

# St Andrews Day Festival Symposium

***A symposium held on 1 and 2 December 2011 at the Royal College of Physicians of Edinburgh***

## MANAGEMENT OF DYSLIPIDAEMIA

***Professor Ian Young***, Professor of Medicine, Queen's University, Belfast

Dyslipidaemia is one of the major risk factors for atherosclerotic cardiovascular disease. Elevated levels of total and low density lipoprotein cholesterol (LDLc) and triglycerides and low levels of high density lipoprotein cholesterol (HDLc) increase the risk of coronary heart disease and peripheral vascular disease. At a population level, diet and lifestyle measures have an important role in preventing dyslipidaemia, but impact at an individual patient level is modest. For total and LDLc, there is no clear lower threshold value below which risk does not continue to fall – in general, the lower the level the better in terms of cardiovascular risk. There is overwhelming evidence that lowering LDLc with statins prevents cardiovascular events and reduces mortality, and use of statins should be optimized before considering other therapeutic options. Statin intolerance is relatively common, and is most often due to muscle-related side-effects. In the statin-intolerant patient or where insufficient LDLc lowering is achieved despite use of the maximum tolerated statin dose, consideration can be given to the use of other lipid lowering drugs including ezetimibe, fibrates, nicotinic acid or resins. There is limited evidence from clinical trials to support the use of medication to raise HDLc. However, theoretically this remains a very attractive therapeutic strategy which is being addressed in a number of ongoing clinical trials. It is important to reduce triglycerides in patients with markedly elevated levels (>10 mmol/L) in order to reduce the risk of pancreatitis, and this can be achieved most effectively by using a fibrate.

## DIFFICULT BRONCHIAL ASTHMA – PATHOGENESIS AND MANAGEMENT

***Professor Sally Wenzel***, Professor of Medicine & Director, Asthma Institute, Montefiore Hospital, Pittsburgh, USA

Difficult asthma affects a small portion of the asthma population, yet drives a considerable amount of the costs of the disease. The initial evaluation consists of determining which subtype of difficult asthma the patient has. Difficult asthma consists of syndromes that look like asthma but are not, asthma that is in reality mild asthma, but is difficult to control because of various treatable confounders and asthma (and associated

co-morbidities) that is truly refractory to current therapeutic approaches. Numerous studies are now suggesting that severe asthma consists of several different phenotypes with evolving data to suggest that determining the phenotype of severe asthma that is present may lead to improved outcomes. Approaches to asthma phenotyping have included both biased and unbiased statistical approaches, but all seem to suggest that age at onset, type of inflammation and lung function changes are likely to be important.

Most recently it is proposed that asthma and severe asthma patients can be divided into those with evidence for ongoing Th2 inflammation and those without such evidence. Those with ongoing Th2 inflammation are likely to differ in their response to inhaled corticosteroids and other medications. Distinguishing these phenotypes should also improve the ability to target specific targeted therapies in those individuals who fail to respond completely to corticosteroid therapy. Non-Th2 asthma remains much more poorly understood, but separating out these patients from those with Th2 immune processes may improve our overall understanding.

## References

- 1 Moore WC, Meyers DA, Wenzel SE et al. Identification of asthma phenotypes using cluster analysis in the Severe Asthma Research Program. *Am J Respir Crit Care Med* 2010; 181:315–23. <http://dx.doi.org/10.1164/rccm.200906-0896OC>
- 2 Wenzel SE. Asthma: defining of the persistent adult phenotypes. *Lancet* 2006; 368:804–13. [http://dx.doi.org/10.1016/S0140-6736\(06\)69290-8](http://dx.doi.org/10.1016/S0140-6736(06)69290-8)
- 3 Woodruff PG, Modrek B, Choy DF et al. T-helper type 2-driven inflammation defines major subphenotypes of asthma. *Am J Respir Crit Care Med* 2009; 180:388–95. Erratum in: *Am J Respir Crit Care Med* 2009; 180:796. <http://dx.doi.org/10.1164/rccm.200903-0392OC>

