

S INFO

The essence of medical practice

Membership of the royal colleges of physicians of the united kingdom









October-December 2010 Volume 1 Issue 2

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Published by

Medical Services Department ACI Pharmaceuticals Novo Tower, 9th Floor 270 Tejgaon Industrial Area Dhaka-1208 web: www.aci-bd.com

Editorial

Dear Intern's,

We convey our gratitude and appreciation to your wholehearted support of our first issue. We acknowledge with great pleasure, the response received from you, especially we are grateful for the wealth of your suggestions as well as valuable comments regarding our inaugural issue of Intern's Info Medicus. We look forward to your continued support to make this endeavor of ours worthwhile.

Membership of the Royal Colleges of Physicians MRCP UK as the topic of the Career Center in this issue from which you can get all the fundamental information about MRCP UK.

In the Clinical Skills section we have focused on Nasogastric tube intubation, which is frequently used for the management of patients who required decompression of the gastrointestinal tract, diagnosis and assessment, nutritional support and for administration of medications. In Clinical Focus we review on management of pre-eclampsia/eclampsia, we hope this may be useful in your day to day practice. Other features like Image Challenge, Emergent Care and most attractive Doctors Jokes are there as usual.

That's all for now and we would expect your cooperation and suggestions as always.

Thanks and best regards **ACI Pharmaceuticals**

(Dr. S. M. Saidur Rahman) Medical Services Manager

(Dr. Rumana Dowla) Manager, Medical Information & Research

MRCP UK

The three Royal Colleges of Physicians of the United Kingdom share a common membership examination in general medicine: this is the examination for the Diploma of Membership of the Royal Colleges of Physicians of the United Kingdom. The examinations are run by the Royal College of Physicians of London, the Royal College of Physicians of Edinburgh, and the Royal College of Physicians and Surgeons of Glasgow. Successful candidates are eligible to apply for the award of the MRCP UK Diploma.

Parts of MRCP UK examination

The MRCP UK examination has three parts: MRCP UK Part 1 (written paper), MRCP UK Part 2 (written paper), and MRCP UK Part 2 (clinical examination).

MRCP Part 1 written examination

The MRCP UK Part 1 written examination has a two-paper format. Each paper is 3 hours in duration and contains 100 multiple choice questions in one from five (best of five) format, where a candidate chooses the best answer from five possible answers. To take the MRCP UK Part 1 written examination, a person must have a medical qualification that is recognised by the colleges, and at least one year of experience in a medical post.

Papers composition (Part 1 written)		
Specialty	Number of questions*	
Cardiology	15	
Clinical haematology & oncology	15	
Clinical pharmacology, therapeutics & toxicology	20	
Clinical sciences	25	
Dermatology	8	
Endocrinology	15	
Gastroenterology	15	
Neurology	15	
Ophthalmology	4	
Psychiatry	8	
Renal medicine	15	
Respiratory medicine	15	
Rheumatology	15	
Tropical medicine, infectious & sexually transmitted diseases	15	
Total	200	

*This should be taken as an indication of the likely number of questions. The actual number may vary by up to 2%.



MRCP UK Part 2 written examination

The MRCP UK Part 2 written examination can be taken by physicians in training who have passed the MRCP UK Part 1 examination or who have exemption from the MRCP UK Part 1 examination. Three papers ask about the diagnosis, investigation, management and prognosis of patients in various clinical examination least one year of experience in a medical post. Scenarios, using multiple-choice questions. All papers in the MRCP UK Part 2 written examination are 3 hours in duration and contain up to 100 multiple choice questions that are either one from five, where a candidate must choose one from five possible answers, or two from 10, where candidates must chose two answers from a list of 10 options.

Papers composition (Part 2 written)		
Specialty	Number of questions*	
Cardiology	10	
Dermatology	5	
Endocrinology & metabolic medicine	10	
Gastroenterology	10	
Haematology/Immunology	5	
Infectious diseases and GUM	10	
Neurology/Ophthalmology/	10	
Psychiatry		
Oncology and palliative medicine	5	
Renal medicine	10	
Respiratory medicine	10	
Rheumatology	5	
Therapeutics and toxicology	10	
Total	100	

*This should be taken as an indication of the likely number of questions. The actual number may vary by up to 2%.

