	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO: The Chief Executive, North Cumbria University Hospitals NHS Trust ('The Trust')** **The Secretary of State for Health, London.**
1	**CORONER** I am Mr David Llewelyn Roberts Senior Coroner for **County of Cumbria**
2	**CORONER'S LEGAL POWERS** I make this report under paragraph 7, Schedule 5, of the Coroners and Justice Act 2009 and regulations 28 and 29 of the Coroners (Investigations) Regulations 2013. http://www.legislation.gov.uk/ukpga/2009/25/schedule/5/paragraph/7 http://www.legislation.gov.uk/uksi/2013/1629/part/7/made
3	**INVESTIGATION and INQUEST** On 15/12/2016 I commenced an investigation into the death of Sharon Rose Grierson. The investigation concluded at the end of the inquest 23rd January 2018. The conclusion of the inquest was On 11th November 2016 the deceased underwent elective surgery at the Cumberland Infirmary Carlisle to remove a polyp from her vocal cords under general anaesthetic. The procedure was uneventful. It was decided to extubate her whilst still under the effect of anaesthetic, in the process of which she went into laryngospam. Muscle relaxant was administered and she was re-intubated, it was believed, via the trachea. Shortly afterwards she had a cardiac arrest. Assistance had already arrived. Capnography readings showed the absence of exhaled carbon dioxide. In the process of introducing an oro-gastric tube the endotracheal tube, which was found to be in the oesophagus was removed and replaced. The capnograph continued to show abnormal readings, notwithstanding effective and continuous cardio-pulmonary resuscitation. The position of the tube was checked by bronchoscope and was, again, found to be in the oesophagus. It was re-sited. Clinicians had not appreciated that there had, twice, been oesophageal intubation despite the capnography readings. She died on 14th November 2016 as a consequence. **Cause of death:** 1a) Global Ischaemic/Hypoxic Brain Injury b) Unrecognised Oesophageal Intubation following Extubation after operation to remove Benign Vocal Cord Polyp. **Conclusion:** Died following surgery as a result of being deprived of oxygen due to endotracheal tubes being incorrectly placed on two consecutive occasions.
4	**CIRCUMSTANCES OF THE DEATH** A 44 year old female who attended CIC for short routine elective laryngoscopy for a small lesion on her larynx. During the process the patient needed to be intubated. After the procedure she went into laryngospasm and subsequently endotrachael tubes were inserted into her oesophagus twice instead of her trachea.

	This led to hypoxic brain injury. During the course of the incident which lasted about one hour the deceased was attended by four consultant anaesthetists, two other doctors and trained theatre staff. By the time the error was rectified it was too late. This death could have been avoided.
5	**CORONER'S CONCERNS** During the course of the inquest the evidence revealed matters giving rise to concern. In my opinion there is a risk that future deaths will occur unless action is taken. In the circumstances it is my statutory duty to report to you. The **MATTERS OF CONCERN** are as follows. – (1) There was a lack of appreciation of what the capnography was indicating and some lack of understanding of the trace one might expect to see during CPR. (2)There was a lack of co-ordination and situational awareness. (3)It became apparent that senior staff often have little experience of crisis situations and there is a danger that they become 'de-skilled' to some extent as a result.

6	**ACTION SHOULD BE TAKEN** In my opinion action should be taken to prevent future deaths and I believe you have the power to take such action. **The Trust;** To ensure that all relevant staff are provided with training in 'simulation suites' or other facilities to drill, refresh and enhance their skills to enable them to deal clearly and logically in crisis situations. This will inevitably mean 'protected' time away from clinical duties with regular refresher courses. **Nationally:** It appears likely that the problems which contributed to this death may well be replicated elsewhere in the country. There are also likely to be centres of excellence which could provide models, mentoring and support to other Trusts so that good practice is disseminated.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by 26th March 2018. I, the coroner, may extend the period. Your response must contain details of action taken or proposed to be taken, setting out the timetable for action. Otherwise you must explain why no action is proposed.
8	**COPIES and PUBLICATION** I have sent a copy of my report to the Chief Coroner and to the following Interested Persons:- [redacted]-daughter [redacted]-sister [redacted]-mother [redacted] [redacted] I have also sent it to Dr J Brown, Dr B Norman and the press who may find it useful or of interest. I am also under a duty to send the Chief Coroner a copy of your response. The Chief Coroner may publish either or both in a complete or redacted or summary form. He may send a copy of this report to any person who he believes may find it useful or of interest. You may make representations to me, the coroner, at the time of your response, about the release or the publication of your response by the Chief Coroner.
9	25/01/2018 Mr David Llewelyn Roberts Senior Coroner **County of Cumbria**