

Allergic Diseases

1. A patient has C1 esterase deficiency hereditary angioedema. Are ACE inhibitors contraindicated?

It is not an absolute contraindication, but it is not recommended. Patients with C1 esterase inhibitor deficiency do appear more likely to develop angioedema from ACE-I than those without the disease. Only in rare instances with a clear-cut favorable risk-benefit ratio would this be done.

Gerald W. Volcheck, M.D.

2. Is it unusual for a 65 year old patient to suddenly develop seasonal allergies? Never had allergies all her life.

Though it is not the usual pattern, this does occur. The majority of people will develop allergies in childhood or early adulthood, but clearly there is a group with the late development of allergies in their 50s, 60s, or 70s.

Gerald W. Volcheck, M.D.

3. What are the potential SE of long term intranasal steroids? (Any change in appetite or impaired smell?)

Overall long term use of intranasal steroids appears to be very safe. There is no damage to the mucosa associated with long term use. There is no change in sense of smell or appetite. The main side effect is epistaxis which can occur at any time point with the use of intranasal steroids.

Gerald W. Volcheck, M.D.

4. How do you treat the rhinorrhea that many elderly get with eating (no relationship to temperature of food or type of foods)?

This condition is called gustatory rhinitis. The treatment is Atrovent (ipratropium) nasal spray 0.03% or 0.06% (usually use the 0.03% in the elderly) 2 squirts each nostril 30 minutes prior to meals.

Gerald W. Volcheck, M.D.

5. Could you list the relative potencies of inhaled broncho dilators?

From most potent to least potent: fluticasone, mometasone, budesonide, flunisolide, beclomethasone, triamcinolone

The low dose, medium dose and high dose for all of these medications can be found in the National Asthma Education and Prevention Program (NAEPP) Expert Panel Report 3 (2007) Guidelines for the diagnosis and management of asthma. NIH publication No. 07-4051

Gerald W. Volcheck, M.D.

6. Any treatment for vocal cord dysfunction?

The primary treatment is recognition of the process. The best results are seen with speech physical therapy where breathing techniques and exercises are reviewed that help keep the vocal cords open during the onset of symptoms.

Gerald W. Volcheck, M.D.

Cardiology

1. In the setting of acute ST elevation INF MI s/p stent, if a patient has third degree AV block yet hemodynamically stable, would a temporary transvenous pacemaker be indicated?

Not if stable since recovery is usual and TPM has risks including perforation etc. would only consider if symptomatic

Peter A. Brady, M.B., Ch.B., M.D.

2. Our hospital is encouraging the use of ultrafiltration in patients with CHF refractory to diuretics. Can you comment on this? I frequently see acute renal failure following this treatment.

Ultrafiltration is being now tested in a NIH sponsored trial. A prior clinical trial has shown benefits in terms of reducing hospital stays and achieving a greater weight loss than traditional methods. If hypotension occurs in these patients due to aggressive volume removal renal failure could occur. The question to ask in your patients is why do they have renal failure - are they candidates for ventricular assist devices or heart transplantation.

Naveen L. Pereira, M.D.

3. Although I presume would not yet be a board question, I would appreciate it if one of the cardiologists briefly spoke on the role of calcium scores and CT Angiography of coronary arteries. I am not sure if/how I should use these tests. e.g. If someone has a high calcium score I am told to optimize risk factor management, but how do you NOT pursue cardiac cath?

In general widespread use of Coronary Calcium Scoring is not recommended for screening/risk stratification. It may be reasonable to perform in patients at intermediate risk (by Framingham score 10-20% risk of developing CHD), though this too is not standard practice.

Also, it may be reasonable to perform in patients with cardiac type symptoms who are estimated to be at low risk for CAD, to rule out CAD. Again, this is not standard practice.

In an asymptomatic patient with a high score (>400), the AHA guidelines recommend intensive risk factor treatment, but state that additional non-invasive testing is of uncertain value. However, in practice, many cardiologists will perform a stress test to assess for ischemia because the CT score does not indicate whether the coronary atherosclerosis is obstructive or not. A patient with a moderate to strongly positive stress test should be considered for angiography even if asymptomatic.

