

Project Title

Revitalising the Post-Alveolar Bone Graft Diet for Patients with Clefts by The MasterClefts

Project Lead and Members

Selena Ee-Li Young, Yulanda Heng Kiat, Goh Aik Wei, Nicole Lee Kim Luan, & Gale Lim Jue Shuang

Organisation(s) Involved

Sengkang General Hospital

Healthcare Family Group(s) Involved in this Project

Medical, Allied Health, Nursing

Applicable Specialty or Discipline

Head, Craniofacial Speech Pathology; Dentistry; Plastic, Reconstructive & Aesthetic Surgery; Nutrition and Dietetics; Speech Therapy

Project Period

Start date: Sep 2020

Completed date: Jul 2023

Aims

- Revamp/upgrade the hospital menu > ensure every meal is nutritionally-balanced and varied (with no worsening of wound complications)
- Develop comprehensive resources to support caregivers in meal preparation in English and Chinese.

Background

- Patients with clefts require alveolar bone grafting (ABG) at 9-14 years to restore the maxilla for permanent tooth eruption.
- After surgery, they are advised to consume a soft diet for 6-8 weeks to minimise chewing and facilitate wound healing.
- Patients lament inpatient food is bland, unappetising and not nutritionally-balanced. Though they sneak in and consume food which do not comply with texture-modified guidelines, there is a low occurrence of food-related wound complications.

Methods

See poster appended/below

Results

- a) Following menu revitalisation and roll-out, patient and caregiver experience data were collected, and clinicians' evaluations of wound complications/healing were reviewed.
- b) Since September 2020 (Post-intervention), patients were offered a wider variety of food options across different food groups with varying preparation methods. 75% of caregivers said that the video ($p<.01$) and booklet ($p<.05$) were helpful in providing dietary inspiration. Also, food-related wound complications decreased from 12 to 9%.
- c) More dishes were launched in February 2023, following two more rounds of food tasting in November 2021 and March 2022.
- d) Caregivers also requested for booklet information in Chinese. This was completed in July 2023.

Conclusion

- a) Our initiative was innovative as we did not find any other Cleft Centres having diets that highly considered nutritional aspects

- b) This QI project enhanced patient and caregiver experience, and also refined other efficiencies in work processes amongst cleft team members.
- c) We have shared resources with other local and international cleft team professionals who prepare older patients for cleft palate repairs and ABGs.

Project Category

Care & Process Redesign

Value Based Care, Patient Satisfaction

Keywords

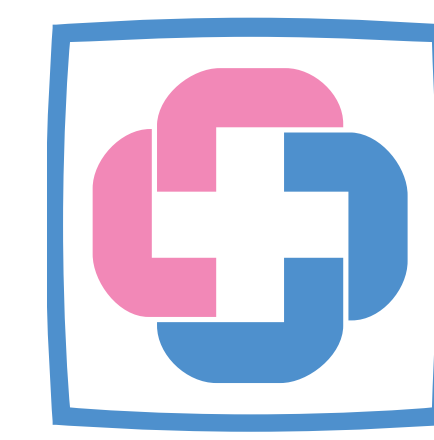
Post Surgery, Food Tasting

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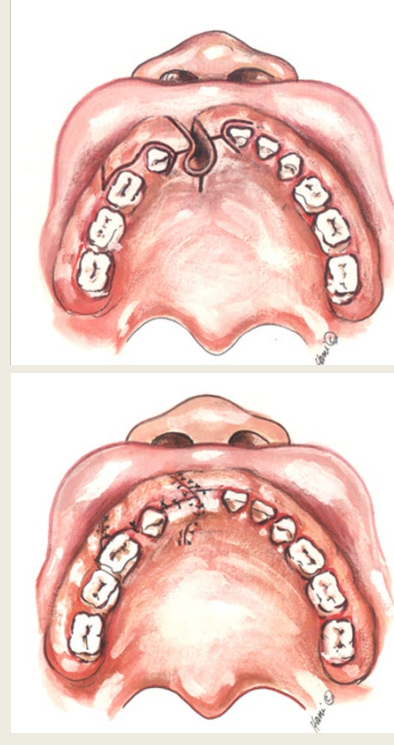
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1. BACKGROUND