Career Center

MRCP UK Part 2 clinical examination (PACES)

Practical exercises and discussions with the examiners assess skills in physical examination, history taking, and communication and ethics. MRCP UK part 2 clinical examination consists of five clinical stations, each assessed by two independent examiners. Candidates will start at any one of the five stations, and then move round the carousel of stations, at 20 minute intervals, until they have completed the cycle. There is a five-minute period between each station.

Examination format (Part 2 clinical)		
Station	Duration of examiner-to-candidate contact	
Station 1	Respiratory system examination	10 minutes
Station 2	Abdominal system examination	10 minutes
	History-taking skills	20 minutes
Station 3	Cardiovascular system examination	10 minutes
Stations	Nervous system examination	10 minutes
Station 4	Communication skills and ethics	20 minutes
Station 5	Skin, locomotor, endocrine, eye 20 minutes	

Online application

To register for an online account candidates will need a unique email address which will remain as their username. No candidate will be permitted to take any part of the examination unless all the fees are paid in full. When making an online application, candidates are required to submit the followings:

A signed e-Form with attached cheque/bank draft payment (if choosing the cheque method of payment). The fee must be in pounds sterling.

Examination fees				
Examination	Examination centre	Fee(s)		
Part 1 written & Part 2 written	UK	£379		
	Overseas*	£536		
	Hong Kong	HK\$7,511		
	Singapore	£536+S\$540**		
Part 2 clinical	UK	£595		
	Overseas*	£1,085		
	Hong Kong	HK\$13,184		
	Singapore	£1,200+S\$540**		

*Bangladesh, India, Malaysia, Nepal, Pakistan , Sri Lanka etc.

** Additional local exam fee to National University of Singapore

 Diploma of primary medical qualification (original or attested copy only) or General Medical Council (GMC) UK registration number (meaning that your details appear on the GMC website).

Advantages for oneline applications

The online application process is quick, convenient and good value for money. Applying for examinations online has several advantages

- Be able to apply right up to the deadline, without worrying about the postal service.
- Enjoy the safety and ease of online payment for fees.
- Have peace of mind when receipt of application and place on the exam date are confirmed quickly.
- Find out results as soon as possible, as authority are published online.

Minimum passing score				
Examination	Total score	Passing score		
Part 1 (written)	999	521		
Part 2 (written)	999	425		
Part 2 (clinical)	56	42		

Conclusion

Candidates should check carefully that they have enclosed all relevant documentation before sending their applications. Applications that are not complete in every detail and/or arrive after 5 p.m. (GMT) at the MRCP UK central office on the closing date may be returned. Allowances cannot be made for postal or other delays.

For more information MRCP UK Central Office 11 St. Andrews Place Regent's Park London NW1 4LE United Kingdom Telephone: +44 (0)20 7935 1174 Web: http://www.mrcpuk.org

Reference : http://www.mrcpuk.org

Image Challenge

Puzzle Your Mind



1. What is the diagnosis?

a. Subcutaneous metastases

- b. Filariasis
- c. Caput Medusae d. Neurofibromatosis
- e. Hepatocellular carcinoma



2. What is the diagnosis?

a. Macronodular cirrhosis

- b. Hepatocellular carcinoma
- c. Echinococcosis
- d. Polycystic liver disease
- e.Trophoblastic tumor



- **3. What is the diagnosis?** a. Gout
- b. Rheumatoid arthritis
- c. Gonococcal arthritis
- d. Leprosy
- e. Psoriasis



4. What is the diagnosis?

- a. Anaplastic thyroid carcinoma
- b. Graves' disease
- c. Hashimoto's thyroiditis
- d. Medullary thyroid carcinoma
- e.Thyroid lymphoma



- 5. What is the diagnosis?
- a. Aspergillosis
- b. Adrenal insufficiency
- c. Oral leukoplakia
- d. Pellagra
- e. Lingua villosa nigra