Abhiram Prasad, M.D.

4. Should we strictly enforce fluid restrictions for fluid overload?

Yes, this would enable using a lower diuretic dose

Naveen L. Pereira, M.D.

5. What is the difference or EBM for using IMDUR (isosorbide mononitrate) vs Isosorbide Dinitrate w heart failure pts...? survivability is isosorbide dinitrates. If that is the case is there any EBM for using IMDUR?

Could use isosorbide mononitrate, in the AHEFT dinitrate was used because of the concept of a combination pill with hydralazine trade marked as BiDiI

Naveen L. Pereira, M.D.

6. Following a stent placement, is aspirin at 162 mg recommended now with plavix rather than 81 mg of ASA? Why?

Currently, a dose of 162-325 mg dose is recommended while a patient needs Plavix. This reflects the doses used in the drug eluting clinical trials, and to some extent the belief that lower doses of 81-162 mg, are probably, as effective as the higher doses.

Abhiram Prasad, M.D.

7. Are you discouraging the use of Prilosec / Prevasid in cardiac patients on Plavix?

Currently, we are not recommending major changes to practice. The following are some general recommendations:

- Do not use "prophylactic" PPI to prevent stress ulcers in these patients
- In patients already receiving PPI therapy for symptomatic reflux or peptic ulcer, reevaluate the need to continue it, and discontinue it if there is no definite indication
- Continue the therapy if the patient clearly has benefited from it
- Consider histamine2 blockers as an alternative

Abhiram Prasad, M.D.

Critical Care

1. How is CPAP different from NIPPV? Is CPAP only restricted for OSA patients?

CPAP and BiPAP are both forms of NIPPV. CPAP applies only one pressure through out the respiratory cycle, hence the name continuous positive airway pressure. BiPAP applies a higher pressure in inspiration than in expiration hence the name BiLevel PAP.

Otis B. Rickman, D.O.

2. To calculate tidal volume, is this always based on ideal bodyweight or just for ARDS?

Tidal volume should always be based on IBW. 6ml/kg for ARDS or injured/stiff lungs and 8-10ml/kg for normal/postop/COPD lungs. IMHO most important thing is to keep Plateau pressure less than 30.

Otis B. Rickman, D.O.

Endocrinology

1. If an adrenal incidentaloma <4 cm is noted on a CT scan, does this warrant any screening studies for aldosteronism or pheochromocytoma? (presumably a benign appearance and patient is asymptomatic)

Typically, if the incidentaloma is small, we would recommend screening for Cushing's syndrome (either 24-hour urine free cortisol or 1mg overnight Dexamethasone suppression test); and screening for Pheochromocytoma ("mets and cats") and for Conn's syndrome (Renin / Aldosterone) if there is either hypertension or hypokalemia.

Bryan McIver, M.B., Ch.B., Ph.D.

2. If hemoglobin A1C is elevated (used as a screening test for DM) at what point should this be repeated for confirmation?

HbA1c needs to be repeated another day. There is no clear guideline of when it should be checked. I suspect the need to repeat is to make sure that it was not a lab error. So any other day should just be fine.

I am always reminded of the limitations of HbA1c ...

patients with iron deficiency have longer RBC lifespan (of course if not bleeding) and therefore may be falsely higher;

on the other hand, patients who have had blood transfusion recently or has elevated retic count, suggesting increased number of younger cells and therefore shorted duration of exposure of glucose to the RBCs (and therefore Hb): these patients will have a falsely lower concentrations of A1c.

Pankaj Shah, M.D.

3. Should metformin be held when a patient is hospitalized (for risk of developing "lactic acidosis")?

Metformin should be held whenever the procedure is likely to put kidneys at risk. This applies to Radiocontrast (not MRI contrast) imaging. This applies also to all major surgeries where meals are out of schedule. But not for surgeries where patient is able to eat the next meal - when we give the tablet at the time of the meal. Metformin should not be taken independent of the meals.

In general we tend to stop metformin (and other oral agents) in patients hospitalized for a length of time.

