Dietitian's Perspective on Stroke and PEG

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Covering Today:

- Malnutrition post stroke
- Enteral feeding using NG
- Transition to oral feeding
- Longer term enteral feeding using PEG
- Ethics and decision making
- Secondary stroke risk reduction

Implications of delaying nutrition

- Malnutrition – 4 general causes
  - Impaired appetite – loss of appetite, pain, nausea, vomiting, anxiety, dysphagia, lack of food, dentition, sore mouth etc
  - Impaired digestion and absorption – medical or surgical problems affecting stomach, GI tract eg pancreas, liver
  - Altered requirements – increased metabolic rate
  - Excess nutrient losses – stomas, drains and fistula

Effects of malnutrition

- Increased risk of infection
- Increased risk of pressure area and impaired healing
- Longer hospital stay
- Slower and less functional recovery post stroke
- Increased in poor outcome and mortality

Malnutrition post stroke

- Malnutrition can be up to 60% post stroke
- No internationally accepted gold standard
- Use of screening tool – then dietitian assessment
- Albumin is a poor measure – decreases with increased inflammatory markers
- Pre-albumin equally affected but may be more relevant
- Dysphagia and need for texture modification
- Skeletal muscle mass and subcutaneous fat stores
- Can be affected by factors secondary to stroke – immobility, muscle atrophy

Specifically for stroke:

- Post stroke nutrition impacted negatively by
  - Dysphagia and need for texture modification
  - Patient is unable or unwilling to self feed
  - Loss of appetite and nausea/vomiting
  - Onset of depression / low mood
  - Visual field and perceptual loss
  - Upper limb paresis
  - Cognitive deficit
  - Inability to use utensils properly
  - Fatigue post stroke

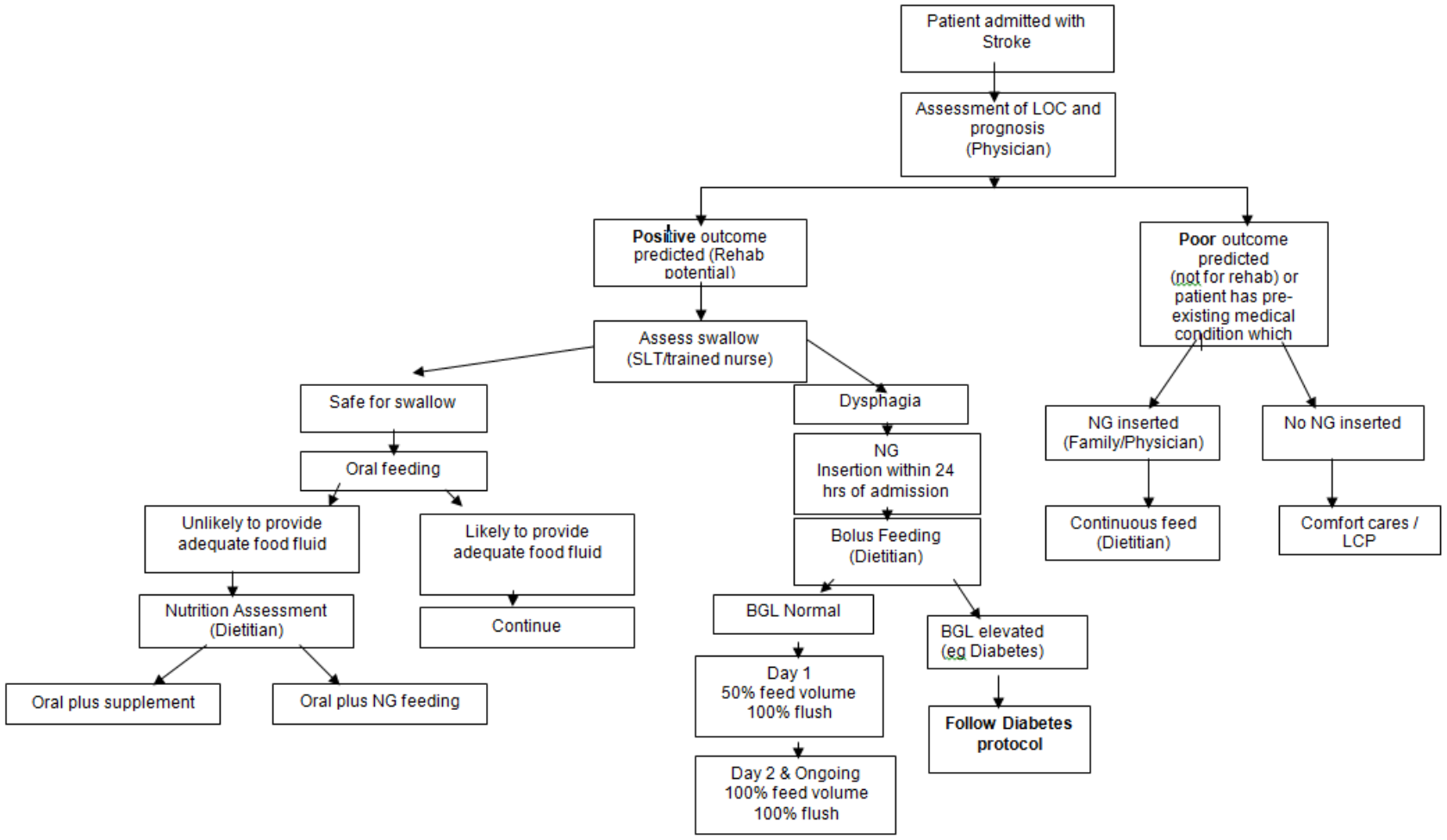
On admission:

