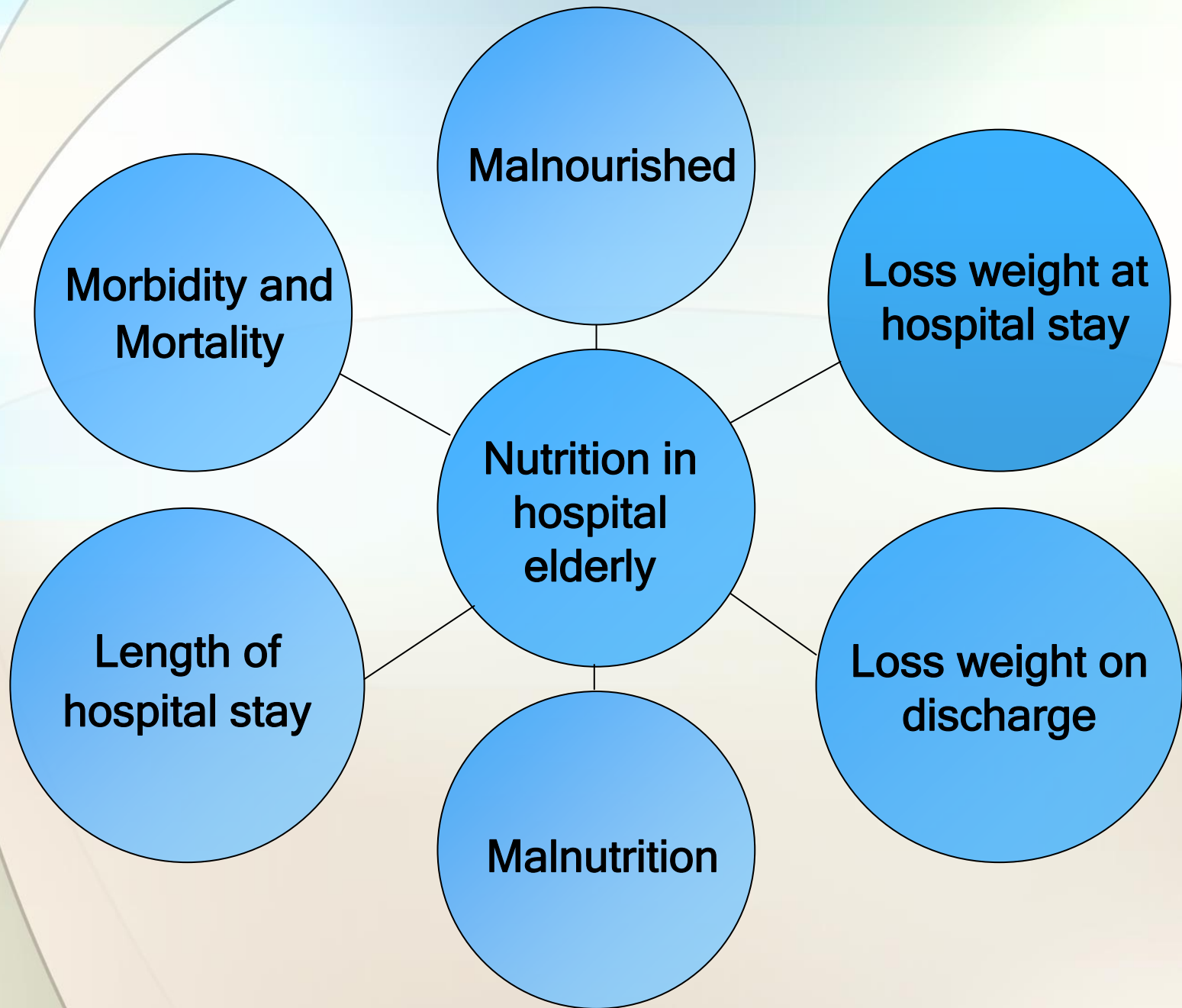


Nutritional Building for Elderly Inpatients at Nutritional Risk: A Multidisciplinary Approach