We often forget to restart metformin after it has been 'held'.

Pankaj Shah, M.D.

4. Is sulfonylureas associated with an increased risk of coronary disease?

No use of sulfonylurea is not associated with increased risk of coronary heart disease. There was one poorly conducted study in 1970s which showed such a finding, however, when compared to insulin or metformin at least sulfonylurea is not associated with increased risk of MI. The theoretical reason of problems with glyburide is that the size of MI will be higher in animals on glyburide, than off glyburide.

On the other hand no direct studies have shown that sulfonylurea induced correction of blood glucose is associated with lower CV risks. Metformin used to control hyperglycemia on the other hand has been shown to reduce CV events and / or death (in one study).

Pankaj Shah, M.D.

5. When do you hold (preoperative) Metformin? Should we hold Metformin in orthopedic surgeries? In what procedures?

Metformin should be held whenever the procedure is likely to put kidneys at risk. This applies to Radiocontrast (not MRI contrast) imaging. This applies also to all major surgeries where meals are out of schedule. But not for surgeries where patient is able to eat the next meal - when we give the tablet at the time of the meal. Metformin should not be taken independent of the meals.

In general we tend to stop metformin (and other oral agents) in patients hospitalized for a length of time. There is nothing special about orthopedics surgeries. We often forget to restart metformin after it has been 'held'.

Pankaj Shah, M.D.

Gastroenterology

1. Do you treat asymptomatic young individuals that test positive for H. Pylori? (Sometimes this is ordered in the ER for reasons unclear!)

This emphasizes the importance of only testing for things if you are willing to treat if positive. Once I see a positive H pylori test in someone who has not been treated, I feel obligated to offer treatment. This is because I am not able to quote to them what their risk of getting peptic ulcer disease is, and importantly, the WHO lists H pylori as a class I carcinogen, so if they would later develop a gastric cancer or gastric lymphoma (even though rare), there may be liability there.

If someone is opposed to therapy given they are asymptomatic or they have allergies to everything, that warrants discussion with them accepting the small risks of not treating.

This sounds like it may warrant educating your ER on the guideline-based indications for H pylori testing, as listed in my talk. Hopefully that would help avoid this!

Amy S. Oxentenko, M.D.

2. Is there any rule for allergy referral/testing for eosinophilic esophagitis?

Allergy testing referral should be considered in pts with EE if:

- 1). They are a child or young adult
- 2). They have clinical symptoms suggestive of food allergies
- 3). They have recurrent bouts of EE after treatment in all other pts.

Amy S. Oxentenko, M.D.

General Internal Medicine

1. Surgeons at our hospital frequently prescribe compression stocking post-op at discharge to prevent venous thrombosis. Is this effective?

Short answer, they are probably better than nothing for the short run, but high risk patients do better with stockings and anticoagulant prophylactic therapy combined unless risk of bleeding too great. Below is from Chest Supplement ACCP Guidelines.

Specific mechanical methods of thromboprophylaxis, which include graduated compression stockings (GCS), intermittent pneumatic compression (IPC) devices, and the venous foot pump (VFP), increase venous outflow and/or reduce stasis within the leg veins. As a group, mechanical thromboprophylaxis modalities have important advantages and limitations ([Table 6](#)). The primary attraction of mechanical thromboprophylaxis is the lack of bleeding potential. These modalities, therefore, have advantages for patients with high bleeding risks. While all three of the mechanical methods of thromboprophylaxis have been shown to reduce the risk of DVT in a number of patient groups,¹²[626364656667686970](#) they have been studied much less intensively than anticoagulant-based approaches and they are generally less efficacious than anticoagulant thromboprophylaxis.

GCS are also heterogeneous with respect to stocking length, ankle pressure, gradients in pressure, and fit. The effects of the specific design features of each of the mechanical devices on the prevention of DVT are unknown.

Scott C. Litin, M.D.

Hematology

1. Is history of saddle pulmonary emboli with or without cardiopulmonary arrest an indication for placement of IVC filter in addition to anticoagulation?