- Interdisciplinary assessment within first 24 hours
- SLT or nurse swallowing assessment
- If the patient has a compromised swallow, then SLT will make a recommendation regarding food and fluid texture or NBM status
- If NBM, the medical team begin the pathway for the decision making for a feeding tube to be placed or not
- Goal is that if a patient can commence feeding, then ideally this should be started within 24 – 48 hours of admission

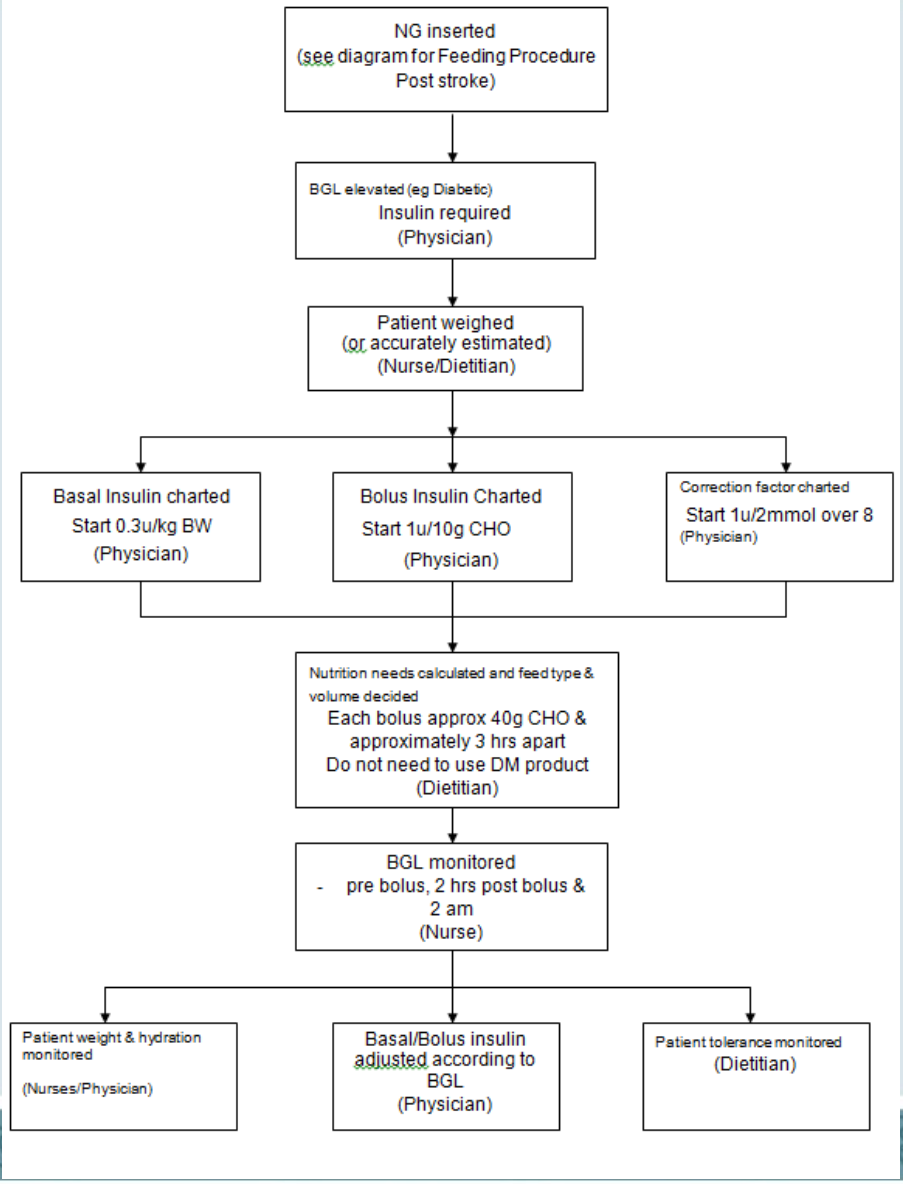
NG Feeding

- NG sometimes primarily placed to enable administration of medicine
- Once it is placed for this, then decision is often made to begin feeding and provision of fluid
- Ethical considerations need to be made at this stage – to feed or not to feed

NG feeding pathway – Waikato Hospital:



NG Feeding for DM – Waikato Hospital



Key Points

- If possible and in best interest of patient, early feeding is preferred
- Bolus feeding is preferred for most
- Full volume within 24 hours
- Continuous pump feeding if patient very unwell or unstable
- Normal feeding solution for DM with basal bolus insulin as needed
- Clear instructions needed

Transition from enteral to oral

- SLT is key
- Often modified texture food and fluid
- Provision of oral day time supplements
- Possible change of feeding to overnight continuous pump feeding to allow daytime appetite
- Can consider daytime bolus between meals
- Tube removal when patient is eating / drinking >75% of oral needs
- Consider sustainability for both food and fluid orally

PEG

- If after 6 weeks NG
- If patient repeatedly removes NG despite protection