## RECENT ADVANCES IN CRITICAL CARE

***Professor Mervyn Singer***, Professor of Intensive Care Medicine, University College London, UK

Intensive care outcomes have been significantly improving over the last 10–15 years. Paradoxically, this has not been related to any specific new innovation (other than therapeutic hypothermia following shockable cardiac arrest) though many drugs and devices have been trialled and found wanting. The benefit is more related to avoidance of iatrogenic harm (through less blood transfusion, more attention to fluid balance, less sedation, less aggressive ventilation etc...) and improved processes of care, that critically includes earlier recognition and treatment of the sick patient. The speciality is increasingly

appreciating that the main gains are to be had at the time, or preferably before, the patient becomes sick. This underpins the concept of 'critical care without walls' where intensivists and critical care nurses actively intervene with patient management outside the sealed physical bubble of the ICU. As a speciality it is also coming of age in the UK with the recent creation, supported by all the major Royal Colleges, of a Faculty of Intensive Care Medicine. As befitting a 'high-tech' speciality it generates, collects and pools lots of high-quality data (Intensive Care National Audit and Research Centre holds a UK ICU patient database now containing >1 million patient records), and has forged multiple regional, national and international research networks to undertake multicentre randomised controlled trials that feature regularly in the premier peer-review journals.

### References

- 1 Vincent JL, Singer M, Marini JJ et al. Thirty years of critical care medicine. *Crit Care* 2010; 14:311. <http://dx.doi.org/10.1186/cc8979>
- 2 Vincent JL, Singer M. Critical care: advances and future perspectives. *Lancet* 2010; 376:1354–61. [http://dx.doi.org/10.1016/S0140-6736\(10\)60575-2](http://dx.doi.org/10.1016/S0140-6736(10)60575-2)

## END OF LIFE CARE AND ORGAN DONATION

**Dr Stephen Cole**, Consultant in Anaesthesia & Critical Care, Ninewells Hospital & Medical School, Dundee, UK

Patient outcome from intensive care in the UK has steadily improved over the last 10 years; however in 2011 approximately one in six patients do not survive to intensive care unit (ICU) discharge. This equates to around 1,800 deaths/year in Scotland.

End of life care in the ICU differs from that seen in most other areas of the hospital. This is primarily because the critically ill patient is usually dependent for continued survival on life sustaining treatment such as advanced invasive ventilation or cardiovascular support. Generally they cannot survive without the continuation of this advanced organ support.

Planned withdrawal of life sustaining treatment can often take place in a controlled manner following full discussion with the family, referring clinician and members of the multidisciplinary team. This may allow an exploration of the patient's wishes and discussion of any known end of life choices. One such wish may be expressed by signing up to the organ donor register as an altruistic desire to donate one's organs after death.

This presentation will discuss the unmet need, international comparisons and the steps currently being taken in the UK to increase rates of organ donation. The publication by the Department of Health in 2008 of the Organ Donation Task Force Report identified 14 recommendations that if fully implemented could lead to a 50% increase in deceased organ donation over a five-year period.

Practical, ethical and legal challenges around donation after Brain Stem Death (DBD) and donation after Circulatory Death (DCD) will be discussed as well as potential future initiatives to increase rates of organ donation from patients who present to other areas of the hospital such as the Emergency Department.

### References:

- 1 Organ Donation Taskforce. *Organs for Transplants – a report from the Organ Donation Taskforce* [Internet]. London: Department of Health; 2008. Available from: [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_082120.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_082120.pdf)
- 2 Academy of Medical Royal Colleges. *Code of Practice for the Diagnosis and Confirmation of Death* [Internet]. London: Academy of Medical Royal Colleges; 2008. Available from: <http://www.aomrc.org.uk/publications/reports-guidance.html>
- 3 Academy of Medical Royal Colleges. *An Ethical Framework for Controlled Donation after Circulatory Death* [Internet]. London: Academy of Medical Royal Colleges; 2011. Available from: <http://www.aomrc.org.uk/publications/reports-guidance.html>

## TACKLING POLYPHARMACY: SAFE, SENSIBLE SOLUTIONS FOR FRAIL ADULTS

**Dr Martin Wilson**, Consultant Physician in Elderly Medicine, Raigmore Hospital, Inverness, UK

There is a profusion of information to prescribers and pharmacists on the indications for commencing drugs, particularly drugs used for secondary prevention. This drive is not balanced by any comprehensive policy or guidance on when it might be appropriate to stop drugs in patient groups particularly vulnerable to adverse events or whose limited life expectancy is too limited to have a reasonable expectation of obtaining benefit.