Good question, no data on this, however, saddle embolus with out hemodynamic compromise does not necessarily need a filter, but likely is used, for patients with heodynamic compromise, it is typically used.

Rajiv K. Pruthi, M.B.B.S.

2. What about using heparin or enoxaparin in DIC?

Role of heparin in DIC is controversial. It may be useful in malignancy and vascular malformation associated DIC, but there are no trials that prove their benefit.

Rajiv K. Pruthi, M.B.B.S.

Immunization

1. 45 WM with hepatitis panel negative, received Hep B series x 3 shots for employment, post vaccination developed HBcAG and HBsAB positive. Interpretation and time when HBcAG will become negative, does he need any treatment?

Hepatitis B core antigen (HBcAg) is an intracellular antigen that is expressed in infected hepatocytes. It is not detectable in serum.

Anti-HBc can be detected throughout the course of HBV infection. The detection of IgM anti-HBc is usually regarded as an indication of acute HBV infection. However, IgM anti-HBc may remain detectable up to two years after the acute infection. IgG anti-HBc persists along with anti-HBs in patients who recover from acute hepatitis B.

Prathibha Varkey, M.D., M.P.H., M.H.P.E.

2. 52 wm received Hep B series for employment needs, did not respond with HBsAB, was given 2nd series of Hep series x 3 shots, still did not develop immunity. No immune deficiency. Recommendations for immunization in such a person?

Unfortunately, this patient appears to be a non-responder; hence they will need to be tested on exposure and treated with immunoglobulins if exposed.

Prathibha Varkey, M.D., M.P.H., M.H.P.E.

3. 18 year old received HPV vaccine one dose. She got pregnant. When do you give other doses of the HPV vaccine?

Based on the CDC, the HPV vaccine should not be given to women who are pregnant. Although the vaccine has not been causally associated with adverse pregnancy outcomes or adverse events to the developing fetus, data on vaccination in pregnancy are limited.

Prathibha Varkey, M.D., M.P.H., M.H.P.E.

4. 54 old got Hep A and Hep B once 4 weeks before travel, comes back from overseas after building church for 1 year. When and how many doses of Hep. A and Hep B vaccines do you give for protection?

Hepatitis B requires 3 doses; Hepatitis A requires 2 doses ; The second dose is given no sooner than six months after the first dose.

Prathibha Varkey, M.D., M.P.H., M.H.P.E.

5. I have a patient who had a splenectomy from a MVA. She is in her mid 40's. Do I administer pneumovax every 5 years for the rest of her life? What about the meningococcal vaccine? Every 5 years too?

For patients post splenectomy after MVA, here are some guidelines from the Surgical Infection Society Guidelines for Vaccination after Traumatic Injury

Thomas R. Howdieshell, Daithi Heffernan, Joseph T. Dipiro. Surgical Infections. June 2006, 7(3): 275-303.

"Vaccination should be given two weeks before elective splenectomy, or two weeks after emergency splenectomy . A booster dose of pneumococcal vaccine is recommended after five years; no re- vaccination recommendation is made for meningococcal or Haemophilus influenzae type B vaccine. "

There are other recommendations that suggest rechecking antibody titers to pneumococcus and then providing booster based on the same.

Prathibha Varkey, M.D., M.P.H., M.H.P.E.

6. Lymphoma patient should not get any live vaccines but is that true when patient is in remission for some time and has no evidence of disease and not on active treatment?

Live vaccines should generally be avoided in immunosuppressed patients, including lymphoma/leukemia. However, when indicated, patients in remission may receive live-virus vaccines as long as it is at least 3 months after their last round of chemo/immuno therapy.

Prathibha Varkey, M.D., M.P.H., M.H.P.E.

Infectious Diseases

1. HIV patient with cd 4 315 last visit, 4 weeks ago, now has cd 4 224, says he had cough and flu 2 weeks ago, took tylenol and got better. How do you decide if cd 4 is down due to prior flu episode or HIV progression requiring OI prophylaxis now?

