Appendix 3

SPEECH AND LANGUAGE THERAPY DEPARTMENT

PROTOCOL FOR VIDEOFLUOROSCOPY STUDY OF SWALLOWING

AIM OF VIDEOFLUOROSCOPY STUDY OF SWALLOWING

Videofluoroscopy (sometimes known as modified barium swallow) is a method of studying the oral, pharyngeal and upper-oesophageal stages of swallowing. It allows the clinician to evaluate both the structure and function of the organs involved in swallowing resulting in the accurate diagnosis of disorders of swallowing. It also enables the examiner to assess the effect of modifications such as food consistency, postural alterations, and swallowing techniques on a patient's ability to swallow safely.

REFERRAL PROCEDURE

1. Referral for videofluoroscopy will normally be instigated by a Speech and Language Therapist (SLT) or Paediatrician
   The therapist should ensure:

   i. Patients should be referred to the SLT prior to the examination for clinical evaluation of swallowing
   ii. The SLT will then discuss the finding of clinical evaluation with the referrer and a decision will be made on whether to proceed with the referral for videofluoroscopy unless there is a clear rationale for carrying out the videofluoroscopy
   iii. There is a clear rationale for carrying out videofluoroscopy
   iv. All referrals and requests are from a Paediatrician or G.P.
   v. That if a change in management may be indicated following the videofluoroscopy that this will be carried out.

PATIENT SELECTION

1. Videofluoroscopy should be considered as a method of assessment when:

   i. A patient is suspected of aspirating (Logemann, 1998).
   ii. A patient's swallowing disorder is suspected to have a pharyngeal component (Logemann, 1998).

2. The SLT/Dysphagia Team should also consider the following factors which may affect patient suitability.

   i. Conscious level/state of alertness.
   ii. Ability to co-operate.
   iii. Medical status. Any complicating medical problems should be discussed prior to the procedure and relevant nursing/medical staff should attend if necessary. Where a patient's medical condition has changed significantly since referral, the appropriateness of the

procedure should be re-considered. Note: If appropriate, a suction machine and personnel trained to use it should be available in the xray department during the assessment.

iv. Level of mobility. Patients requiring a specialist seating system or who require assistance with walking or transfers must have an escort/parent/guardian or professional who has knowledge of their ability and who is able to assist them present during the assessment.

RATIONALE:
Videofluoroscopy is a relatively costly procedure in terms of time and resources. Thus, it is important that patients are selected appropriately according to their suitability to achieve maximum benefit and cost effectiveness.

EVIDENCE:
RCSLT Guidelines on Radiological Imaging.

Logemann, J (1998). Evaluation and treatment of swallowing disorders. Pro-ed Texas,

PRIOR TO THE EXAMINATION

1. The procedures should be explained to the patient and relevant family member/carers. Ideally this should be done by the SLT. The explanation should include:
   i. Reason for performing the videofluoroscopy.
   ii. Emphasis that it is an assessment, not treatment, procedure.
   iii. What will happen in the xray room.
   iv. Plans for follow-up discussion.
   v. Written information is available but should be supplementary to the above verbal explanation. (Reference)
   vi. Possible implications
   vii. Inform patient /carers of equipment/food to be brought to session.
   viii. SLT to ensure that the carer who will feed the child is not pregnant

2. Consent should be obtained and documented in the patient's SLT notes (RCSLT Guidelines).(Appendix 4)

3. The therapist may be intending to try compensatory postures or manoeuvres or texture modification during the videofluoroscopy. If possible, these should have been tried out or taught prior to the procedure.

RATIONALE:
Patient satisfaction when visiting hospital is highest when patient aims correspond closely with clinic aims. (Fitzpatrick & Hopkin (1983) cited in Skipper and Hargie (1994).

All forms of intervention should be discussed with client and carer. Compensatory manoeuvres sometimes require leaning a set of behaviours which can be time consuming (Logemann, 1986). Teaching them prior to the procedure should save time in the xray room and result in a more successful study of their effects on the swallow.

EVIDENCE:
Skipper, M and Hargie, O (1994). SLT's crucial role in dysphagia clinics. Human Communication Aug/Sept 1994.

