

# Camera Holding Skills and the Role of the ASP

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# In The Beginning

An anatomical diagram of the biliary system. It shows the liver, gallbladder, and the common bile duct. A yellow gallstone is shown lodged in the common bile duct. The diagram is labeled with various anatomical terms, though they are faint. At the bottom left, there is a caption: "BILIARY SYSTEM with GALLSTONES IN COMMON SITES".

- Early endoscopic surgery performed without cameras.
- Surgeon used his eyes to visualize
- Development of instrumentation
- Necessity for assistant to visualise to interact appropriately.
- Explosion of technology and technology

# Role of the Theatre Person

- “Today's operating theatre nurse is a highly trained, skilled person whose role is complex and difficult to define. With the advent of minimal access surgery it has to combine the technical knowledge and expertise associated with the sophisticated instruments, techniques and drugs in current use, and the basic nursing skills acquired through training and experience that are vital to the care of the patient.”
- *CARRINGTON A.C. (1991). Theatre Nursing as a Profession. Brit Jour Th Nurs. 1: 6-7.*

# Surgical Skills

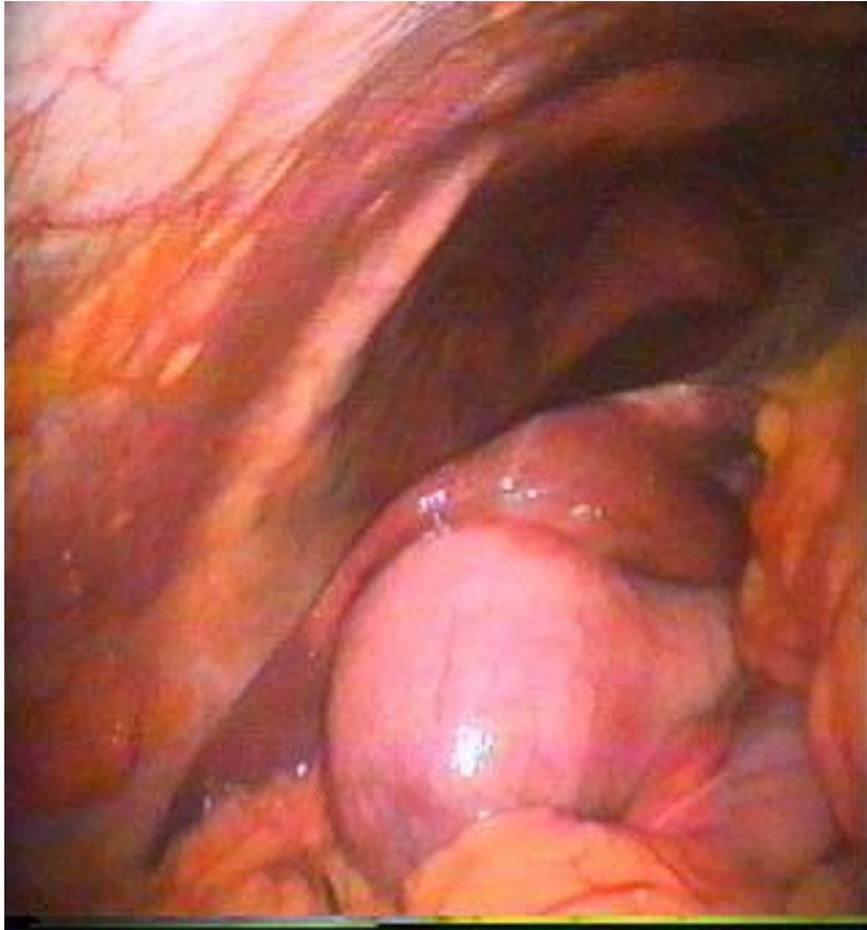
- Learning curve.
- Loss of depth of perception
- Loss 3D view
- Elongated instruments and loss of tactile sensation
- Degree of tension



# Placement of Instruments

- Under direct visualization only
- Beware of tissue under traction out of view of laparoscope.
- Telescopes: 0°, 30° and many others.
- 5mm, 10mm and there are now 3/2mm available, although fragile.