This presentation will go over an approach to prescribing in frail adults that covers:

1. An outline of patients felt to be particularly in need of more attention to prescribing.
2. An outline of a process of medication review.
3. Discussion of typical high-risk prescriptions to be avoided.
4. An approach to balancing the range of benefits to the individual of various secondary prevention strategies.

## EXERCISE: AN EFFECTIVE AND SAFE INTERVENTION IN OLDER PEOPLE

**Dr Gillian Mead**, Reader in Geriatric Medicine, University of Edinburgh, Edinburgh, UK

Physical inactivity is the fourth leading cause for global mortality (after hypertension, tobacco use, and high blood glucose). Physical activity over the life-course reduces the risk of more than 20 chronic conditions including cardiovascular disease, cerebrovascular disease, cancer,

mental health problems including dementia, and obesity. Older adults who participate in physical activity gain health benefits. There are various approaches to increasing levels of physical activity in older people, both at the individual level and population level (e.g. environment).

For older people who have survived life-threatening illness, such as acute coronary events, stroke, and falls, there is good evidence that exercise is of benefit. The challenge is how best to increase the uptake of exercise, and help people maintain exercise in the longer term. This requires a multidisciplinary approach, with healthcare professionals working closely with exercise professionals, to provide exercise that is safe and effective. We also need to understand the psychological and social barriers that may prevent older people with these conditions from participation in exercise. The development of exercise after stroke services is an example of where health and exercise professionals are working together to develop pathways into exercise after stroke, and where researchers are seeking ways to support stroke survivors to become more active.

## ALCOHOL RELATED LIVER DISEASE

*Dr Ewan H Forrest*, Consultant Hepatologist, Glasgow Royal Infirmary, Glasgow, UK

Alcoholic liver disease is an increasing problem in the UK. Its cause may appear to be monofactorial, but the pathogenesis is complex. Chronic alcoholic liver disease may be silent until it decompensates. Assessment of chronic disease is similar to that of other chronic liver disease using the Childs-Pugh and/or MELD score.

Alcoholic hepatitis is the most florid manifestation of alcoholic liver disease and can be diagnosed with a minimum threshold of bilirubin (80  $\mu\text{mol/l}$ ), appropriate biochemistry and the exclusion of other liver disease. The Glasgow Alcoholic Hepatitis Score has proven itself to be more accurate than Maddrey's discriminant function in determining outcome.

The use of corticosteroids in alcoholic hepatitis remains controversial however a fall in bilirubin after one week of corticosteroid treatment is indicative of an improved outcome. Pentoxifylline has been used with a reduction in hepato-renal failure, however it does not help corticosteroid non-responders. Nutritional support is vital for these patients but there is a lack of evidence for sustained benefit from specific antioxidant therapy. Studies of anti-TNF treatments have again failed to demonstrate improved outcome with an excess of sepsis in the treated groups. Overall, corticosteroids probably remain the most effective treatment for alcoholic hepatitis in patients with severe disease (GAHS  $\geq 9$ ), however ultimately this still needs to be tested in a large randomised controlled trial.

Liver transplantation improves outcome from severe alcoholic hepatitis, however patient selection for this is problematic. Long-term abstinence after an admission with alcoholic liver disease is a realistic possibility and is more likely in patients with more severe disease.

## INTESTINAL FAILURE AND NUTRITION

*Dr Simon Gabe*, Consultant Gastroenterologist, St. Mark's Hospital, Harrow, UK

Intestinal failure (IF) can be defined as the reduction of functioning gut mass to below the minimum necessary for the absorption of nutrients and/or water and electrolytes. Three types of IF are now described.<sup>1</sup> The prevalence of type 3 IF is 4.6/million population in the UK with an incidence of 2/million. The prevalence of type 2 IF is estimated at between 9 and 18/million depending on the method used to estimate it. Type 1 IF is much more common as it is self-limiting and occurs after intestinal surgery, for example.

