A) Endoscopy Patient Trolley
   - The head end position should be checked and aligned to head end.
   - The head low mechanism should be checked to make sure the head can be lowered quickly.

B) Suction:
   - There should be two suctions ready
     One suction is as usual for the endoscope
     The other suction is for oral suction during the procedure. The suction catheter should be ready, opened but still in its cover. The suction tube should be looped near the head end of the Endoscopy trolley so the Assistant holding the mouth guard can use it SOS.

C) Pulse oxymeter Monitor & Nasal Oxygen:
   - Probe of the Pulse–oxymeter should be put on a finger that is not thick & has no nail enamel, usually the index finger of the left hand.
   - Oxygen by Bi-nasal prongs: nasal prongs will be placed so that the loops will come around the ears & the prongs are tightened under the chin. Oxygen is usually needed at 2 – 6 lit / min to maintain the oxygen saturation at greater than 95.
   - Check head low mechanism is working to prevent aspiration if vomiting takes place.

D) Resuscitation check:
   - Ambu bag apparatus with mask,
   - Laryngoscope
   - Airway appropriate size
   - Magille’s forceps
   - Endotracheal tube appropriate size

Essential Theatre Arrangement for Routine Monitoring of All basic procedures

Essential Theatre Arrangement for Conscious Sedation

Routine prep.: diagnostic UGI/LGI scopy:

Vital statistics: Pulse, BP, Hemoglobin
Any medication being taken by the patient regularly?

10% Xylocaine throat spray

Pre medication (if indicated)
Atropine (0.5 mg) / glycopyrrolate 0.2 mg IM
Inj Ondanseteron (Emeset 2 cc IM both 1/2 hour prior procedure

IV access:
Diagnostic procedure, no blood loss expected:
22 G (blue) intracath
Therapeutic procedure, minor blood loss possible:
20G (pink) intracath
Therapeutic procedure, major blood loss likely:
18G (grey) intracath/2 sites

Preferred IV site for Endoscopy patients:
Right forearm (second choice, dorsum of hand); with three way; heplock flush

Conscious sedation preferred drugs:
Midazolam 2 mg in 5 cc IV titrate
IV Fentanyl
IV Propofol

Reversal Agent for Benzodiazepines:
Flumazenil
Naloxone

Preparation for GA with intubation:
Propofol
Scoline
Long acting relaxant (as per anaesthetist)
Endotracheal tubes ready

Adult male 8 to 8.5 size
Adult female 7 to 7.5 size
Paediatric cases (as per anaesthetist)

Preparation of the Boyle’s machine as per the Boyls machine protocol
Identifying patients who will need critical monitoring beyond the routine in case of emergency:

ASA Classification of Medically Compromised Patient for Conscious Sedation

I) No systemic disease
II) Single mild well controlled systemic disease
III) Multiple/moderately controlled syst. diseases
IV) Poorly controlled systemic diseases

ASA class I & II can be considered for conscious sedation without prior pre op anaesthesiology consultation.

Quick Indices suggestive of need of prior anaesthesiology consult as patients are likely to tolerate sedation poorly:

- WBC counts beyond 20,000 / mm$^3$
- Age > 60 years
- Hemodynamic instability (p>110, BP<100 mmHg)
- PaO$_2$ < 92 on room air; respiratory rate > 20 min
- Cirrhosis of liver
- Regular users of alcohol (difficult to sedate)
- Medication history sugestive of cardiac failure (digoxin use)
- asthma (bronchodilators)
- Multiple systemic diseases (Liver, Kidney, CVS)

Predicting a Difficult airway if ventilation needs assistance: these assessments can be done while spraying the throat before gastroscopy; but will needed to be remembered and done before colonoscopy if required

1) TM joint mobility (open mouth wide)
   Can move jaw forwards (ease of laryngoscopy)

2) Mallampatti test for tongue to pharynx size:

3) Thyromental distance (Patil teat)
   mentum to thyroid notch < 3 finger breadths is predictive of difficulty

4) Atlanto Occipital extension: Can the oral, pharyngeal & laryngeal axes be aligned? Bend, extend & sideways movements of the neck possible?

   Grade I  > 35°  
   Grade II 22° to 34°
   Grade III 12° to 21°
   Grade IV < 12°

5) Symmetry of the nose & patency of the nasal passage

Conscious sedation in Endoscopy department will be given by a competent Anaesthetist independent from the Endoscopy Team at all times. At present the use of drugs altering consciousness by any Endoscopy Team member is not to be practised.

In Procedure Monitoring

In every patient undergoing Conscious Sedation, the pulse, BP and RR will be recorded before & after the procedure.

In addition, these parameters will be recorded during the procedure at least every 15 minutes, or more frequently if the anaesthetist requires.

Routine monitoring will include in addition, continuous pulse oxymetry.

Sedation level will be assessed clinically by the Independent Anaesthetist.

If required continuous EKG monitoring as well as non invasive BP monitoring will be made available for patients with a known cardiac or rhythm abnormality.

At present there is no provision for capnography. Deep sedation will be monitored by the Anaesthetist.
**Recovery Transfer:** Transfer after the procedure in the Endoscopy OT to the recovery will be decided by the Anaesthetist who attended the Procedure alone. He / She will also be the sole person from the Anaesthesia department who will decide appropriateness for discharge from the recovery / as well as fitness to be sent home.

The simple criteria that the Recovery staff will monitor to quantitatively assess psychomotor recovery from anaesthesia will be as follows:

- response to pain
- spontaneous eye opening
- response to verbal commands
- can tell his address & recognize people
- stable hemodynamics
- can sit without support
- can walk without swaying

If all above criteria are fulfilled, the Anaesthetist’s assessment about recovery of psychomotor & cognitive functions will remain mandatory and final (especially non propofol patients)

**Advice on discharge after having undergone an Endoscopic procedure under Conscious Sedation:**

Every patient undergoing any endoscopic procedure is informed that in case sedation is deemed necessary, they will need to stay in the recovery for at least 2 hours following recovery from the procedure, in spite of the fact that very short acting sedatives will be used. As subtle effects on higher level mental functions will remain even after apparent complete recovery from sedation, they will be advised to positively bring another person who could accompany them home. They are advised in writing not to drive or operate machinery that day.