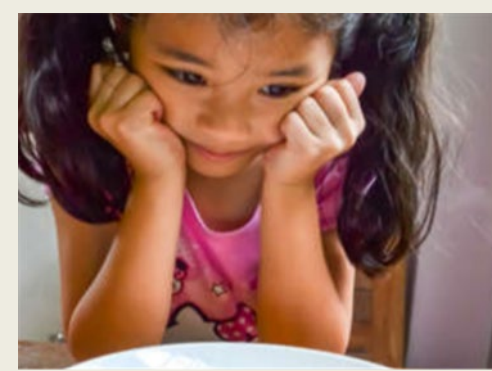
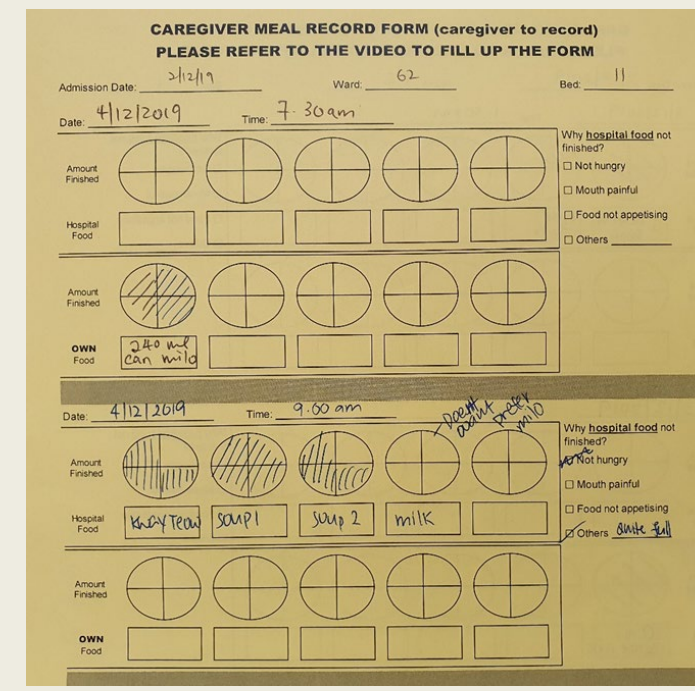
- Patients with clefts require alveolar bone grafting (ABG) at 9-14 years to restore the maxilla for permanent tooth eruption.
- After surgery, they are advised to consume a soft diet for 6-8 weeks to minimise chewing and facilitate wound healing.
- Patients lament inpatient food is bland, unappetising and not nutritionally-balanced. Though they sneak in and consume food which do not comply with texture-modified guidelines, there is a low occurrence of food-related wound complications.



Hospital ABG diet
(Clockwise from top left: steamed egg, 2 bowls of clear soup, cut-up rice noodles)

A root cause analysis was conducted with 23 patients and caregivers via interviews and surveys to understand:

- **Food wastage** ["Food is terribly unappetising/bland" (40%), "Need to add soya sauce" (30%)]
- **Caregivers' perspectives** ["Why are there no blended vegetables/fruits?", "What food can s/he eat for 6-8 weeks?" "Should I buy a blender?" "How small should a 'small' piece be" (50% felt stressed with prep)]
- **Patients' perspectives** ["I'm so bored with the meals", "Help! Mum is preparing the same food as the hospital"]



2. AIMS

- Revamp/upgrade the hospital menu > ensure every meal is nutritionally-balanced and varied (with no worsening of wound complications)
- Develop comprehensive resources to support caregivers in meal preparation in English and Chinese.

