High Airway Pressure

Name:	Frances Quinn	**Observation at start**		**CRT:**	2s
D.O.B.	07/12 (66Y)	**RR:**	Vent	**Temp:**	36.5
Address:	(Insert local address)	**Chest:**	Acc to cause	**BM:**	6.2
		Sats:	93%	**Weight:**	80Kg
Hospital ID:	446 278 3345	**Heart Rate:**	75	**Allergy**	NKDA
Ward:	General surgery	**BP:**	119/62		

Background to scenario	Specific set up
A 66 year old patient is undergoing a laparoscopic cholecystectomy. He is under GA following an uneventful induction. The abdomen has just been insufflated, the high pressure alarm has just gone off A number of causes could be simulated, pick one for your session Or the patient has just been extubated - laryngospasm	Mannequin – on theatre table Intubated, ventilated Cannulated with IV fluids running Draped for surgery, surgeons just insufflated abdomen Surgical trays and stacks Anaesthetic chart, used drugs Capnogram traces corresponding to causes
Required embedded faculty/actors	**Required participants**
ODP Surgical team/theatre team	Anaesthetist ODP/Surgical and theatre teams can also be participants in MDT sim

Past Medical History

HTN, otherwise fit and active
Recent admission for cholecystitis, which has now settled and returned for cholecystectomy
No airway concerns, No reflux, fasted

Drugs Home	Drugs Hospital
Amlodipine	Anaesthetic induction drugs – fentanyl, propofol, rocuronium (20 mins ago) Antibiotics (local protocol) 5 minutes ago

Brief to participants

You have just anaesthetised F Quinn for a laparoscopic cholecystectomy.
Induction of GA was uneventful (with fentanyl 100mcg, propofol 200mg, rocuronium 40mg – 20 minutes ago)
Size 8.0 ETT is in situ, grade IIa intubation
The surgery has just begun, please start documenting
Surgeons ask theatre staff to switch on gas, ask anaesthetist for reverse Trendelenburg position

OR – you have just extubated the same patient, and the surgeon has commenced the sign out

Scenario Direction

If Intra-op incident

A	Details to give participants High airway pressure alarms sound, pressure feels high on hand ventilation 1. Coughing/inadequate paralysis (accompanying tachycardia and hypertension) 2. Kinked tube (under drapes/at teeth –> not seen unless specifically checked). Capnogram shape 3. Endobronchial intubation -> absent breath sounds on left on auscultation, Discussion on how to pull ETT back 4. Blocked ETT -> sputum plug if suction catheter used, prompt discussion on further investigation/bronchoscopy and how to conduct, equipment needed 5. Blocked filter -> when examined specifically, plastic end of cannula blocking filter 6. Bronchospasm -> capnogram shape, wheezing on auscultation, progressing to gas trapping and cardiovascular instability
B	Sats gradually dip if cause not isolated and treated
C	HR 75 BP 119/62 (apart from scenario 1)
DE	Anaesthetised (if volatile used MAC 1.2)
Rx	Declare incident, ask surgeons to pause surgery Call for help Increase gas flow, give 100% O2 and check FiO2 Visual inspection of system – both patient and machine end Switch to hand ventilation, isolate patient using ambu-bag ABCDE assessment, systematic approach, using QRH handbook

If post-op incident

A	7. Laryngospasm - Patient has just been extubated after the surgery Stridulous noises
B	Sats keep dropping until treated
C	HR and BP drop if untreated
DE	Surgeons carrying out sign-out proforma until told otherwise
Rx	Declare critical incident, gain team focus on patient Call for help Follow simple manoeuvres, increase FiO2 to 100% Re-anaesthetise and re-paralyse Consideration of cause Discussion on strategy to extubate after this incident

Guidelines

Association of Anaesthetists QRH Handbook

Guidance for Patient Role

Opening lines/questions/cues/key responses Anaesthetised	Relevant HPC / PMH
Concerns	Actions (Laryngospasm scenario – stridor)
Guidance for ODP role	**Guidance for surgical/theatre team roles**
Opening lines/questions/cues/responses/Concerns	Not aware of anaesthetic issue until incident is declared After this – support in their capacity (Ex by calling for help – who do you call?)
Actions Support and anticipate needs based on level of participants	
Guidance for Role e.g. ITU/Anaesthetic Senior	**Guidance for other role**
Expectations/actions Support in person/local/distant depending on level of participant	

Session Objectives	
Clinical	Managing a patient with high airway pressure during anaesthesia Managing laryngospasm after extubation
Non-technical skills	
Teamworking	Coordinating team activity in critical incident, exchanging information (declaration of critical incident, communicating with ODP or any supporting anaesthetists)
Task management	Planning and preparing for next steps, following guidelines, identifying and utilising resources (surgical team to call for help and perform tasks)
Situational awareness	Gathering information/assessing patient in systematic way, recognising cause for deterioration, anticipating next steps
Decision making	Balancing options and treating, continuous re-evaluation