The causes of type 3 IF include short bowel syndrome (e.g. resections and enterocutaneous fistulae), poor intestinal motility (e.g. chronic intestinal pseudo-obstruction) and poor intestinal absorptive capacity (e.g. scleroderma). The management of patients with intestinal failure due to short bowel syndrome is complex, requiring a comprehensive approach that frequently necessitates long-term parenteral nutrition (PN). A short bowel regime is described limiting fluid intake, using an electrolyte mix, high dose antimotility and antisecretory agents as well as a dietary regime. For some patients this can control them but if they have an insufficient residual bowel length (100 cm to a jejunostomy or fistula, or 50 cm to colon) then these patients require parenteral support. The tremendous advances in the provision of PN over the past three decades has resulted in significant improvements in the survival and quality of life of these patients.<sup>2</sup>

Approaches to render patients off parenteral support include re-establishing intestinal continuity, surgical lengthening (Bianchi or STEPS procedure) or intestinal transplantation. Medical approaches with growth factors are currently being trialled.<sup>3</sup>

## References

- 1 Lal S, Teubner A, Shaffer JL. Review article: intestinal failure. *Aliment Pharmacol Ther* 2006; 24:19–31. <http://dx.doi.org/10.1111/j.1365-2036.2006.02941.x>
- 2 Lloyd DA, Vega R, Bassett P et al. Survival and dependence on home parenteral nutrition: experience over a 25-year period in a UK referral centre. *Aliment Pharmacol Ther* 2006; 24:1231–40. <http://dx.doi.org/10.1111/j.1365-2036.2006.03106.x>
- 3 Tee CT, Wallis K, Gabe SM. Emerging treatment options for short bowel syndrome: potential role of teduglutide. *Clin Exp Gastroenterol* 2011; 4:189–96. <http://dx.doi.org/10.2147/CEG.S13906>

## LIVER, PANCREAS AND SMALL INTESTINAL TRANSPLANTATION

*Professor J Andrew Bradley*, Transplant Surgeon, Addenbrooke's Hospital, Cambridge, UK

Liver transplantation is very well established in the UK, with good results and rising demand. Mortality on the waiting list has risen, as the number of liver transplants performed has remained static due to a lack of deceased donor organs. The use of split livers, livers from donation after cardiac death donors and fatty livers have all helped address the problem, but developing an allocation policy that makes optimal use of all donor livers is now a major challenge.

Pancreas transplantation took longer to establish in the UK but improves quality of life and longevity in carefully selected patients with diabetes, and the number of pancreas transplants has risen four-fold over the last decade. While the implications of remaining on the waiting list are less serious for pancreas than for liver transplantation, the shortage of good quality deceased donor pancreas glands for transplantation and an optimal allocation policy for suboptimal organs remain the major problems.

Most recently, UK intestinal transplant programmes for patients with functional or anatomical intestinal failure have been established successfully, with good early results, although long-term outcomes are less satisfactory than for other types of organ transplantation. Transplantation is usually reserved for patients with intestinal failure and life-threatening complications from associated liver disease, catheter related sepsis or loss of vascular access. Depending on the situation, intestinal transplantation alone or multi-visceral transplantation (liver, small bowel and sometimes other viscera such as the pancreas) may be indicated. There is increasing awareness of the potential benefit of this type of transplantation and a major goal is to optimise recipient selection and the timing of transplantation. Such patients pose very considerable challenges for the multidisciplinary team, including the technical difficulty of the surgery and the challenges posed by complex fluid and electrolyte disturbances, graft rejection and sepsis.

## INSULIN PUMPS AND NEWER INSULINS

*Dr Peter Hammond*, Consultant Diabetologist and Endocrinologist, Harrogate Hospital, North Yorkshire, UK

Insulin, injected subcutaneously, is a life-saving treatment for people with type 1 diabetes, but the pharmacokinetics of subcutaneous insulin absorption impose significant limitations on its ability to adequately reproduce the profile of physiological insulin release. The landmark Diabetes Control and Complications trial I demonstrated the effectiveness of intensive insulin therapy in improving

blood glucose control and reducing rates of microvascular complications but at the expense of increasing frequency of severe hypoglycaemia. Since its publication in 1993, the introduction of analogue insulins and developments in insulin pump therapy have helped to better match insulin delivery to the needs of the individual. Basal and bolus insulin analogues have both been shown to reduce frequency of hypoglycaemic events while maintaining similar blood glucose control to regimens using conventional human insulins. Even more rapidly acting bolus and flatter profile basal analogue insulins are in development. However the inability to vary basal insulin delivery limits the potential to improve control without increasing the frequency of hypoglycaemia. This is achievable with insulin pump therapy.

