MEALTIME PULSE OXYMETER STUDY

General Guidelines

1. BASELINE: SaO_2 and pulse normals outside of eating. This is best done for one minute just before mealtime.

2. MEALTIME RANGE: Impact of eating on SaO_2 and pulse once coordination of respiration and swallowing has begun. This s compared to the baseline.

   SIGNIFICANT IF:
   a) SaO_2 drops into 80's.
   b) SaO_2 does not rebound into 90's (best if 93% plus).
   c) Values decline steadily over course of meal.
   d) Pulse rate increases and stays excessively elevated without returning close to baseline rate.

3. LENGTH OF MEALTIME: Mealtimes which require longer than 30 minutes to complete place the person at risk for fatigue leading to further problems with coordination of respiration and swallowing.

4. COUGHING EPISODES: Observe amount of coughing during mealtime and its effects on SaO_2 and pulse. A good clearing cough should result in a rise in Sa02 to 95% or greater, facilitating $02/CO_2$ exchange.

   Generally, a poor or inadequate clearing cough will not affect the SaO_2or cause it to drop even further. Excessive coughing during mealtime can increase fatigue and increase the risk of aspiration.

5. COUGHS WITH COLOR CHANGES: Generally indicates aspiration of mucus/food/fluids in significant amounts. If either wheezing or apnea episodes are also present, the overall seriousness of the aspiration episode increases.

6. DECLINE OF SaO_2DURING AND/OR SHORTLY FOLLOWING MEALTIME: Answer yes or no by comparing the average SaO_2during the meal to the average baseline. Many individuals are experiencing "silent aspiration". Decline of SaO_2values into the 80's can indicate aspiration even if coughing is not present. Decline of SaO_2values after mealtime may be indicative of the onset of reflux with aspiration. Readings are observed at 5 minutes and 30 minutes after the meal.

7. OXYGEN SATURATION: SaO_2during eating and drinking is also recorded in terms of the highest, lowest, and most common va[ue. If SaO_2values are below normal limits (95%), they are further evaluated according to what percentage of time is spent below
   90%, 85%, 80%. Many individuals with chronic respiratory diseases (COPD, ARDS) have lower baseline SaO_2 values. These individuals may normally run between 80-85%.

8. Inadequate SaO_2 during mealtimes:
   a) Decreases alertness and general CNS function, which includes movement in the oral structures.
   b) Hinders the efficiency of coordination of respiration and swallowing.

Mealtime Pulse Oxymeter Study

Name: Assessed by:

Date: Time Start: Time End:

Baseline SaO_2: Pulse:

Mealtime Range SaO_2: Pulse:

Length of Mealtime: Coughing Episodes:

Single Coughs: Coughs with Color Change:

Decline of SaO_2 During: Following:

Five Minutes Post Meal SaO_2: Pulse:

Thirty Minutes Post Meal:

SaO_2:

Pulse:

Oxygen Saturation (SaO_2)

Highest: Lowest: Average:

Percent of Time Below:

90% 85% 80%

Interpretation: