‘Just a routine operation’

Date of incident: March 2005

Incident overview

Elaine Bromiley was in good health but had been experiencing sinus problems. Sinus surgery was recommended by a consultant. Martin Bromiley left his wife at the hospital on the day of the operation at 08:30am. He received a phone call from the EMT consultant at 11:00am because when Elaine had been anaesthetised her airway had collapsed and her oxygen levels dropped. The operation had been abandoned and Elaine was left to wake up naturally, but at this time point she had not done so.

Elaine was moved to intensive care and Martin was informed that she had been without oxygen for a significant period and brain damage was likely. After a brain scan had been conducted it was concluded that nothing more could be done and Martin Bromiley made the decision to turn off his wife’s life support. Elaine Bromiley died 13 days after the attempted routine operation.

Why did this routine operation go wrong?

Elaine was being cared for by an experienced anaesthetist and his assistant. The thorough pre-operation procedures had been conducted and they had decided to use a laryngeal mask (which allows consultants to pass oxygen and anaesthetic gasses in to the airway during the operation). At 08:35am Elaine was anaesthetised. The first laryngeal mask did not fit so they tried another. More drugs were administered to release any suspected tension in muscles in the jaw. This was the first sign that things were beginning to go wrong.

After 2 minutes Elaine’s blood oxygenation level had dropped to 75% and was falling further. Elaine had also turned visibly blue. After 4 minutes her oxygenation levels had dropped to 40% or lower. After 6-8 minutes the anaesthetist attempt to incubate Elaine. Her oxygenation levels were still at 40% or below and her heart rate began to fall. The EMT surgeon performing the surgery and an anaesthetist in a neighbouring room came to assist in the incubation of Elaine after hearing the commotion. Four nurses also arrived to assist, responding to the call of the anaesthetist. The surgeon and anaesthetists attempted to continue to incubate Elaine. After 10 minutes the situation should have been classed as a ‘cannot incubate/cannot ventilate’ situation. This is a recognised emergency and there are procedures/guidelines in place for these situations. At this point Elaine’s oxygenation levels had been at 40% or below for about 6 minutes.

The anaesthetist had 16 years’ experience, the EMT surgeon 13 years’ experience and the anaesthetist from the adjoining room had skills in areas such as difficult airways. Three of the four nurses were experienced. However, the three consultants persisted with trying to incubate Elaine for 15 minutes excluding any other methods. After this 15 minutes (25 minutes in to the procedure) Elaine’s oxygenation levels had risen to 90% but had been at 40% or lower for about 20 minutes. At this point the consultants decided to abandon the surgery but Elaine’s airway still wasn’t secure and her oxygenation level fell below 90% for a further 10 minutes. By this time (35 minutes in to the procedure) the decision was made to allow her to wake up naturally in the recovery room but she never did.

The nurses arrived to assist Elaine Bromiley 6-8 minutes in to her procedure. They (unlike the consultants) were aware of the seriousness of the situation. One nurse at this time point went to get a tracheostomy set. The nurse bought the set in to the room and announced to the consultants that a tracheotomy set was in the room and available for their use. The consultants did not respond.

Another nurse that entered the room immediately noticed the blue colour of Elaine Bromiley. She left the room to phone intensive care to ensure that there was a bed available. The nurse told the consultants that there was a bed available in intensive care and that they looked at her as if to suggest that she had over reacted. The nurse then cancelled the reserved bed.

Two out of the four nurses said that they knew exactly what should have happened but did not know how to approach the subject.

Events following the incident

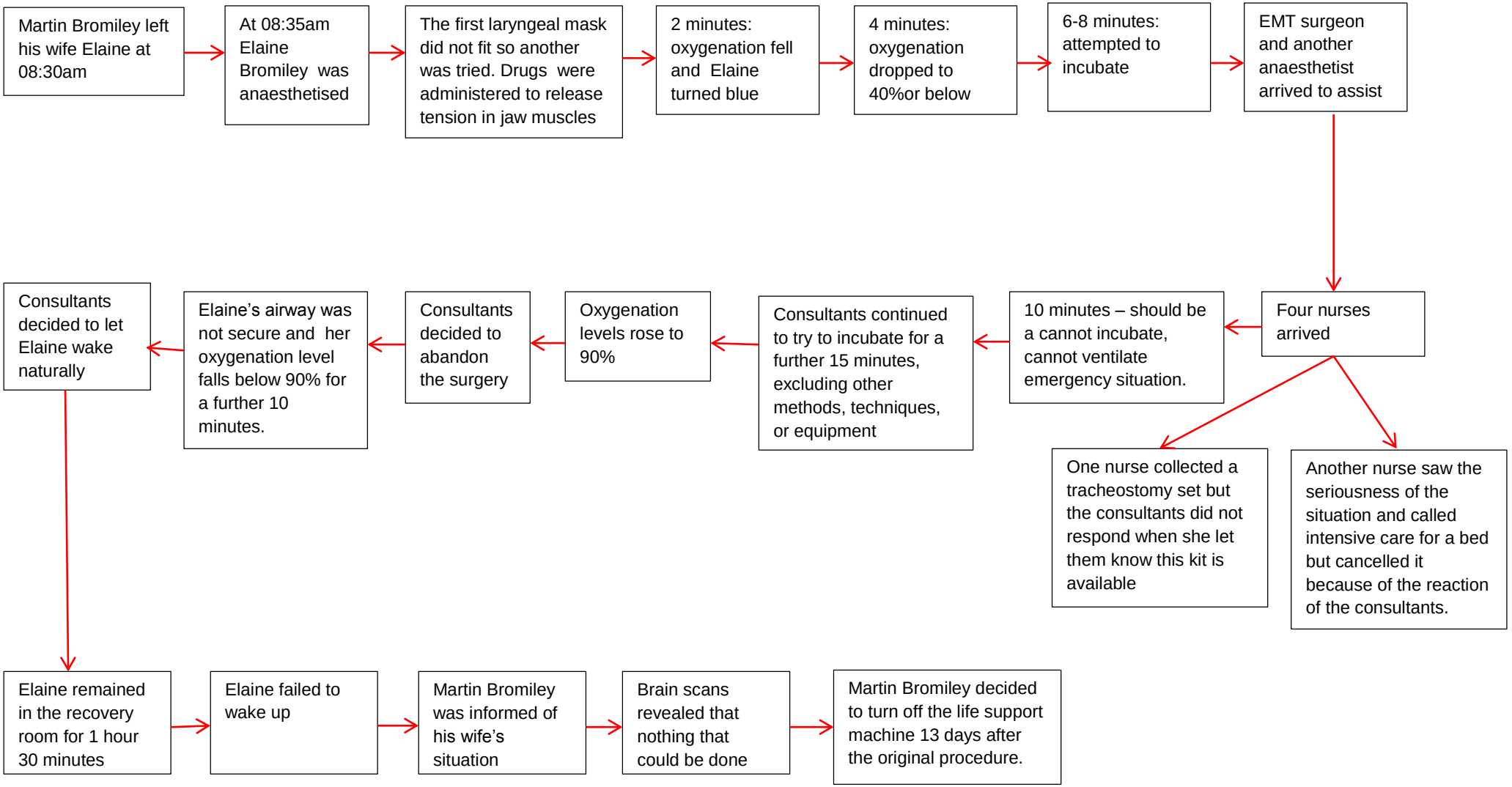
All the staff involved in this incident returned to work. Martin Bromiley hoped that they would spread their personal lessons to colleagues and become better clinicians as a result of this incident.

Martin Bromiley established a Human Factors group to increase and improve the awareness of human factors in the NHS.

Information source

The information included in this incident was sourced from the NHS website video ‘just a routine operation’.

What happened?



What NTS contributed to the accident?