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Background

- ◆ Early detection of malnutrition with early intervention may correct patient's reversible nutritional problem (Napier, 1995; Thomas et al, 2000)
- ◆ Nutritional care of elderly patients in hospital has been in the spotlight
- ◆ Effort to prevent, identify and manage those who are malnourished and malnutrition need to be addressed



Malnourished

Loss weight at hospital stay

Morbidity and Mortality

Nutrition in hospital elderly

Loss weight on discharge

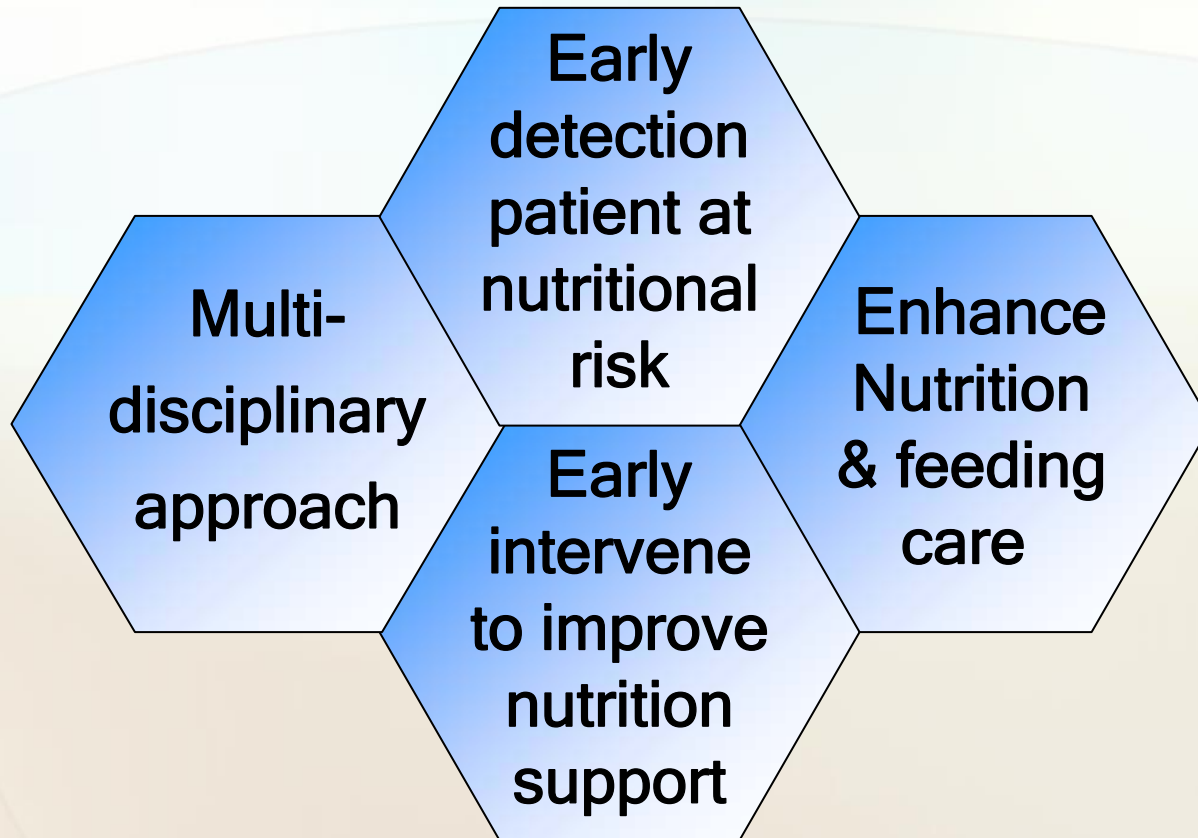
Length of hospital stay

Malnutrition

Programme

- ◆ Nutrition and Feeding Enhancement Programme
 - Ward-based service programme implemented in FYKH in 2006
 - To enhance nutritional building for elderly inpatients at nutritional risk

Objectives



Method

Inclusion Criteria:

- ◆ Inpatient; and
- ◆ Aged ≥ 65 years; and
- ◆ Admitted to Medical and Geriatric Ward; and
- ◆ Oral feeding; and
- ◆ Medical condition stabilized; and
- ◆ Criteria of Malnutrition (Fulfills one or more)
Nutrition Status Parameter by COC Dietetics

Criteria of Malnutrition

- ◆ Body Mass Index (BMI) $<18.5 \text{ kg/m}^2$
- ◆ Serum albumin level (SAL) $<29 \text{ g/L}$
- ◆ Recent body weight (BW) loss (Unintentional)
 - $>5\%$ in 1 month or
 - $>7.5\%$ in 3 months or
 - $>10\%$ in 6 months (if available)
- ◆ Oral intake- $<50\%$ of offered portion for 1 week

Assessment

- ◆ Nutrition Screening
- ◆ Feeding Assessment

Nutrition Screening

New admit and oral feed patient

Patient weight on admission

Height measure
(body height/ knee height/ demi span/ arm span)

Calculate BMI

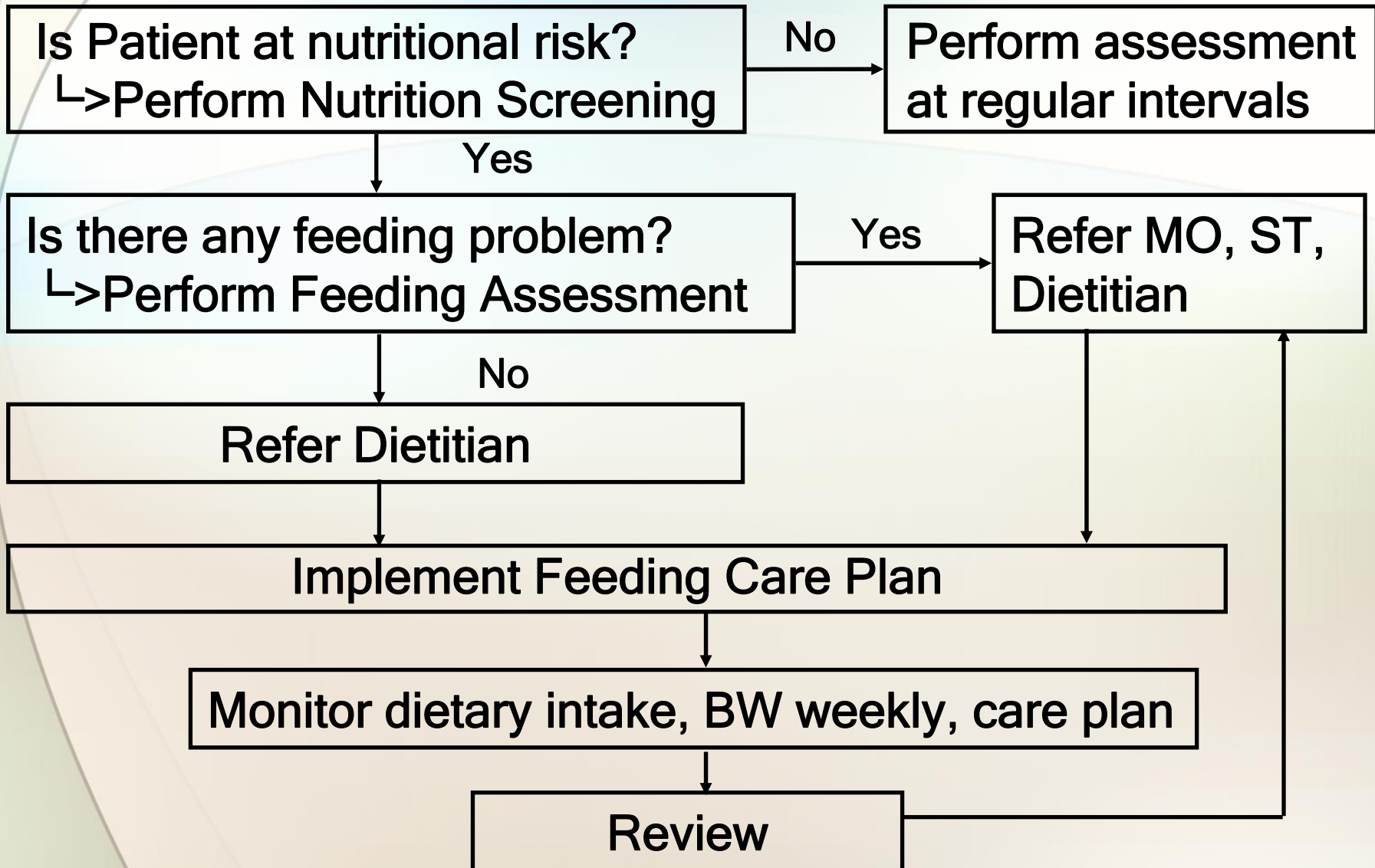
Assess BMI, SAL, BW loss (unintentional)

