
 constipation (1)
 mouth sores (2)
 things taste funny or have no taste (1)
 problems swallowing (2)
 pain; where? (3) _____
 other (1)** _____

vomiting (1)
 diarrhea (3)
 dry mouth (1)
 smells bother me (1)
 feel full quickly (1)
 fatigue (1)

**Examples: depression, money, or dental problems

Box 3

4. Activities and Function:

Over the past month, I would generally rate my activity as:

normal with no limitations (0)
 not my normal self, but able to be up and about with fairly normal activities (1)
 not feeling up to most things, but in bed or chair less than half the day (2)
 able to do little activity and spend most of the day in bed or chair (3)
 pretty much bed ridden, rarely out of bed (3)

Box 4

The remainder of this form is to be completed by your doctor, nurse, dietitian, or therapist. Thank you.

Additive Score of Boxes 1-4 A

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email: faithotter.mfp@nhs.uk or info@pg-sga.org

ASSESS NUTRITIONAL STATUS

Baseline	Date:	Risk:
Current height:	BMI:	Albumin:
Current weight:	MUST score:	Folate:
Normal weight:	PG-SGA score:	Vitamin D:
Pre-admission clinic	Date:	Risk:
Current weight:	BMI:	Albumin:
Weight change from baseline:	MUST score:	Albumin change from baseline:
	PG-SGA score:	

IDENTIFYING RISK

Nutritional risk assessment		
Low risk	Intermediate risk	High risk
Low volume disease No weight loss Albumin >30g/L MUST score 0 PG-SGA score 0-1	Bulky disease High LDH or CRP No response to bridging Albumin between 20- 30g/L Fall in albumin from baseline MUST score 1 PG-SGA score 2-8	Gastric or upper GI disease Weight loss >10% Albumin <20g/L MUST score ≥2 PG-SGA score ≥ 9
Nutritional action plan		
Low risk	Intermediate risk	High risk
Dietary advice leaflets Monitor weight at each visit Start thiamine 100mg od Replace folic acid as needed Replace Vitamin D as needed	Prescribe Fortisip / juice BD Dietary advice leaflets Monitor weight at each visit Start thiamine 100mg od Replace folic acid as needed Replace Vitamin D as needed	Arrange admission to establish NG feeding Dietary advice leaflets Monitor weight at each visit Start thiamine 100mg od Replace folic acid as needed Replace Vitamin D as needed

RESULTS

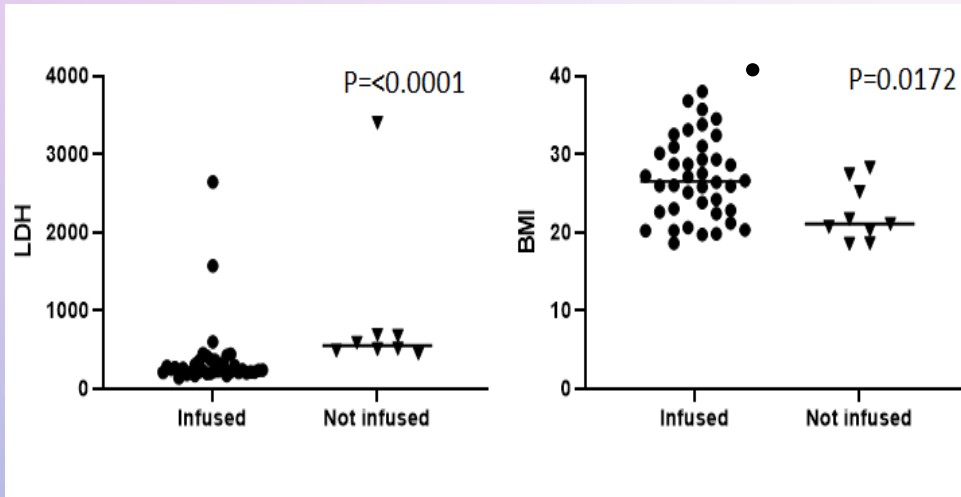
- 40 PATIENTS WHO RECEIVED CAR-T CELL INFUSION WERE INCLUDED IN THE ANALYSIS. A FURTHER 9 PATIENTS WHO DIDN'T ULTIMATELY RECEIVE A CAR-T INFUSION WERE ALSO ANALYSED.