6. What is the diagnosis?

- a. Amyloidosis
- b. Craniopharyngioma
- c. Leukemia
- d. Neuroblastoma
- e. Von Willebrand's disease

(Please see answers in next issue)



Clinical Focus

Management of Pre-eclampsia/Eclampsia Do not leave Place in semi-prone position patient alone Call for HELP duty obstetric, anaesthetic and senior midwife Inform consultants obstetrician and Assess anaesthetist Maintain patency Airway Apply oxygen Assess Protect airway Evaluate pulse and BP Breathing Ventilate as required If absent, initiate CPR Secure IV access as soon as safely Loading dose MgSO4: 4 g MgSO4 Circulation possible in 20% solution IV over 10-20 minutes. Add 8 ml of 50% MgSO₄ solution to 12 **Control seizures** Treat hypertension: if systolic ml physiological saline BP > 170 mmHg or diastolic Maintenance dose MgSO₄: 1 g per BP > 110 mmHg or MAP > 125 mmHghour infusion. Add 25 g MgSO4 Control Aim to reduce BP to around (50 ml) to 250 ml physiological saline hypertension 130-140/90-100 mmHg $(1 \text{ g MgSO}_4 = 12 \text{ ml per hour IV})$ Beware maternal hypotension and If seizures continue or recur: MqSO₄ FHR abnormalities: Monitor FHR with $2 q \le 70 kq; 4 q \ge 70 kq IV as per$ continuous CTG loading dose over 5-10 minutes. Hydralazine: 10 mg IV slowly If this fails: diazepam 10 ml IV or Repeated doses of Hydralazine 5 mg thiopentone 3-5 mg/kg IV paralyse IV 20 minutes apart may be given if and intubate necessary Monitor: Hourly urine output, Close liaison with anaesthetists: may respiratory rate, O₂ saturation & patellar require plasma expansion reflexes-every 10 minutes for first **Labetalol:** 50 mg IV slowly if BP still 2 hours and then every 30 minutes. uncontrolled. If necessary repeat after Check serum magnesium if toxicity is 20 minutes or start IV infusion: 200 mg suspected on clinical grounds in 200 ml physiological saline at **Stop infusion:** Check magnesium 40 mg/hour, increasing dose at halflevels and review management with hourly intervals as required to a consultant if: maximum of 160 mg/hour Urine output <100 ml in 4 hours lf not or if Patellar reflexes are absent postpartum The continuation of pregnancy is not Respiratory rate < 16/minute or if Deliver an option if eclampsia occurs or if Oxygen saturation < 90% Stabilise the mother before Always get suppression of reflexes delivery before respiratory depression Delivery is a team effort: involving Antidote: 10% calcium gluconate 10 ml Investigations IV over 10 minutes obstetricians, midwives, FBC & platelets U&Fs anaesthetists and paediatricians Observations Ergometrine should not be used in Urate, LFT Pulse oximeter Coagulation screen severe pre-eclampsia and eclampsia BP, ECG Group & hold serum Consider prophylaxis against Respirations 24-hour urine thromboembolism Temperature collections for: Maintain vigilance as the majority of Test urine for protein Hourly urine output Total protein & eclamptic seizures occur after creatinine clearance Fluid balance charts delivery FHR - monitor continuously Catecholamines Reference : Royal College of Obstetricians & Gynaecologists

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Nasogastric Tube Intubation

Nasogastric (NG) tubes are frequently used in the management of patients who require decompression of the gastrointestinal tract, diagnosis & assessment, nutritional support and medication administration. The use of NG tubes is associated with respiratory (pulmonary aspiration), gastrointestinal (diarrhea, constipation, nausea and vomiting), metabolic (dehydration, electrolyte imbalance) and tube related (nasopharyngeal trauma/ulceration nasal ulcers, tube occlusion, tube displacement/dislodgement) complications.