Can only determine with time if this drop is from a acute viral infection or secondary to HIV. If his viral load is undetectable it is almost certainly due to an acute viral infection. CD4 will need to be rechecked and if it dropped to less than 200 I would temporarily start OI prophylaxis for PCP but would stop if next above 200.

Mary Jo Kasten, M.D.

2. Are doctors who work in hospitals considered "high risk" for TB? Which is considered POSITIVE? 10 mm or 15 mm on a PPD test?

Doctors are at high risk of exposure to someone with TB since they see ill patients who could have TB. 10mm is considered positive for doctors but if they were negative before and had a known exposure to a patient with active TB then 5 mm is considered positive in that situation. 15mm never used for doctors.

Abinash Virk, M.D.

3. Do you treat health care workers or people in the community that are colonized with MRSA without signs of active infection?

NO.

Abinsash Virk, M.D.

4. Why is Rifampin added to vancomycin for MRSA bone infection?

To decrease biofilm production. Studies show slightly better infection clearance rates.

Abinash Virk, M.D.

5. If Ceftriaxone is associated with cholelithiasis, is this contraindicated in hospitalized patients with acute gallstone associated cholelithiasis?

NO since short term use is unlikely to cause cholelithiasis in patients on ceftriaxone.

Abinash Virk, M.D.

6. If a patient has a bicuspid aortic valve, is this an indication for endocarditis prophylaxis?

Currently not recommended.

Abinash Virk, M.D.

7. If you suspect endocarditis and have performed lumbar puncture and blood cultures, will giving dexamethasone be harmful if etiology (eguiral) is not yet known? There is a short window and results won't be back yet.

Dexa should only be given if acute community acquired bacterial meningitis is suspected. In a situation where there is endocarditis as well I would hold off dexamethasone -- it is a different clinical situation. But if you are dealing with acute community acquired bacterial meningitis then it is ok to give steroids while awaiting further microbiologic etiology.

Abinash Virk, M.D.

Nephrology

1. For the management of symptomatic SIADH how much furosemide would you give?

20 mg IV every 8 hrs.

Robert C. Albright, D.O.

2. When would you no longer prescribe HCTZ in a patient with renal insufficiency (at what creatinine or creatinine clearance)? Would Lasix be a better choice for BP control in a patient with CRI?

For most patients, a loop diuretic will be more effective when the creatinine reaches 1.5-2.0.

John J. Dillon, M.D.

3. If a patient is hyponatremic (~120), why is normal saline given plus Lasix? I thought sodium will also be excreted with Lasix.

Normal saline can be give to increase the patient's plasma sodium concentration. When Furosemide is given to a patient they excrete a urine consistent with 0.45% saline (net 75 mEq/L of sodium in the urine). Remember that with 0.9% saline that 150 mEq/L of sodium are being replaced, resulting in a net gain in the plasma sodium concentration.

Eddie L. Greene, M.D.

4. A patient is admitted with hyponatremia and on Lasix at home. Would measuring urine sodium be useless? (or, can you check the following at 3 days?)

The urine sodium would less useful if the patient is already on Furosemide. A more useful approach is to use the bedside examination to look for edema as a way to assess the volume status. The urinary sodium concentration is less useful when Furosemide is being used. If possible stop the Furosemide for 6-8 hours then remeasure the urine sodium for a more accurate portrayal of the urine sodium excretion.

Eddie L. Greene, M.D.

Neurology

1. Is there a role for antiseizure medication in alcoholic patients who are often having ETOH withdrawal seizure?

Yes. If having withdrawal seizures, priority would be cessation of alcohol, but would be prudent to treat if ongoing seizures. One seizure, I might not treat it, but more than one, yes I would.

Brian A. Crum, M.D.

Oncology

1. Is a flex sig combined with FOBT adequate screening for colon cancer, or do you need something to get the more proximal colon as well?

You always need to look at proximal colon, so either an imaging study (double contrast barium, or CT colography) should be combined with the flex sig and FOBT.

Timothy J. Moynihan, M.D.

2. Is there a role for surgery in rectal cancer, or just radiation and chemo?

Surgical resection is done for virtually all patients with rectal cancer, except those with wide spread incurable metastatic disease. In patient with rectal cancer we almost always do some chemotherapy and radiation therapy pre operation to make the operation easier and improve chances of cure.

