

## BACKGROUND

**Videofluoroscopic evaluation of swallowing (VF)** is a modification of the standard barium swallow X-ray examination. This method of assessment is ideal for revealing both the anatomy and physiology of swallowing and for identifying pathophysiology in people with dysphagia. Oropharyngeal swallowing physiology and anatomy is evaluated as the patient eats and drinks a radiopaque substance. The radiopaque substance may be mixed with food or drink of varying consistencies. The moving images of the oropharyngeal swallow are recorded to allow analysis of swallow physiology and function. This information informs safe dietary recommendations as well as confirming the effectiveness of selected approaches in dysphagia therapy and management. VF is used to assess swallowing in all patient populations including neurology, stroke and head and neck cancer. (1)

At Aberdeen Royal Infirmary the examination has traditionally been performed by a Speech and Language Therapist (SLT) and a Radiology Registrar. Over recent years there has been a steady increase in demand for videofluoroscopy to inform dysphagia patient management earlier during a patient's admission and prior to discharge. Delay in securing this procedure can result in an increased length of stay.



# Videofluoroscopy

## Collaborative working with improved outcomes

Improved patient experience and outcomes.

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### 1. AIMS

- Increase patient access to videofluoroscopy by creating a dedicated practitioner-led clinic (2).
- Train existing Advanced Practitioner Radiographers to provide the Radiology input for the VF procedure.
- Improve patients' experience and outcomes with dedicated facility and earlier diagnostic results to inform management plans.
- Reduce length of hospital stay for patients if possible.
- Establish collaborative working between the two Allied Health Professional Groups (2) with skill mix development, role extension and good networking between Departments.
- Teaching of videofluoroscopy procedure with improved multidisciplinary communication skills for all staff groups.
- Improved efficiency of the Radiology Department with transfer of Radiologist to role specific tasks.
- Establish joint reporting system.

### 2. METHODS

- Identify a dedicated VF list to suit availability of SLTs, Advanced Practitioner Radiographers, Nurses and Consultant Radiologist.
- Survey of current practice by questionnaire to all health care professionals involved in the examination (SLTs, Radiologists, Radiographers, Nurses and Health Care Support Workers) to identify areas for improvement.
- Establish a standard operating procedure with clearly defined MDT roles.
- Training of Advanced Practitioner Radiographers on VF examinations by Consultant Radiologist.
- Training of Advanced Practitioner Radiographers by SLT regarding dysphagia awareness, swallow screen training and awareness of the International Dysphagia Diet Standardisation Initiative framework (IDDSI) (4).
- SLT training in radiation protection including IRMER and Local Rules.
- Regular meetings with all staff involved to monitor progress and identify changes required.

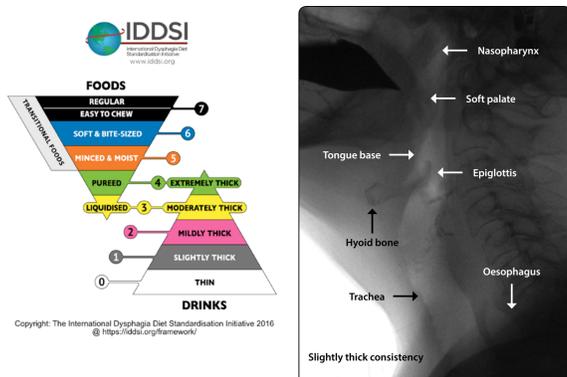
### 3. RESULTS

- Increased capacity: 112 procedures in 2017-18 compared to previous average of 96.
- Reduced average wait for procedure by 50% from six days to three days which reduced hospital stay for inpatients. (Table 1)

Table 1 : Average wait (Days) for VF procedure



- Collaborative working with a variety of staff groups with increased knowledge of MDT roles.
- Skill mix and staff development with good interdisciplinary communication resulting in improved quality of patient care.
- Clear and more standardised annotation for images using IDDSI framework.
- Reduction in waiting times for VF resulting in earlier therapeutic intervention.
- Radiologist available for other duties.
- Improved training for all staff.



Reduction in waiting times for VF resulting in earlier therapeutic interventions.

### 4. CONCLUSION

Introduction of a Practitioner-led videofluoroscopy clinic has resulted in collaborative working between a variety of staff groups. The roles of the SLT and Advanced Practitioner Radiographer have been enhanced. The data presented confirms an increase in capacity for VF procedures with a reduction in waiting times and probable length of hospital admission. The introduction of this service has encouraged collaborative working, staff development and improved multidisciplinary communication between Departments. Developments are ongoing including continuing staff training and refining joint reporting procedures.

#### REFERENCES

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4. International Dysphagia Diet Standardisation Initiative (IDDSI), 2016 <https://iddsi.org/framework/>.

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