# Orientation



Endoscopic view of the gallbladder with gallstones in common sites

# Understand Your Equipment



BILE DUCT SYSTEM with GALLSTONES IN COMMON SITES

# Equipment Necessary for MAS

- Camera
- Light Source
- Insufflator
- TV Monitor
- Telescopes
- Light Guide Cable

*Apart from the insufflator the system will work better if all the components are from the same company as one piece talks to another*



# CAMERA

- These can be single chip or 3 chip.
- CHIP: this is also called a charged coupled device in short, CCD.
- These are flat silicone wafers with a matrix, a grid of minute image sensors called pixels.
- White balance and sometimes black balance
- Sleeve it don't soak it!!!

# Light Source

- Halogen or Xenon, cold light but beware can still burn holes in drapes esp. disposable and burn patient's skin if left on the abdomen.
- Brightest to darkest measured in units of decibels.
- Automatic illumination, does it talk to the camera and are the necessary leads plugged in.
- Lamp life meter, look at it. Is it nearly out? EBME keep the spares and they change it.
- White balance by making sure white is correct then all the colours through the spectrum are correct.

# Telescopes

An anatomical diagram of the biliary system, showing the gallbladder, common bile duct, and common hepatic duct. A laparoscope is shown inserted into the abdominal cavity, with its lens system positioned to view the gallbladder. The diagram is labeled with various anatomical terms, though they are partially obscured by the text.

- Come in varying sizes, laparoscopes usually 5mm or 10mm.
- Diagnostic 3mm scope available but not in general use in this hospital.
- Made up of a rod and lens system.
- Bundles of fibres, incoherent carry light and coherent carry image.
- Wide range of angles available 0 and 30 degree are fairly standard.
- All laparoscopes are autoclavable and can go thru steris, no ultrasonic bath.

# Light guide Cables

- Different diameters
- Fibre light cable
- Buy auroclavable
- Don't bend to acutely as will break fibres.
- Check when you plug them in are all the fibres are okay.
- Condensers

# Electrosurgery

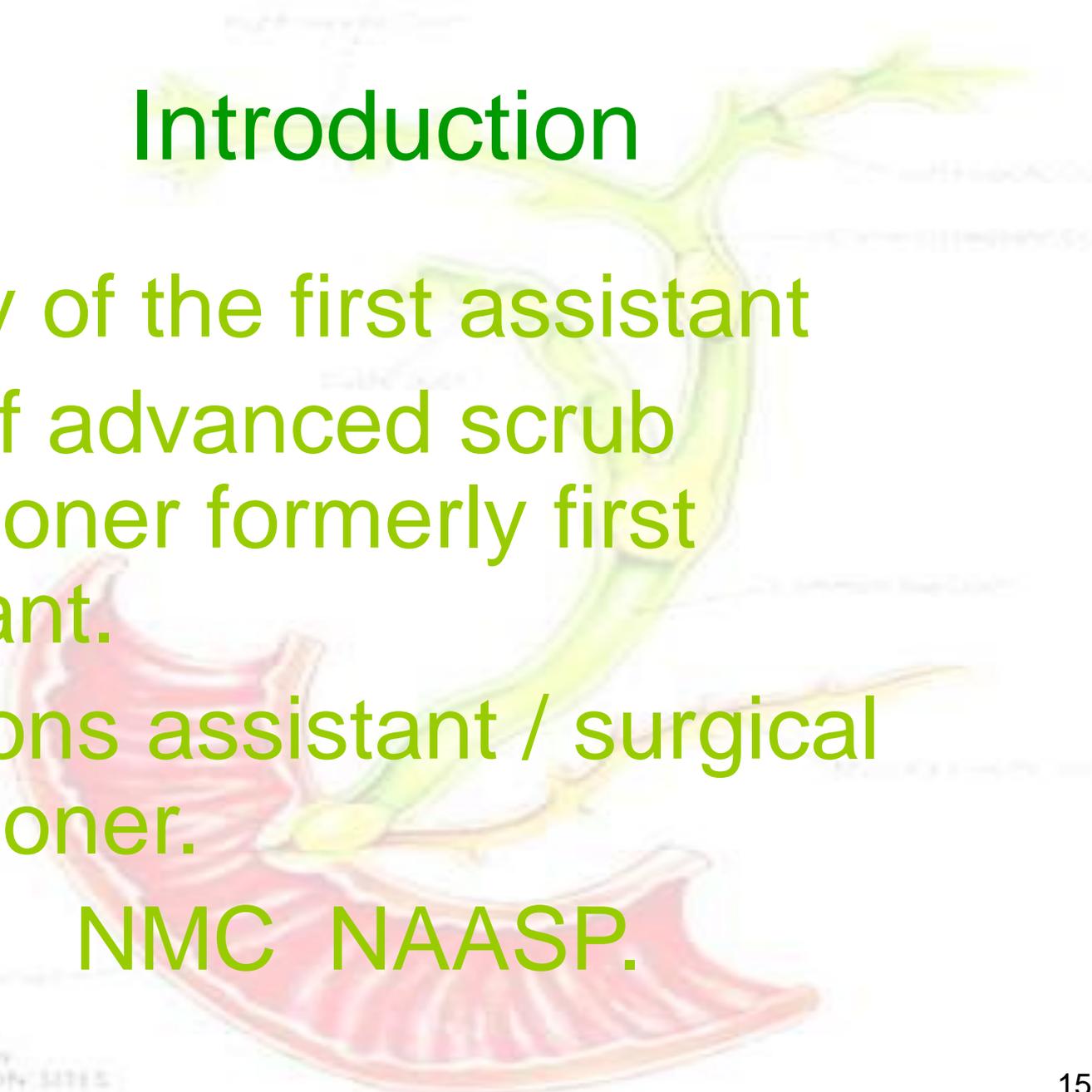
You should be aware of the following potential situations:

- **Insulation failure** of the active electrode.
- **Direct coupling of current** to other instrumentation by direct contact.
- **Capacitance** which may be created by two electrical conductors separated by an insulator

# Appropriate safety standards can be maintained if surgeons adhere to the following guidelines

- Use a low voltage waveform (cut instead of coagulation) whenever possible.
- Use the lowest possible power setting that will deliver the desired tissue effect.
- Ensure that insulation on reusable and disposable instrumentation is intact and uncompromised before activating.
- Do not activate the electrode in air space (open circuit activation). Activate the generator only when the active electrode is in direct contact with target tissue.
- Do not activate electrode when in contact with other instruments.
- Use bipolar electro surgery were appropriate, good for coag. But not for cutting tissue.

# Introduction



- History of the first assistant
- Role of advanced scrub practitioner formerly first assistant.
- Surgeons assistant / surgical practitioner.
- NATN NMC NAASP.

# How the Role Has Evolved in UK

- NHS Plan 2000.
- More power and information for patients
- More hospitals and beds
- More doctors and nurses
- Shorter waiting times for serviced
- Cleaner wards and better food and facilities in hospitals
- Improved care for older patients
- Tougher standards for for NHS organisations and rewards for best.

# Changing Workforce Programme

- **Aim of the programme**
- Reducing Waits across all sectors
- Reducing junior doctors hours
- Recruiting to hard to fill posts
- Improving access to services
- Improving working lives of staff
- **Benefits**
- Improved patient care
- Less faces
- Maximised staff potential
- Increased job satisfaction
- Attractive jobs
- Reduced vacancies and staff turnover.

# Areas for Consideration

- Legal issues
- Bolam test
- Accountability
- Primary liability : individual liability
- Negligence
- GMC



# GMC

- “you may delegate medical care to nurses and other health care staff who are not registered medical practitioners if you believe it is best for the patient. But you must be sure that the person to whom you delegate is competent to undertake the tasks. You will still be responsible for managing the patient’s care. You must not enable anyone who is not registered with the GMC to carry out tasks that require the knowledge and skills of a doctor”
- *Assistants in surgical practice Sept. 1999.*

# Within the Workplace

- Vicarious liability
- Working within bounds job description
- Dual rolling





GALLSTONES IN COMMON SITES

# Future.

- Robotics
- da Vinci: \$1.2 million, FDA cleared for advanced surgical techniques.
- ZEUS – assists only.
- AESOP-
- Telepresence surgery



Robotic Revolution - Device works wonder in prostate cancer surgery,  
New York Daily News [read more](#)

# Future.

- Training.
- Haptic technology, science of touch: allows computers to interact with virtual worlds by feel.
- MIST-VR; eval by Kothari et al.
- Kothari et al (2002). Training in lap Suturing Skills using a Computer Based System. Jour laproendosc. & Adv Surg Tech. 12:3: 167-173.



# Questions

Thank you for your time