Detect any patient at risk of malnutrition

Feeding Assessment

- ◆ Screen feeding status
- ◆ Identify feeding problems
- ◆ Develop feeding care plan

Workflow



Primary Outcome

- ◆ Body Weight
- ◆ Body Mass Index
- ◆ Serum Albumin Level
- ◆ Feeding capacity

Analysis Method

- ◆ Data were compared before and after the programme (upon discharge)
- ◆ Paired-sample t test
- ◆ 5% significance level
- ◆ Statistical Package for Social Sciences (SPSS 15.0)

Result

- ◆ Study period:
February 2006 to March 2007
(14months)
- ◆ Subject:
101 inpatients

Demographic Data

	Pre-	Post-
Gender	46 male; 55 female	
Age (year)	87.10	
LOS (day)	17.45	
BW (kg)	36.55	37.01
BMI (kg/m ²)	14.94	15.09
SAL (g/L)	30.70	31.74

Body Weight

- ◆ Overall there was 1.25% increase in BW (mean weight gain=0.462kg)
 - 54 patients gained weight (mean weight gain=1.56kg)
 - 25 patients remained same weight
 - 21 patients loss weight (mean weight loss=1.35kg)

Body Mass Index

- ◆ Overall there was 1.00% increase in BMI (mean gain=0.152kg/m²)
 - 53 patients showed an increase in BMI (mean gain=0.6kg/m²)
 - 22 patients remained the same
 - 26 patients showed a decrease in BMI (mean loss= 0.6kg/m²)

Serum Albumin level

- ◆ Overall there was 3.38% increase in SAL (mean gain=0.104g/L)
 - 43 patients showed an increase in SAL (mean gain=3.21g/L)
 - 40 patients remained no change
 - 18 patients showed a decrease in SAL (mean loss=1.38g/L)

Significant Findings

- ◆ Body Weight
- ◆ Body Mass Index
- ◆ Serum Albumin Level

Paired-sample t tests: BW

Paired Differences	Mean	SD	95% CI of the Difference		p-value (2-tailed)
BW (Pre-Post)	-0.462	1.922	-0.842	-0.083	0.017*

* Statistically significant at 5% significance level

Paired-sample t test: BMI

Paired Differences	Mean	SD	95% CI of the Difference		p-value (2-tailed)
BMI (Pre-Post)	-0.152	0.786	-0.307	-0.003	0.045*
* Statistically significant at 5% significance level					

Paired-sample t test: SAL

Paired Differences	Mean	SD	95% CI of the Difference		p-value (2-tailed)
SAL (Pre-Post)	-0.104	3.256	-1.682	-0.397	0.002*