RESULTS – BASELINE CHARACTERISTICS

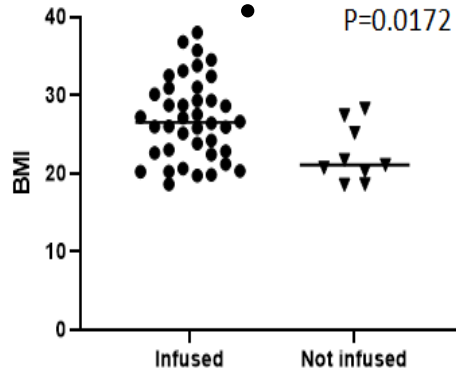
	Total Infused	Pre nu-CAR-T (n=30)	Post nu-CAR-T (n=10)	Not infused (n=9)
Male	73%	66%	90%	44%
Age	64.5	65	63.5	61
Diagnosis				
DLBCL	60%	63%	50%	78%
tFL	23%	23%	20%	11%
MCL	17%	13%	30%	11%
Product				
Axi-cel	75%	78%	70%	67%
Tisa-gen	7%	10%	0%	22%
Brexu-cel	18%	13%	30%	11%
Gastric disease	15%	17%	10%	11%

DATA

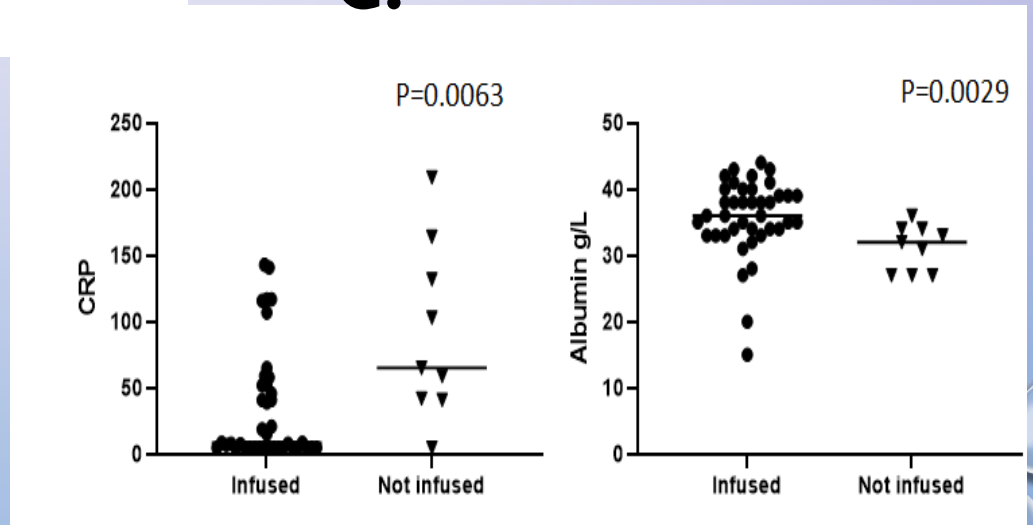
A.



