Supplemental Material S1. Recipes for radio-opaque food stimuli used in VFSS B.

In the second videofluoroscopic swallow study protocol (VFSS B), radio-opaque food stimuli in IDDSI Levels 5 (Minced and Moist), 6 (Soft and Bite-Sized) and 7 (Regular) were prepared according to the following recipes:

IDDSI Level 5 Minced and Moist Food:

- 1. Create 125 ml of a 30% w/v liquid barium solution using 39 grams of Bracco E-Z-Paque® Powder and 116 grams of bottled water. Mix using a kitchen stand mixer for 2 minutes 30 seconds.
- In a separate container, combine 15.92 of breadcrumbs (Darlington® Pureed BreadMix Product No.30110, Rubicon Foods, Indianapolis, Indiana 46256) and ¹/₂ tablespoon (7.5 ml) of cocoa powder (Fry's* Premium Cocoa).
- 3. Measure 3.7 ml of canola oil (Longo's brand) using a syringe and add to the breadcrumb and cocoa powder mixture.
- 4. Add 60 ml of the 30% w/v liquid barium solution to the breadcrumb, cocoa powder and oil mixture. Stir manually until evenly blended.

IDDSI Level 6 Soft and Bite-sized Food:

- 1. Create 125 ml of a 40% w/v liquid barium solution using 52 grams of Bracco E-Z-Paque® Powder and 113 grams of bottled water. Mix using a kitchen stand mixer for 2 minutes 30 seconds.
- 2. In a separate container, combine 15.92 of breadcrumbs (Darlington® Pureed BreadMix Product No.30110, Rubicon Foods, Indianapolis, Indiana 46256) and ½ tablespoon (7.5 ml) of cocoa powder (Fry's* Premium Cocoa).
- 3. Measure 3.7 ml of canola oil (Longo's brand) using a syringe and add to the breadcrumb and cocoa powder mixture.
- 4. Add 30 ml of the 30% w/v liquid barium solution to the breadcrumb, cocoa powder, and oil mixture. Stir manually until evenly blended.
- 5. Allow the mixture to sit for 10 minutes to allow it to solidify.
- 6. Using gloves, remove ½ teaspoon portions from the mixture and shape into cubes of 1.5 cm³. Serve by teaspoon.

IDDSI Level 7 Regular Food:

This consistency is prepared by smearing a barium paste onto a Carr's® Table Water® Cracker.

To create the barium paste, follow these instructions:

- 1. Create one cup of paste using 108 grams of Bracco E-Z-Paque® Powder and a full 108 g container of Kraft Jell-O chocolate pudding. Stir manually until well blended.
- 2. Smear the chocolate barium paste onto the cracker just prior to use.