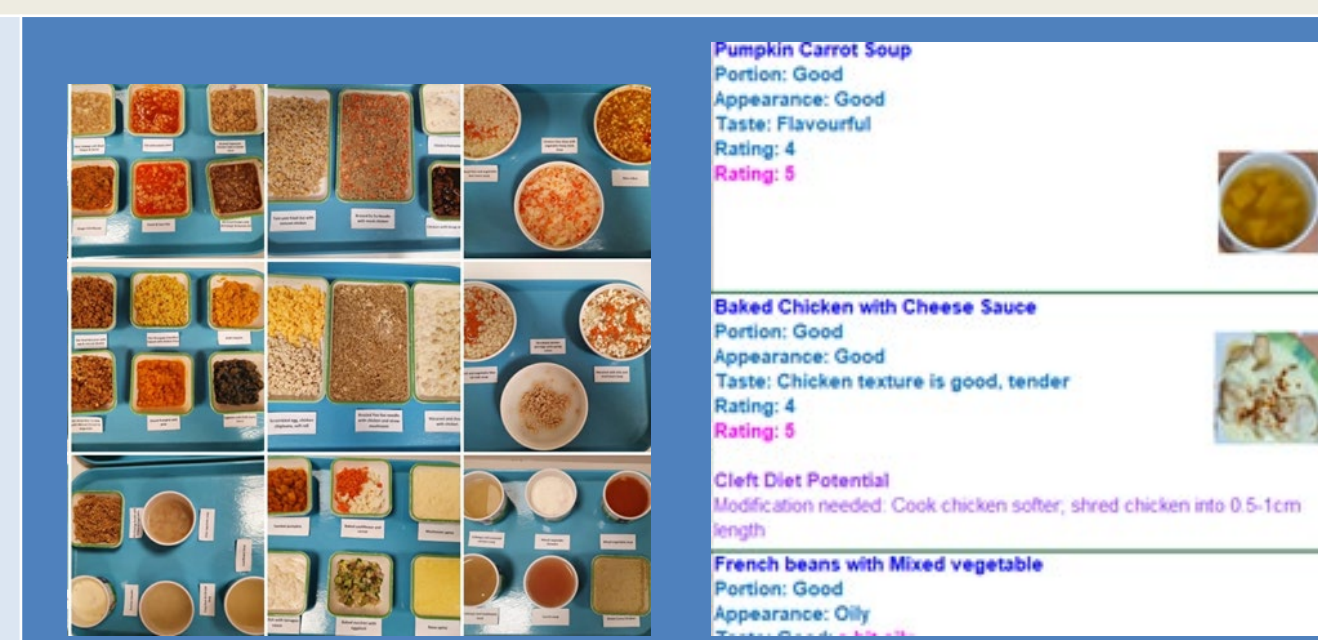
3. METHODOLOGY

Speech therapists collaborated with dietitians and catering staff to conduct food-tasting sessions to improve the current menu and check texture suitability. The team also developed resources for patients, caregivers, and health professionals.

Interventions

Food Tasting to ensure dishes were

- Nutritionally-balanced
- Visually appetising
- Tasty
- Of the correct texture



Post-ABG menus revitalised

- Daily variety of dishes
- All food groups represented
- Increase in protein dish options (to support wound healing)