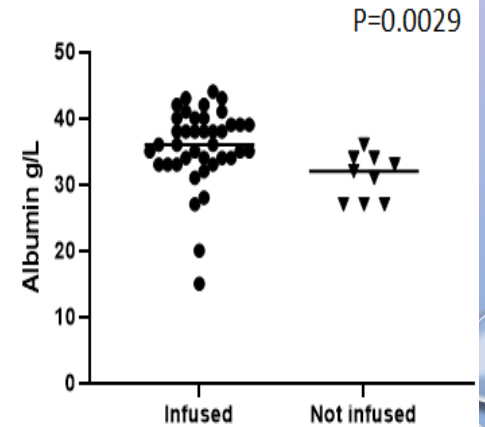
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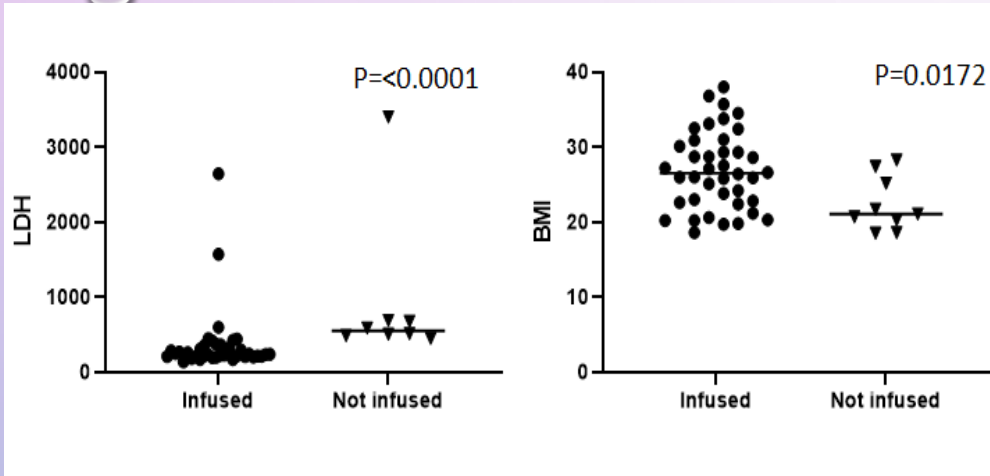
C.



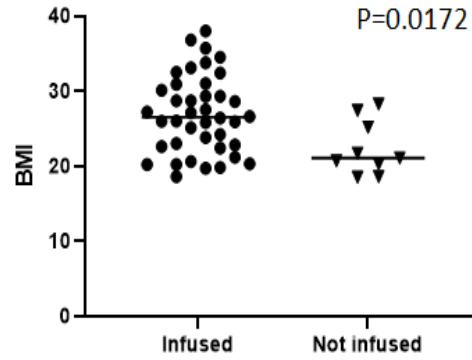
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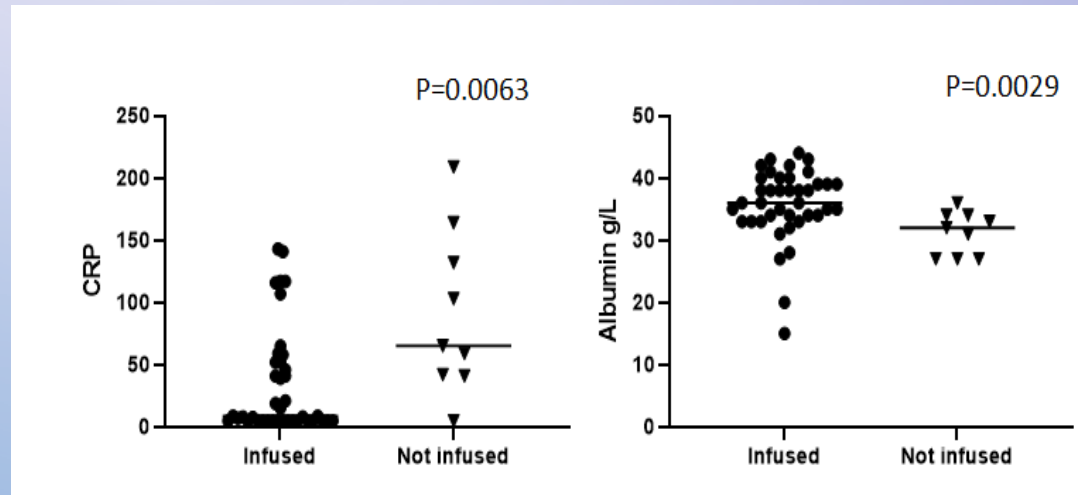
A.