Indications

- Removing stomach contents
- Diagnostic
 - GI bleedingPenetrating or
 - blunt trauma
 - Gastric juice
 - analysis
- TherapeuticParalytic ileus
 - Gastric dilatation
 - Intestinal obstruction
 - Persistent vomiting
 - - ns Me
 - Removal of toxins and pill fragments

Patient preparation

- Give nothing by mouth for several hours.
- Explain procedure to patient, including route, purpose, and anticipated duration of intubation. Obtain consent.
- Have the patient sit upright or raise the head of the bed. If this is not possible, passing the tube with the patient in the left lateral decubitus position has less risk of aspiration than if the patient is supine.
- Check for nasal obstruction. Have the patient inhale briskly through each nostril and use the more patent nostril for intubation. Find out if they breath easier out of one nostril or the other.

Test the gag reflex. Patients unable to gag are at increased risk for pulmonary aspiration. Local anesthesia is indicated only for the most difficult cases.

Tube markings

- First marking (40 cm): When the marking is present at the tip of the nose, it indicates that the lower end of the tube is at the cardiac end of the stomach in adult.
- Second marking (50 cm): Indicates tip has reached the body of the stomach.
- Third marking (60 cm): Indicates tip has reached the pylorous.
- Forth marking (65 cm): Indicates tip has reached the 1st part of the duodenum.

Equipments

- Gloves
- Sterile gauze
- Protective gown
- Face shield NG tube
- Lubricant (e.g., liquid paraffin)
- Vasoconstrictor spray (e.g., oxymetazoline)
- Topical anesthetic (e.g., 2% lidocaine)
- Glass of water and a straw
- Emesis basin
- Absorbent towels or pads
- 50 cc syringe
- Stethoscope
- Adhesive tape
- Low power suction device or drainage bag

Tube insertion

- Position the patient so that he or she is sitting upright in the "sniffing" position (neck flexed and head extended).
- Lubricate the distal end of the nasogastric tube and insert it into the nasal cavity, slowly passing it posteriorly along the floor of the nasal canal.

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surgery or peritoneal lavage Prevention of aspiration in multiple trauma

Prophylactic

prior to

abdominal

Decompression

Instillation of materials

- Contrast
- Charcoal
- Medications
- Feedings

Clinical Skills

- Instruct the patient to breathe through the mouth.
- Introduce the tip of the NG tube into the nostrils and slowly advance the tube straight back into the posterior nasopharynx. At the same time the patient is asked to swallow repeatedly (if conscious). Swallowing of small sips of water may enhance passage of tube into oesophagus.
- Advance the tube until the previously noted mark is reached at the level of the nose.

Confirmation

- If the patient is unable to talk or in respiratory distress or if respirations can be heard through the nasogastric tube, tracheal intubation has probably occurred, and the tube should be immediately removed.
- Proper placement is suggested (though not unequivocally confirmed) by auscultating borborygmus over epigastrium as air is injected into the tube with 50 cc syringe.
- If any question with regard to proper placement, or if agents such as activated charcoal are to be instilled though the tube, a chest radiograph should be obtained to confirm placement.
- Visualization of the descent of the tube below the diaphragm provides such confirmation.

Securing tube

Secure the NG tube by adhesive tape (cut a 7 cm length of 1 inch wide adhesive tape and tear it halfway down its vertical length).

Complications

- Minor complications of nasogastric intubation include sinusitis, epistaxis, and sore throat.
- More serious complications include esophageal perforation, aspiration, pneumothorax, and rarely, intracranial placement.

References :

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- 1. N. Engl. J. Med. April 27, 2006;354(17):e16
- 2. www.medicineclinic.org
- 3. www.emedicine.medscape.com
- 4. www.apps.med.buffalo.edu







Measure the NG tube



Swallow of small sips of water



Secure the NG tube by adhesive tape

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Management of Epistaxis

Epistaxis is a common presentation in accident and emergency departments. Management depends on thorough evaluation of the patient. Immediate aim of management is to locate the bleeding point by using a head mirror or other light source and control of the bleeding site. Subsequently the cause of epistaxis is to be found out and treated. The vast majority of cases of epistaxis can be managed successfully within general practice.