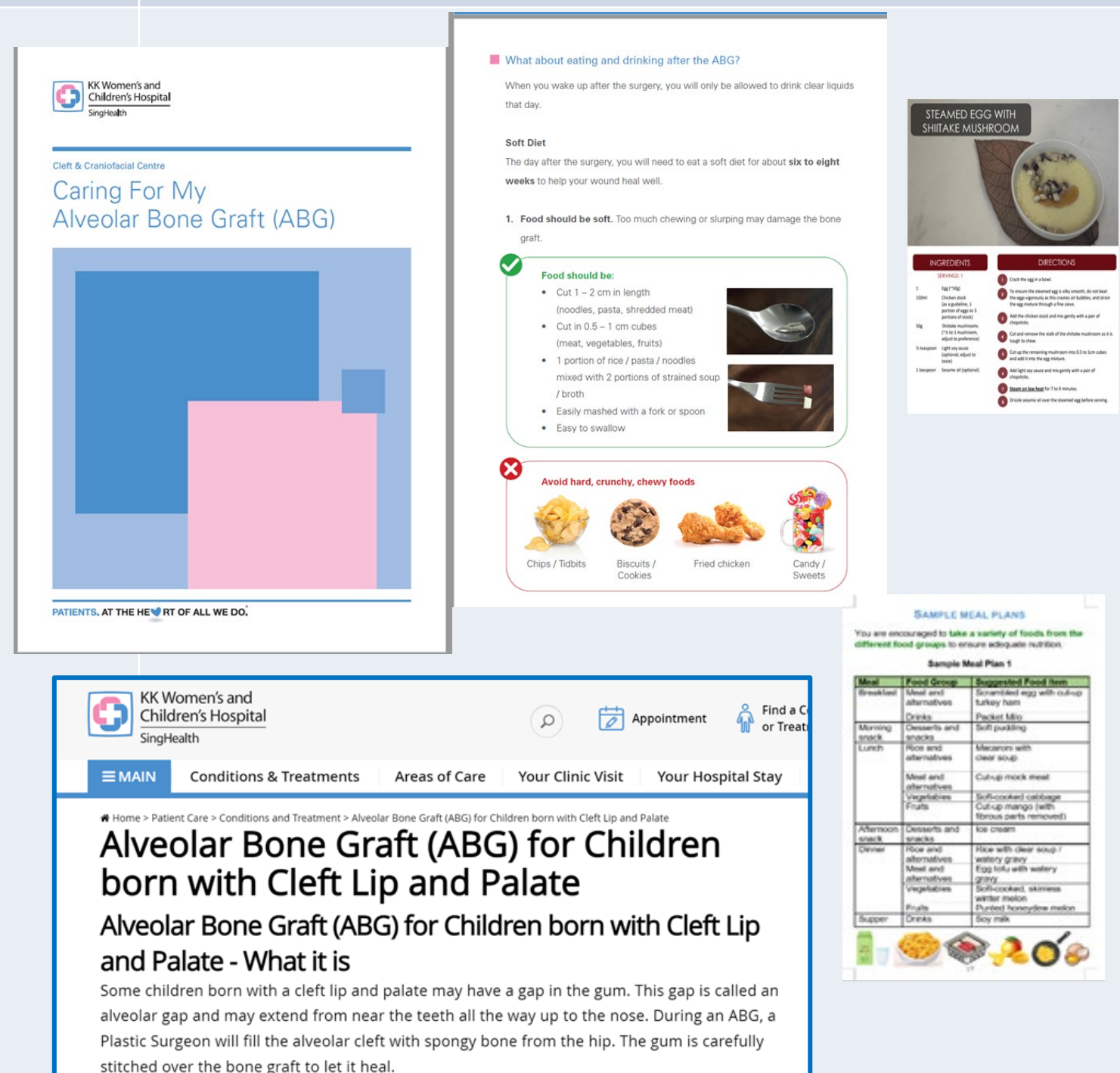
FRIDAY	Saturday	Sunday
MEAL/FAST	MEAL/FAST	MEAL/FAST
Breakfast: Steamed Egg, Soft Boiled Egg, Toast	Breakfast: Steamed Egg, Soft Boiled Egg, Toast	Breakfast: Steamed Egg, Soft Boiled Egg, Toast
Lunch: Pumpkin Carrot Soup, Steamed Chicken with Cheese Sauce, French Beans with Mixed Vegetable	Lunch: Pumpkin Carrot Soup, Steamed Chicken with Cheese Sauce, French Beans with Mixed Vegetable	Lunch: Pumpkin Carrot Soup, Steamed Chicken with Cheese Sauce, French Beans with Mixed Vegetable
Dinner: Steamed Chicken with Cheese Sauce, French Beans with Mixed Vegetable, Soft Boiled Egg	Dinner: Steamed Chicken with Cheese Sauce, French Beans with Mixed Vegetable, Soft Boiled Egg	Dinner: Steamed Chicken with Cheese Sauce, French Beans with Mixed Vegetable, Soft Boiled Egg

Resources uploaded online & printed

- Food lists
- Meal plans
- Sample recipes
- Post-op care
- Safe eating & drinking: Tips



