

A photograph of a nuclear reactor core, showing a dense array of fuel rods. The rods are glowing with a bright orange and yellow light, indicating they are at high temperatures. The background is dark, making the glowing rods stand out.



CEPOD:

Catalyzed

electrochemical

plutonium oxide

dissolution

- 
- How firm is the data?
  - Have the correct conclusions been drawn?
  - Are there alternative conclusions?
- 

# Intrinsic difficulties of the study



- Average of 6.4 patients per month per participating hospital  $\nu$  750 – 900 acute medical admissions per month
- 43% admitted straight form A&E
- Interpretation of notes is subjective; one can only interpret what is written
- The problems of retrospective filling in of forms late at night ..etc...etc

# Pre ICU care



Of the 560 patients who died:

- In 90% the written history was acceptable
- In 87% clinical examination was complete
- In 93% the diagnosis was reached at initial review
- In 73% treatment prompt and appropriate  
(not 58% as stated which included in the denominator those in whom there was insufficient information to comment)


# Pre ICU care – not so good



- Only 8% of those dying were known to be reviewed by a consultant within 3 days of death?
- BUT:
- 42% of the notes do not record who saw the patient - & many of these would have been reviewed by consultant
- 36% reviewed by a SpR
- Was the SHO the scribe while the consultant saw the patient??
- 43% of patients were admitted straight from A&E

The accuracy of the data depends on what is written in the notes


## Pre ICU care - not so good (2)



- Of 40 patients definitely known to be reviewed by consultant only 58% were reviewed in the 24 hrs before death: not good

BUT: is the time of review always recorded?

# Pre ICU care - not so good (3)

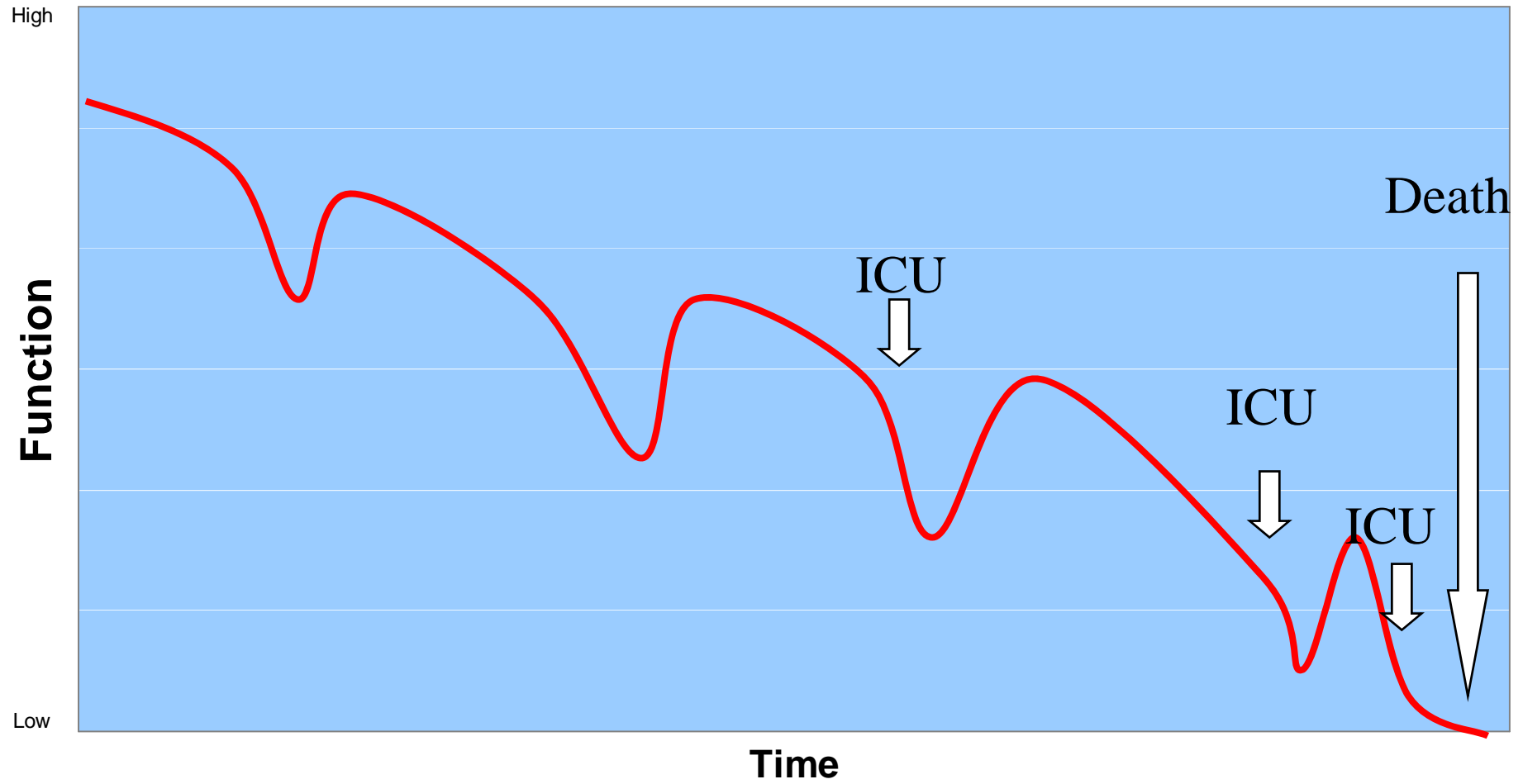


- Average of 3 hour delay between development of physiological instability and referral (?admission) to ICU with some long delays (10% more than 48 hours delay)