STAGE		SUB-SKILL	WHO DISPLAYED THE NTS	NOTES
OBSERVE	1.1	Attention to detail	All	The consultants failed to attend to Elaine's blue colour, the time Elaine had been at very low oxygenation levels, and Elaine's vital signs but the nurses did.
	1.2	Overall awareness	All	The consultants did not seem aware of the seriousness of Elaine's condition. However, the nurses did understand the seriousness of the situation.
	1.3	Maintain concentration		
	2.1	Systematic & thorough approach	Consultants	Observed the tracheostomy set in the theatre but did not take a systematic approach to use the available equipment.
	2.2	Checking		Cannot determine if the consultants checked the amount of time Elaine had low oxygenation levels.
	3.1	Listening		Cannot determine if the consultants failure to respond to the nurse when she offered them a tracheostomy set was because they were not listening.
UNDERSTAND (KNOWLEDGE)	1.2	Overall awareness	All	The consultants did not seem aware of the seriousness of Elaine's condition. However, the nurses did understand the seriousness of the situation.
	1.4	Retain information	Consultants	Were not able to recall their training of cannot incubate, cannot ventilate situations.
	1.5	Anticipation of risk	All	The consultants did not seem aware of the seriousness of Elaine's condition. However, the nurses did understand the seriousness of the situation.
	4.1	Effective decisions		
	4.2	Timely decisions		
	4.3	Diagnosing & solving problems		
DECIDE	4.1	Effective decisions	All	The consultants decided to continue incubating Elaine and ignoring other methods, techniques and equipment. The nurses did make effective decisions; they fetched a tracheostomy set and called intensive care to ensure they had a bed for Elaine.
	4.2	Timely decisions	All	The consultants did not make a timely decision to continue to incubate. The nurses' actions were made in time to prevent the death of Elaine Bromiley.

	4.3	Diagnosing and solving problems	All	The consultants decided to continue incubating Elaine and ignoring other methods, techniques and equipment. The nurses did make effective decisions; they fetched a tracheostomy set and called intensive care to ensure they had a bed for Elaine.
	2.3	Positive attitude to rules & procedures	Consultants	Failed to carry out the correct procedure for a cannot incubate, cannot ventilate situation.
	3.4	Sharing information	All	The consultants failed to respond to the nurse when she offered them a tracheostomy set. The nurses made the consultants aware there was a tracheostomy set available and a bed in intensive care.
	5.1	Considering others' needs		
	5.2	Supporting others		
ACT	4.1	Effective decisions	All	It was an ineffective decision by the consultants to continue to attempt to incubate. It was an effective decision by the nurses to fetch a tracheostomy set and call intensive care for a bed.
	4.2	Timely decisions	All	The consultants did not make a timely decision to continue to incubate. The nurses actions were made in time to prevent the death of Elaine Bromiley.
	4.3	Diagnosing & solving problems	All	The consultants decided to continue incubating Elaine and ignoring other methods, techniques and equipment. The nurses did make effective decisions, they fetched a tracheostomy set and called intensive care to ensure they had a bed for Elaine.
	2.1	Systematic & thorough approach	Consultants	Only used one approach, ignoring other methods, techniques amd equipment.
	2.2	Checking		Cannot determine if the consultants checked the amount of time Elaine had, had low oxygenation levels.
	3	Communication (all)	All	The nurses failed to be assertive – they had completed the right actions but failed to put their point across to the consultants. The consultants did not share information as communication between them ceased. There are questions about whether the consultants listened to the nurses.
	5.2	Supporting others		

	5.3	Treating others with respect	Consultants	The way the consultant looked at the nurse like she was over reacting shows a lack of respect of her knowledge and perception of the seriousness of the situation.
	5.4	Dealing with conflict / aggressive behaviour		
ALL STAGES	6	Workload management	All	6.1 - The consultants showed selective attention (tunnel vision) in attending to trying to incubate Elaine when there were other methods/procedures in the theatre that may have been more effective (they were not multi-tasking effectively). The consultants prioritised incubation (that was not working) over other methods/technique/equipment. The nurses prioritised Elaine Bromiley when they responded to the call of help from the anaesthetist.
	7	Self-management		

Description of the incident

The nurses

Situational awareness					Conscientiousness			Communication				Decision making & action			Cooperation and working with others				Workload management			Self-management			
1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	5.4	6.1	6.2	6.3	7.1	7.2	7.3	7.4

The consultants

Situational awareness					Conscientiousness			Communication				Decision making & action			Cooperation and working with others				Workload management			Self-management			
1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	5.4	6.1	6.2	6.3	7.1	7.2	7.3	7.4