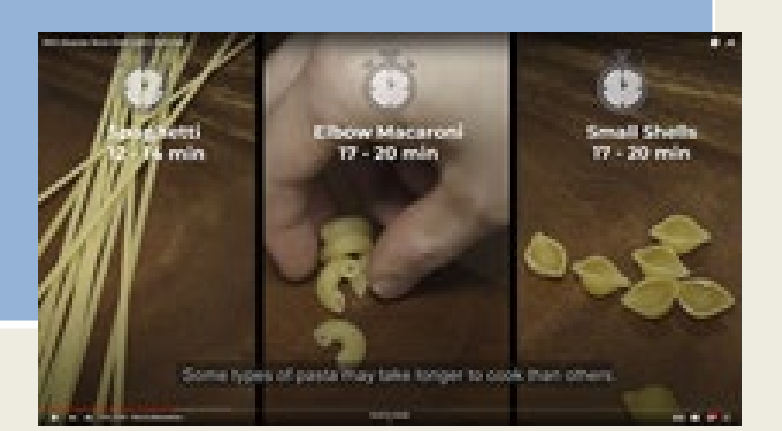
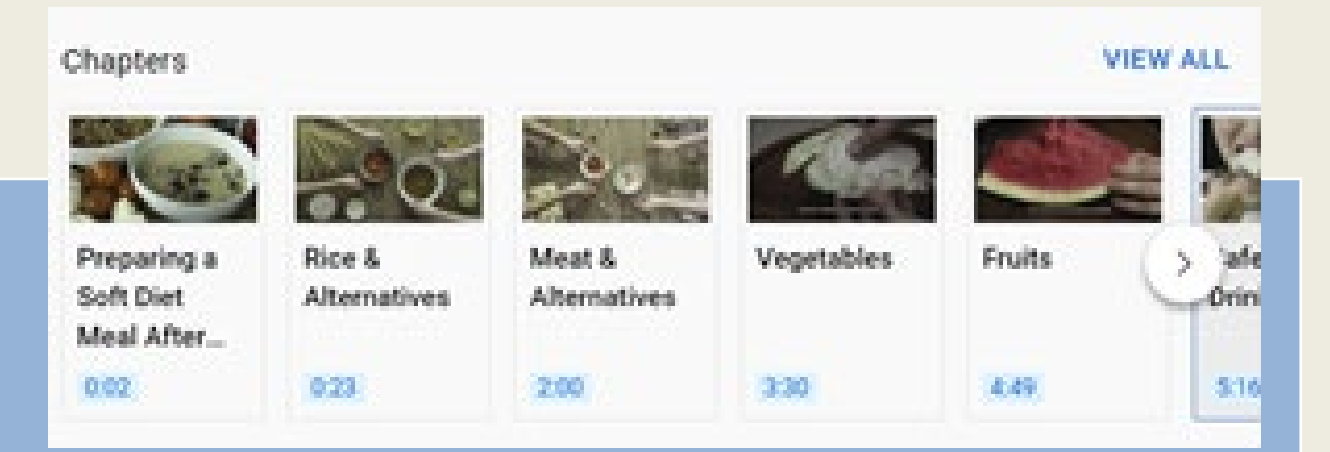
QR Code to access resources



Interventions (cont'd)

Video for caregivers

- Meal prep guidelines
- Particle sizes
- Cooking times (e.g., for different pasta types)
- Tips for safe eating and drinking



4. RESULTS

- Following menu revitalisation and roll-out, patient and caregiver experience data were collected, and clinicians' evaluations of wound complications/healing were reviewed.
- Since September 2020 (Post-intervention), patients were offered a wider variety of food options across different food groups with varying preparation methods. 75% of caregivers said that the video ($p < .01$) and booklet ($p < .05$) were helpful in providing dietary inspiration. Also, food-related wound complications decreased from 12 to 9%.
- More dishes were launched in February 2023, following two more rounds of food tasting in November 2021 and March 2022.
- Caregivers also requested for booklet information in Chinese. This was completed in July 2023.
- Other findings are summarised below:



Stakeholders	Results
Patients	• 70% found new dishes tasty
Dietitian & Speech Therapist	• Continue regular audits to ensure correct food particle sizes and meal portions accurate
Cleft Team Professionals	• All use standardised resources for pre and post-ABG wound care & diet counselling • QR codes & booklets available in all clinic rooms • Offer this diet to patients with clefts aged above 2 years
Cleft Team Nurses	• 50% less time spent answering calls/WhatsApp messages from caregivers requesting meal ideas
Catering Staff	• No need to use special gadgets to cut food into specific particle sizes
Caregivers	• Cost savings (no need to spend additional time and money to buy blenders or food from retail outlets) • Cost avoidance (fewer follow-up visits for post-surgery complications) • Booklet and video information accessible online
Hospital	• Less food/ingredient wastage • Fewer patient complaints about food

5. CONCLUSIONS

- Our initiative was innovative as we did not find any other Cleft Centres having diets that highly considered nutritional aspects
- This QI project enhanced patient and caregiver experience, and also refined other efficiencies in work processes amongst cleft team members.
- We have shared resources with other local and international cleft team professionals who prepare older patients for cleft palate repairs and ABGs.

Acknowledgements

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