Logemann, J (1986). Manual for the Videofluoroscopy Study of Swallowing. Taylor & Francis: London

Van der Gaag (Ed) (1996) Communication Quality 2: Professional Standards for Speech and Language Therapists. Royal College of Speech and Language Therapists.

STANDARD PROCEDURE FOR THE VIDEOFLUOROSCOPY

1. SLT's should bring their own DVD-R for recording as they are required to take away after the procedure for reporting / discussion with the patient.

2. Materials should be mixed up as follows:
   i. Thin fluids - Thin fluid is mixed into pot of Easypaque Barium as instructed up to 60% weight/volume.
   ii. Thick fluids - 1 or 2 measures of thickener added to above Barium mix to make up syrup or custard respectively.
   iii. Semi-solid - Barium added to yoghurt or puree.
   iv. Biscuit or bread - Coated in Barium Paste as in iii. (or other suitable solid)

3. Aspiration alone is not necessarily a reason for aborting the procedure. Criteria for aborting the procedure are given below (Palmer et al. 1993):
   i. Evidence of airway obstruction.
   ii. Evidence of laryngospasm
   iii. Evidence of bronchospasm
   iv. Aspiration of acidic material.
   v. Occlusion or impaction of the foodway.
   vi. Total absence of laryngeal protection.
   vii. Paroxysmal coughing.
   viii. Tracheo-oesophogeal fistula with free flow of material into trachea.

There may be a number of other situations which represent relative contraindication to continuing the study. These require individualised clinical judgement to determine whether to continue (Palmer et al. 1993).

4. Appropriate Health and Safety procedures should be complied with.

A lead apron should always be worn when screening.

RATIONALE:
To achieve the claimed 'Gold Standard' that videofluoroscopy has been argued to be we need to standardise the method in which we perform these evaluations of swallowing. This includes the materials used, and terminology and criteria employed to define normal and abnormal swallowing.

EVIDENCE:
Palmer et al (1993). Protocol for the videofluorographic swallowing study. Dysphagia, 8, 209-214.

Logemann (1986) Manual for the Videofluorographic Study of Swallowing (as previously).
O Donaghue, S & Bagnall, A (1999). Videofluoroscopy evaluation in the assessment of swallowing disorders in paediatric and adult populations. Folia Phoniatrica et Logopaedica, 51, 158-171.

REPORTING ON THE VIDEOFLUOROSCOPY

1. A written report should be completed for all patients (RCSLT Guidelines).

    i. The SLT will take responsibility for this but ideally it will be completed in conjunction with the radiologist or patients' physician.
    ii. The written report will follow a standard format to include information on the speed of swallow, motility problems, cause and approximate amount of aspiration and recommendations for future management (see Appendix 3).
    iii. The written report will be copied to the patient's Paediatrician and to the GP / other relevant agencies as deemed appropriate by the SLT.

RATIONALE:
The written report should give a clear account of the procedure and the results. Establishing responsibility and a set format should ensure each patient receives equal treatment and subsequent reports for patients can be compared more satisfactorily.

EVIDENCE:
Logemann, J (1986). Manual for the Videofluoroscopic Study of Swallowing. Taylor & Francis: London.

RCSLT Guidelines for Radiological Imaging.

Skipper M & Hargie, O (1994). As previously mentioned.

FOLLOWING THE EXAMINATION

1. The SLT should make recommendations for:

    i. Appropriate methods of adequate nutritional intake.
    ii. Therapy recommendations and follow up plans.

2. The SLT should discuss the findings of the videofluoroscopy with patients/ carers as appropriate. Showing the recording to the patient is optional but may aid explanation of the outcome to older children and parents/carers.

RATIONALE:
The videofluoroscopy should be diagnostic. It should allow a decision to be made about safe oral intake but should also allow for planning of therapy strategies. Results of investigations should be discussed with the client and carer.

EVIDENCE:
Logemann, J (1998). Evaluation and Treatment of Swallowing Disorders.

Van der Gaag and Reid (Eds) (1998). Clinical Guidelines By Consensus for Speech and Language Therapists. RCSLT.