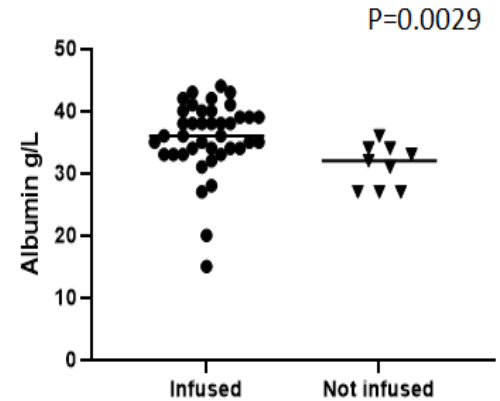
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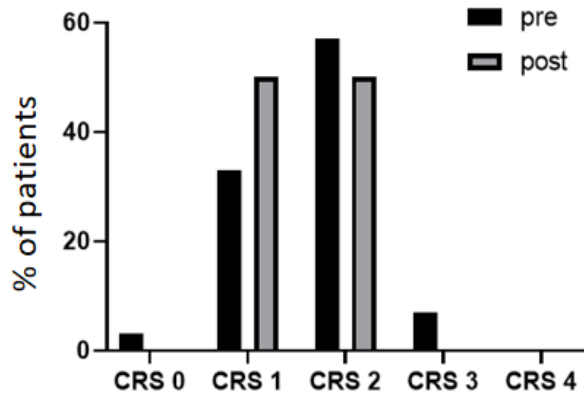
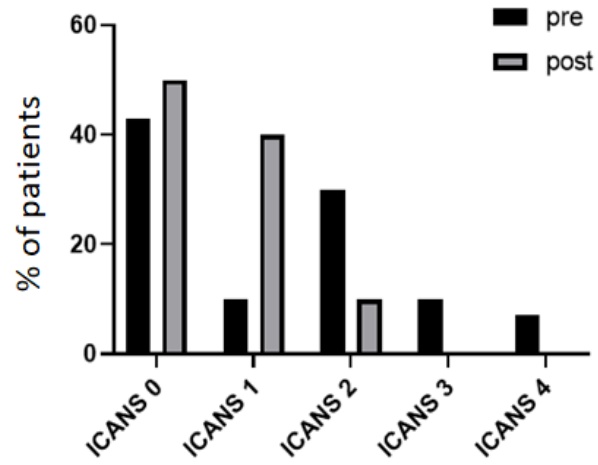
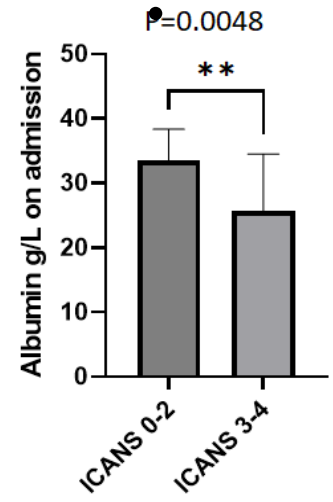


C.



D.



A.**B.****C.**

CONCLUSION

- CLINICIAN LED NUTRITIONAL INTERVENTION CAN IMPROVE NUTRITIONAL STATUS FOR CAR-T PATIENTS AT THE TIME OF INFUSION WHICH MAY RESULT IN SHORTER DURATION OF HOSPITAL ADMISSIONS AND REDUCED SEVERITY OF NEUROLOGICAL TOXICITY. LONGER FOLLOW UP ACROSS A LARGER COHORT WILL BE REQUIRED TO DETERMINE THE IMPACT OF NUTRITIONAL OPTIMIZATION ON PATIENT QUALITY OF LIFE AND OVERALL TREATMENT OUTCOMES.