- If patient is not going to transition to oral feeding sufficiently to maintain nutrition status via oral alone
- Surgical procedure with associated risks
- PEG can be contraindicated
- More comfortable for patients
- Initially care needed with transferring – belts
- Can be gastric or small bowel placement

Ethical considerations of enteral feeding

- Respect for patient's autonomy, nonmaleficence, beneficence and justice
- Ethic issues around food and hydration are complex and emotive
- Food and fluid have significant psychological and physiological functions that play essential roles in patient care
- Food and fluid have strong connections to us all regarding nurturing, religion, culture, social and personal beliefs
- Food and fluid can be effective in that they maintain life but by themselves they cannot prevent imminent death

Continued:

- Which decision is more ethically challenging? – early NG feeding post stroke or PEG insertion for long term feeding?
- Often once a NG tube is inserted, it is very difficult for a patient or family to decide to have that tube removed if the patient outcome is poor
- Value of advanced directive and EPOA

Secondary stroke risk reduction

- Mediterranean type diet seems to be key:
- Eating primarily plant based foods
  - High in vegetables and fruit, nuts, seeds, legumes, pulses, whole grains, olive oil, fish and shell fish,
  - Low in red meat (and other saturated fats), salt, refined carbohydrate and sugars
  - Moderate use of poultry, cheese, milk, eggs
- Small amount of ETOH – don't start ETOH is currently don't drink
- Waist measurement more relevant than BMI