Step 1: First aid

- Epistaxis is a distressing experience for the patient; so it is always helpful to try to remain calm around patient.
- Epistaxis can be a very bloody affair and remember the "3 Gs": gloves, gown, and goggles.
- Resuscitate the patient first if necessary.
- Take a quick but comprehensive history.
- The patient should be sitting up and bendings lightly forwards to prevent blood from tracking into the pharynx. Most bleeds are from the anterior septum.
- Ask the patient to apply direct pressure by pinching the lower part of the nose for 10-15 minutes.
- At the same time, the patient should be mouth breathing and spitting all blood or saliva into bowl.
- An ice pack placed over the dorsum of the nose may help with haemostasis.
- Proceed for cauterizing the bleeding points.
- Most epistaxis will stop with direct pressure.

Step 2: Cautery

- Equipments:
 - Lidocaine and phenylephrine spray
 - Headlight
 - Torch
 - Nasal specula
 - Suctioning facilities
 - Silver nitrate cautery sticks
- Explain the patient about the procedure
- Inspect the nasal cavity and clear out any blood or clots with gentle suction.



- Spray the nasal cavity with lidocaine and phenylephrine spray and wait for a few minutes. Although spraying the nasal cavity is not widely practised. Phenylephrine is a potent vasoconstrictor and lidocaine provides local anaesthesia when inspect the nose for cautery.
- Adequate illumination is important. If a headlight is not available, an otoscope can be used.
- Inspect the nasal cavity. An obvious site of bleeding may be noted or indicated by a prominent surface blood clot, which is usually at the anterior septum.
- Once identified the bleeding points, apply the cautery for approximately 10 seconds. Start from the edge of the bleeding point and move centrally in a radial fashion.
- If there is no more active bleeding, the patient may be discharged with an advice leaflet providing there are no other medical problems.

Step 3: Nasal packing

Preparation of the pack

A six foot strip of vaseline gauze is placed into a surgically clean bowl and mixed with triamcinolone and antibiotic cream. Many alternate mixtures exist, such as paraffin plus neotracin, or the traditional Bismuth and Iodoform Paraffin Paste (BIPP).

Anaesthesia

The patient's nose should be adequately anaesthetised, although it may be difficult. A good headlamp and suction is necessary to clear any blood from the airway. Using cophenylcaine or cocaine spray or swabs, the nasal mucosa is anaesthetised as much as possible. The use of parenteral premedication or sedation should be used with caution as it is possible to tip the patient over into hypovolemic shock if blood loss has been severe.

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Emergent Care



Technique

A Foley's catheter with a foam stay placed on its proximal end is inserted along the floor of the nasal cavity under the inferior turbinate to the nasopharynx. The part of the catheter beyond the balloon may be removed to facilitate positioning and improve patient comfort. The pharynx is viewed to make sure the catheter has not passed into the oropharynx. The catheter balloon is then inflated with up to 8 ml of normal saline, and should be no larger than the size of the choana (the posterior nasal aperture), and then brought forward by gentle traction.

At this stage there should be no blood in the pharynx if the choana is obstructed and the catheter is on the correct side. The prepared pack is picked up in a loop, the length of which should be the length of the packing forceps, which is approximately equivalent to the length of the floor of the nose. The loop is inserted inferiorly to the Foley's catheter, and subsequent loops placed above these parallel to one another and the floor of the nose. The catheter needs to be fixed in position by the piece of foam being applied to the alar margin; this prevents any erosion of that margin. A suitable clamp is used to fix the stay in place. This may be an intravenous line or an umbilical clamp, the former preferable, as it is more easily adjustable. The tension on the catheter should be sufficient to keep it in place but not enough to interfere with the viability of the skin of that region. The pack can then be left in place for one to three days which is necessary to stabilize the haemostasis. Often the tension on the catheter is released after 24 hours but the catheter is left in place.

Continuing bleeding

A range of medical and surgical interventions is required in cases of continuing and/or severe bleeding. A medical intervention is as intravenous administration of Tranexamic Acid, 0.5-1.0 g four times a day.

References:

- 1. Aus. Fam. Phys. Aug. 2002; Vol. 31, No. 8
- 2. Postgrad. Med. J. 2005; 81:309-314
- 3. Emerg. Med. J. 2005; 22: 470-472

Doctors Jokes