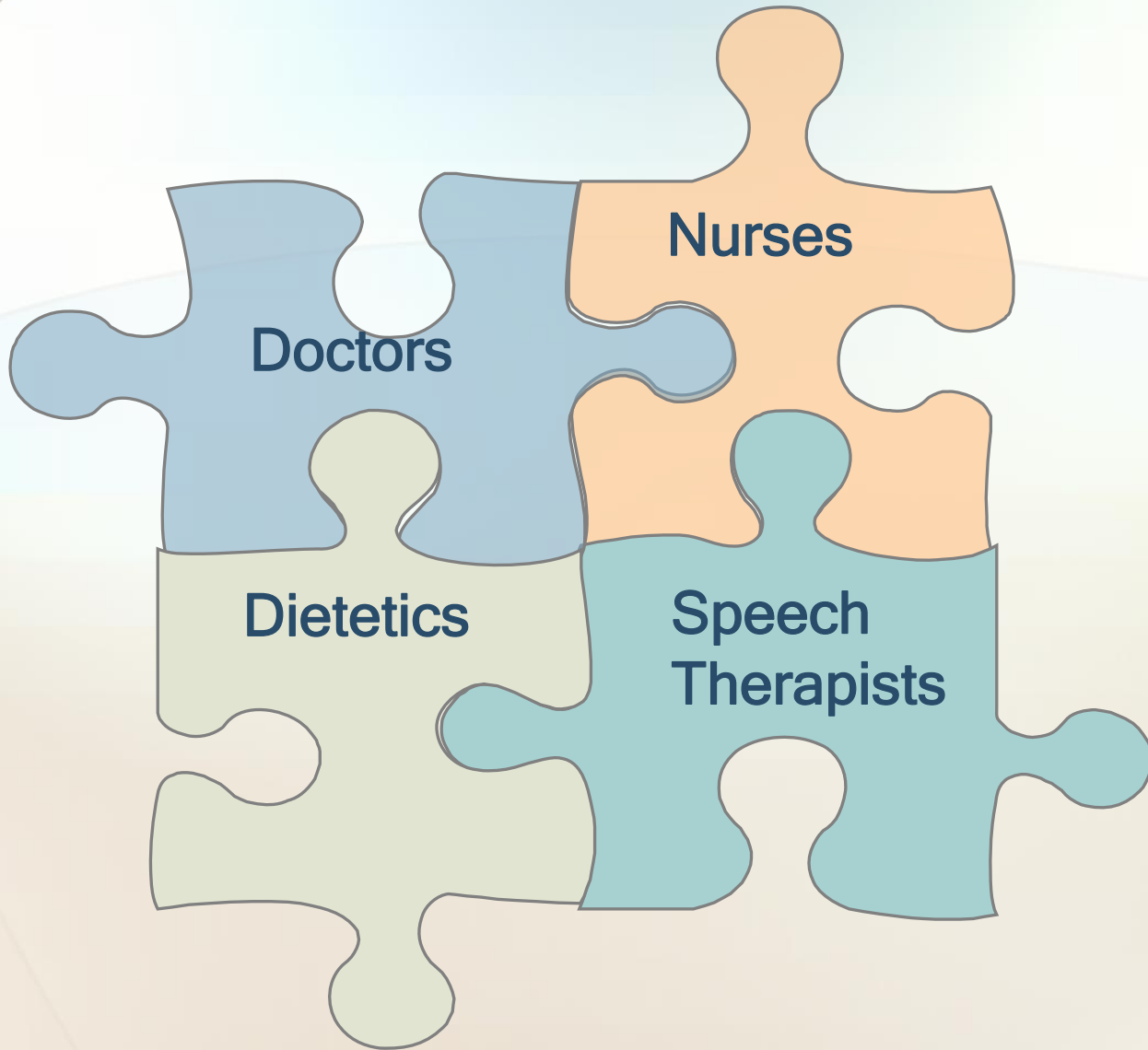
* Statistically significant at 5% significance level

Feeding Capacity

N		Independent Feed	Dependent/ Assisted feed	Oral feed	Enteral feed
101	Pre	23	78	101	0
	Post	26	61	87	14

Conclusion

- ◆ Early detection of those elderly patients who are at nutritional risk could improve nutritional status with early intervention
- ◆ Interventions implemented in a structural and multidisciplinary approach