Initially the superiority of insulin pumps resulted from the ability to adjust the rate of insulin delivery on an hourly basis. Meta-analysis of trials of insulin pump therapy have shown that, compared to multiple daily insulin injection regimens, continuous subcutaneous insulin delivery via an insulin pump can reduce HbA1c by 0.72% while at the same time reducing the frequency of severe hypoglycaemia by over fourfold.<sup>2</sup> Further recent refinements include the ability to deliver more complex insulin boluses via the pump and combine it with continuous (interstitial) glucose monitoring, termed sensor-augmented pump therapy, both innovations helping to further fine tune blood glucose control.

## References

- [No authors listed]. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. DCCT Research Group. *N Engl J Med* 1993; 329:977-86. <http://dx.doi.org/10.1056/NEJM199309303291401>
- Pickup JC, Sutton AJ. Severe hypoglycaemia and glycaemic control in type 1 diabetes: meta-analysis of multiple daily insulin injections compared with continuous subcutaneous insulin injection. *Diabet Med* 2008; 25:765-74. <http://dx.doi.org/10.1111/j.1464-5491.2008.02486.x>

## HOW TO INTERPRET THYROID FUNCTION TESTS

*Dr Mark Vanderpump*, Consultant Physician, Royal Free Hampstead NHS Trust, London, UK

UK guidelines for the use of thyroid function tests (TFTs) were published in June 2006 jointly by the Association for Clinical Biochemistry, British Thyroid Association and the British Thyroid Foundation. These guidelines have provided a comprehensive literature review and evidence-based guidelines for the rational use of TFTs for the diagnosis and management of thyroid disorders. They were written to encourage a greater understanding of thyroid function testing among all stakeholders including laboratory personnel, clinicians in primary and secondary care and patients and their carers. In drawing up these guidelines it was clear that there was a lack of high quality evidence in clinical

thyroid disease in the form of randomised controlled trials and meta-analyses. Consequently there was much reliance on second level evidence such as cohort and case-control studies with good practice points often used to plug the gaps where no real evidence existed. Interpretation of TFTs is generally straightforward confirming euthyroidism, hypothyroidism or thyrotoxicosis. However, in some clinical circumstances the results of thyroid hormone (T4 and T3) and thyrotrophin (TSH) measurements either conflict with the clinical picture or form an unusual non-physiological pattern ('weird'). It is important to establish the correct diagnosis to avoid inappropriate management. This lecture will focus on three clinical scenarios including subclinical thyroid disease and the finding of an elevated thyroid hormone together with non-suppressed (inappropriate) TSH levels.

#### References

- 1 Association of Clinical Biochemistry, British Thyroid Association, British Thyroid Foundation. UK guidelines for the use of thyroid function tests [Internet]. London: ACB and BTA; 2006. Available from: <http://www.acb.org.uk/docs/TFTguidelinefinal.pdf>
- 2 Biondi B, Cooper DS. The clinical significance of subclinical thyroid dysfunction. *Endocr Rev* 2008; 29:76-131. <http://dx.doi.org/10.1210/er.2006-0043>
- 3 Gurnell M, Halsall DJ, Chatterjee K. What should be done when thyroid function tests do not make sense? *Clin Endocrinol (Oxf)* 2011; 74:673-8. <http://dx.doi.org/10.1111/j.1365-2265.2011.04023.x>

### ACUTE CEREBROVASCULAR EVENTS: DIAGNOSIS AND EVIDENCE-BASED MANAGEMENT

**Professor Martin Dennis**, Professor of Stroke Medicine, University of Edinburgh, Edinburgh, UK

The last decade has seen a rapid expansion in the evidence base underpinning the management of stroke patients. Professor Dennis will review some of the recent advances in stroke medicine including: use of imaging in diagnosis, thrombolysis, hemicraniectomy, prevention and treatment of post stroke complications including recurrent stroke. He will explore how these are being incorporated into everyday clinical practice in Scotland.

### ACUTE CNS INFECTIONS

**Dr Guy Thwaites**, Clinical Reader in Infectious Diseases and Honorary Consultant in Infectious Diseases and Microbiology, Kings College London/Guy's and St. Thomas's Hospitals

Acute central nervous system (CNS) infections pose a relatively rare but important challenge to the acute physician. The window of opportunity to prevent death or severe neurological sequelae from these infections closes rapidly, and quick decisions are required to determine the likely causative organism, appropriate anti-microbial therapy, and whether adjunctive

corticosteroids might be beneficial. I will highlight the key diagnostic and therapeutic questions with some real-life clinical cases and review the latest literature available to address them.

