REPORT TO PREVENT FUTURE DEATHS

	REGULATION 28 REPORT TO PREVENT FUTURE DEATHS **THIS REPORT IS BEING SENT TO:** **1. [redacted] President and Executive Committee Chair, Intensive Care Society of England and Wales**
1	**CORONER** I am Christopher John Woolley, Assistant Coroner, for the Coroner area of Cardiff and the Vale of Glamorgan
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.
3	**INVESTIGATION and INQUEST** On 8th July 2015 I commenced an investigation into the death of Dilys Jenkins aged 81. The investigation concluded at the end of the inquest on 1st October 2015. The medical cause of death was: 1A Congestive Cardiac failure 1B Respiratory failure 1C Dislodged tracheostomy and 2. Ischaemic and valvular heart disease (operated), and the conclusion of the inquest was a narrative conclusion as follows: "Dilys Pauline Jenkins died from the recognised complications of necessary medical intervention.
4	**CIRCUMSTANCES OF THE DEATH** Dilys Jenkins was diagnosed with ischaemic heart disease and was referred for surgery in November 2014. Cardiac surgery took place on 24th June 2015 and was successful. Post-surgery she had raised CO2 levels. She failed a trial of extubation and it was considered that a tracheostomy required. This took place on 3rd July 2015. It proceeded uneventfully although the operation was complicated by her high BMI (40.86) and that anatomy of the neck. On 4th July at about 10.50 am she was seen to be clutching at her chest and the nurse raised the alarm. She had dislodged the tracheostomy. Despite the best efforts of the medical staff who succeeded in regaining control of the airway Dilys Jenkins was not oxygenated for ten minutes. In this time she suffered a respiratory and then a cardiac arrest. She died at 6.50 pm on 4th July 2015.
5	**CORONER'S CONCERN** During the course of the inquest the evidence revealed a matter 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 **MATTER OF CONCERN** is as follows. – (1) The Coroner called [redacted] (Consultant Cardiothoracic surgeon) and the Consultant Anaesthetist [redacted] The Coroner was satisfied that Dilys Jenkins had had the best possible care while in the University of Wales and that the dislodgement of the tracheostomy was a recognised complication of necessary medical intervention. Both [redacted] and [redacted] were of the view that the tracheostomy manufacturers

	had not kept pace with the developments in the population towards larger size. The tracheostomy was a size 8 Portex tracheostomy tube which I heard had a length of 75.9 mm. [redacted] gave evidence that nowadays this length can be inappropriate and that a length of 85.9 mm may be more desirable. They both referred to learned papers which I enclose with this Regulation 28 Notice. I have had regard to Chapter 15 in particular of the paper "Major complications of airway management in the UK" (March 2011) and to the article in Anaesthesia 2008, 63, pages 302 – 306 "An investigation into the length of standard tracheostomy tubes in critical care patients". This recommended that the length of the tube be increased by 1 cm and the tube redesigned to an angle of 110 – 120 degrees to allow optimal tracheal placement. It concluded that the tube will not lie comfortably if its stoma or intra-tracheal length is too short or too long. While the cause of the dislodgment in the case of Dilys Jenkins is unknown the Coroner is concerned that incorrect length may have been a factor. The Coroner is concerned that the tracheostomy industry should be encouraged to change the length of the tracheostomy tube to match the increasing size of the population, and believes that the Intensive Care Society is in the best position to influence industry in this regard.
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.
7	**YOUR RESPONSE** You are under a duty to respond to this report within 56 days of the date of this report, namely by 17th November 2015. 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 1. [redacted] (for the family) 2. [redacted] and [redacted] University Hospital of Wales. I have also sent it to [redacted], Deputy CMO Welsh Government. 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	**7th October 2015** **C J Woolley, Assistant Coroner**