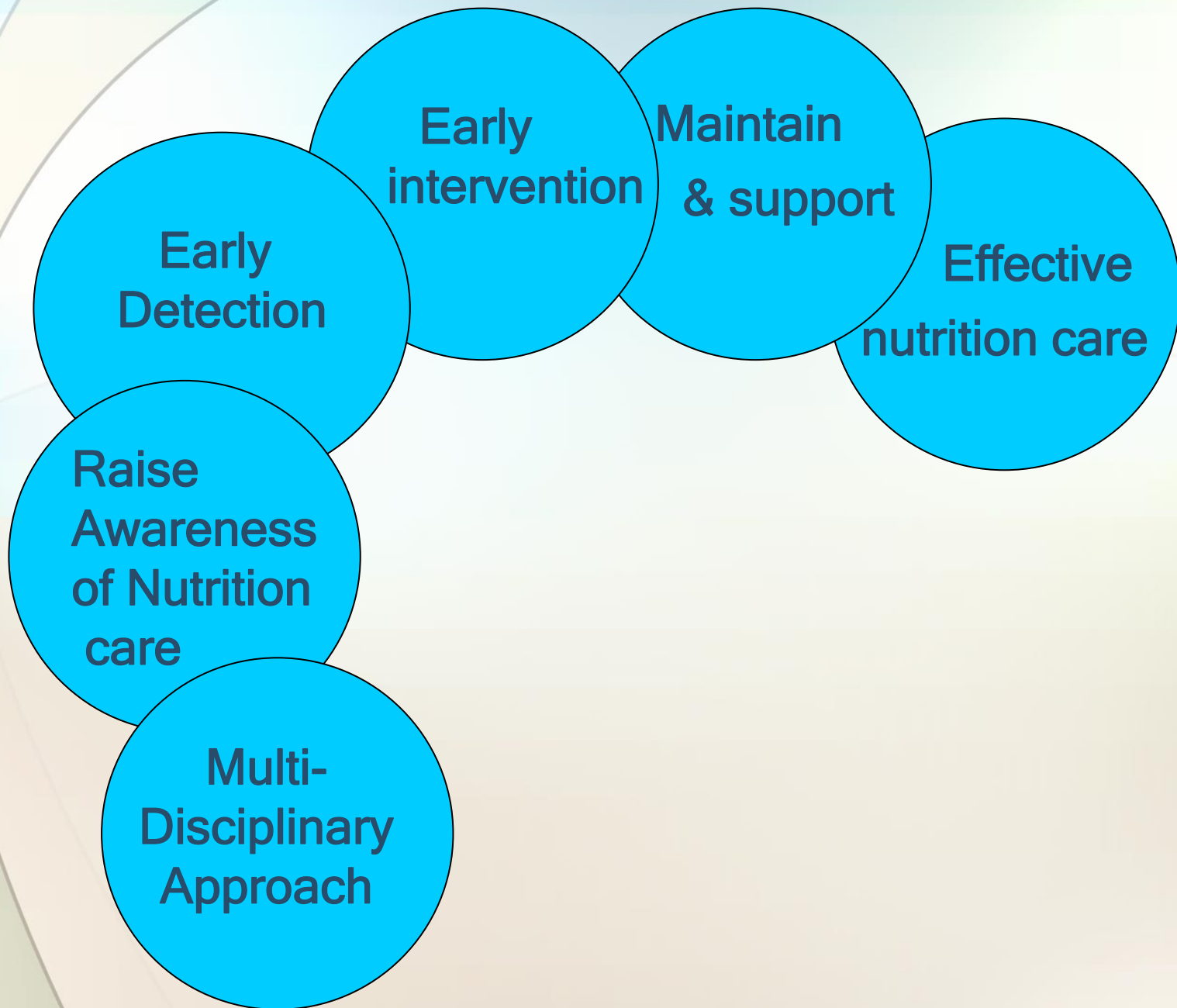


Doctors

Nurses

Dietetics

**Speech
Therapists**



Recommendation

- ◆ Nutrition screening is a **routine** part and is the the **first step** of nutritional care

Thank you