#### References

- 1 Davies N, Thwaites GE. Infections of the nervous system. *Pract Neurol* 2011; 11:121-31. <http://dx.doi.org/10.1136/jnnp.2011.242214>
- 2 Kimberlin DW. Management of HSV encephalitis in adults and neonates: diagnosis, prognosis and treatment. *Herpes* 2007; 14:11-6.
- 3 Brouwer MC, McIntyre P, de Gans J et al. Corticosteroids for acute bacterial meningitis. *Cochrane Database Syst Rev* 2010; 9:CD004405.

### ACUTE MEDICAL PROBLEMS IN PREGNANCY

**Professor Catherine Nelson-Piercy**, Consultant Obstetric Physician, Guys and St. Thomas' NHS Foundation Trust, London, UK

Medical diseases, either pre-existing or new onset in pregnancy, are now the most common cause of maternal death in the UK. Successive reports of the Confidential Enquiries into maternal deaths have demonstrated no significant fall in the number of these maternal deaths due to 'indirect' causes over the last 20 years. Furthermore, the majority of these deaths are associated with substandard care, and in one-third of cases this is classified as major substandard care, where different care might have prevented death of the mother. This substandard care includes failure to appropriately diagnose, investigate and treat women with new onset chest pain, headache or other medical symptoms. This often arises when well-meaning clinicians prioritise the health of the fetus over that of the mother, withholding essential investigations or drugs, resulting in the demise of both mother and fetus.

Physicians should be familiar with the interaction between pregnancy and medical disease, with the safety of radiological investigations in pregnancy and with the risk/benefit ratio for the use of different drugs in pregnancy. Physicians looking after pregnant women in their clinics, or in the acute medicine setting, need to have the skills to assess the 'common' symptoms of pregnancy including breathlessness, headache, and epigastric pain.

Algorithms for the diagnosis and management of acute medical problems such as acute severe asthma, acute coronary syndrome and headache are little changed compared to the non-pregnant. However there are important adaptations in the investigation and management of acute venous thromboembolic disease and cardiac arrest in pregnancy.

#### References

- 1 Nelson-Piercy C. *Handbook of obstetric medicine*. 4th ed. London: Informa Health Care; 2010.

- 2 Lewis G, editor, Centre for Maternal and Child Enquiries (CMACE). Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer: 2006–2008. The Eighth Report of the Confidential Enquiries into Maternal Deaths in the UK. *BJOG* 2011; 118:supplement 1.
- 3 Nelson-Piercy C, MacKillop L, Williams DJ et al. Maternal mortality in the UK and the need for obstetric physicians. *BMJ* 2011; 343:d4993.
- 3 Nelson-Piercy C, MacKillop L, Williams DJ et al. Maternal mortality in the UK and the need for obstetric physicians. *BMJ* 2011; 343:d4993. <http://dx.doi.org/10.1136/bmj.d4993>

## ACUTE DERMATOLOGY FOR THE GENERAL PHYSICIAN

*Professor Jonathan Rees*, Professor of Dermatology, University of Edinburgh, Edinburgh, UK

It is a truism that if you see a dermatologist at 2am in an acute hospital he or she is more likely to be a patient than attending in a professional capacity. This notwithstanding, there are a number of diagnostic and therapeutic issues that if handled correctly would produce better care at lower cost for these patients when seen by non-dermatologists.

Many patients will fall into one of two groups. The first group is made up of patients who fall into the acute medical sector with an incorrect diagnosis, and possibly an inappropriate admission. Such patients often end up worse off than if they had been able to access their primary care physician, who by and large tends to know more dermatology than an internist. The second group of conditions relates to those numerically rare but high morbidity and high mortality conditions, where the inability to make a proper clinical diagnosis on admission results in clinical care that is suboptimal. As with all binary classifications, there is a third group too!

The purpose of my talk is not to turn general physicians into dermatologists, but to outline a series of heuristics that will allow patients to be safely looked after until the dermatologists have awoken from their slumbers. There is also an irony here: for some patients with skin disease care by an acute physician is what the patients need.