Timothy J. Moynihan, M.D.

3. Should the follow-up lab tests (LFTs, CEA, etc.) be done frequently in all patients following colon cancer treatment, or just the ones with metastatic disease?

In a patient who underwent therapy for colon cancer with curative intent we recommend blood tests and scans every 3-4 months for first 3 years after diagnosis, then every 6 months for years 4-5 post diagnosis, IF the patient's other health is such that they could tolerate a liver or lung resection and chemotherapy. One third of these patients with limited metastatic disease can be cured of their disease, so need to identify those patients early.

Timothy J. Moynihan, M.D.

4. Does testosterone hormone replacement therapy in hypogonadism patients produce Prostate Cancer?

It does not appear to. We do know that those with excessive testosterone levels, either men in the highest quartile of natural testosterone level, or those who have abnormally high levels of testosterone are at increased risk of developing prostate cancer. But if normal replacement is done for hypogonadal state, there does not appear to be an increased risk, but there is not much data on this.

Timothy J. Moynihan, M.D.

5. Is there any role in monitoring breast cancer markers in women who had breast cancer treatment?

There are several serum tumor markers sold for use in monitoring breast cancer recurrence. ASCO and NCCN guidelines all suggest these have no role for routine monitoring for recurrence and are more harmful than helpful. These tumor markers do play a small role in women with known, recurrent, metastatic disease, especially those women who have bone only disease, to monitor disease activity. But for women treated with curative intent, there is no role to use these tests to monitor for recurrence. Many practicing oncologists use these, and many patients anxiously await and monitor their numbers, but we strongly discourage these due to low sensitivity, low specificity and no evidence of improved outcomes with monitoring.

Timothy J. Moynihan, M.D.

6. Is CUP more frequently found in HNPCC (Lynch) Syndrome?

I am not aware that CUP is any more common in patients with HNPCC, as those who have been identified with HNPCC we typically know what to look for.

Timothy J. Moynihan, M.D.

7. Should cyclophosphamide Rx be mentioned as a risk for bladder cancer? (page 96 in syllabus)

Cytosin if given in very high doses or very chronically can have some small influence on subsequent risk of bladder cancer, but when used in the more typical regimens such as for breast cancer that does not seem to substantially increase risk.

Timothy J. Moynihan, M.D.

8. Does radiation therapy for breast cancer increase the risk of developing lung cancer later on in life?

There is no evidence it increases risk of lung cancer later. Left sided breast radiation does increase risk of coronary artery disease later. Newer radiation techniques hopefully will decrease this risk

Timothy J. Moynihan, M.D.

Pulmonary

1. Can UIP be treated with steroids?

In general no. Thus, it would be important to distinguish if the patient has UIP vs NSIP (which is much more steroid responsive).

John G. Park, M.D.

Rheumatology

1. After a patient presents with gout, is there any value to doing a 24-hour urine collection for uric acid to determine whether they are an overexcreter or underexcreter, to determine whether they would benefit most from allopurinol or probenecid?

Unless you are considering probenecid there would be no reason both medications work equally as well but there is more compliance with allopurinol since it is once a day.

William W. Ginsburg, M.D.

2. If a patient has RA and presents with Leukopenia, should you continue methotrexate? If you suspect Felty's, should methotrexate be continued?

Not an easy answer to this question. It depends several factors: the severity and duration of the leukopenia, whether or not the leukopenia is a lymphopenia or neutropenia, the dose and duration of the MTX and the activity of the RA. I would suggest the MD speak with the patients rheumatologist. Sometimes these patients should be seen also by a hematologist as there are other causes for leukopenia beside the RA and the MTX.

Kevin G. Moder, M.D.

Vascular

1. What is the target blood pressure for people with thoracic or abdominal aneurysms?

The lowest BP you can achieve that maintains adequate cerebral and renal function and the absence of symptoms of hypotension. In general, I shoot for systolic 100-110

Peter C. Spittell, M.D.