BUT: This may not take into account the fluctuating course of many illnesses and some of the criteria for referral (eg agitation or difficulty speaking) may be too strict

# Long-term decline with intermittent exacerbations

(mostly patients with heart and/or lung failure)



## Pre ICU care:



“It is clear from the above that there are problems with the recognition of deteriorating patients and the level of senior input ... Although the data are difficult to collect ...”

# Pre ICU care: Case reports



- Case 1 - diarrhoea and hypotension. Over 24hrs reviewed 5 times by PRHO or SHO with progressive hypotension and acidosis

BUT: what was the diagnosis: ?infectious diarrhoea, ?ischaemic colitis and .. what did the blood/stool cultures show, what antibiotics was he/she on, how much diarrhoea etc .. How much fluid etc etc

# Pre ICU care: Case reports



- Case 2 – Alcohol abuse and pancreatitis followed by confusion and tachypnoea and death
- Main problem: No attempt to formulate a working diagnosis by the SpR: this is the key problem rather than delayed referral to outreach team. If no diagnosis can be made senior help should be called. It was not. That is what was wrong.

# Pre ICU : Recommendations



- Highlight emergency medicine – yes
- Newly admitted patients should be reviewed by a consultant physician within 24 hours - no 12 hourly
- No other clinical commitments? Yes but - one size does not fit all

# Pre ICU : Recommendations (2)



- Pay more attention to patients exhibiting physiological abnormalities - yes
- Call for senior help if fail to make a diagnosis in an ill patient - yes always

Set standards but leave it to trusts to decide how to achieve them

# Pre ICU care: The acute physician



- The benefits of this model are considerable

But for the patient: this is another step in their journey

- For the “acute physician”: it may be difficult to follow the natural history of diseases
- For the “ologist”: there are real dangers of isolation, and erosion of the holistic approach and movement towards a system rather than symptom based approach

# Pre ICU care: The acute physician



- The “ologist” will still need to be on call, but less often and so will need to work harder to remain skilled in the management of unselected medical take

(The Acute Physician would not have helped Case 1 who would no longer have been under his/her care, nor Case 2 who not have been under their care in the first place)

# Recommendations

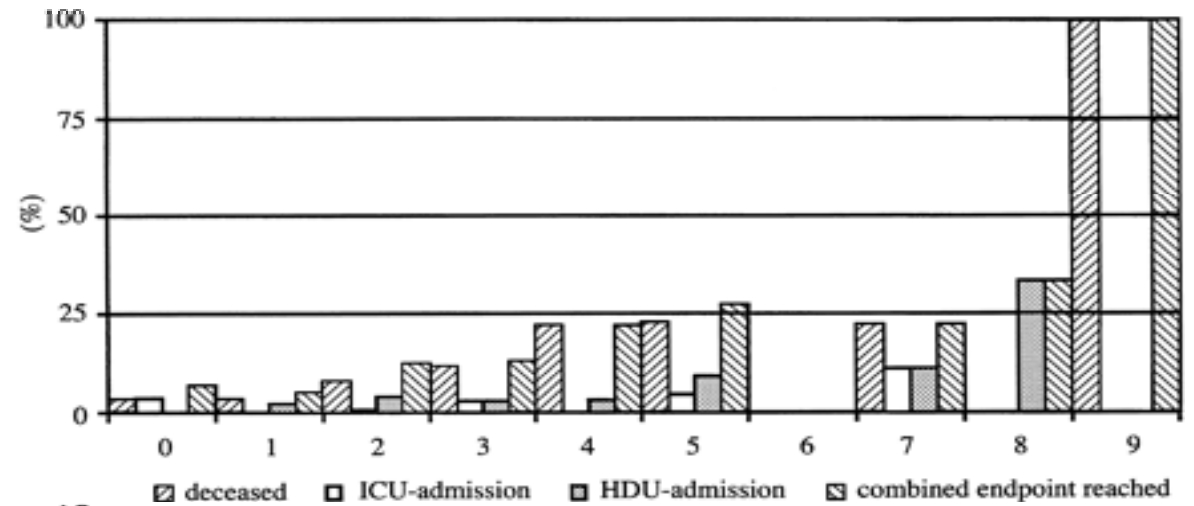
## Pre ICU care:



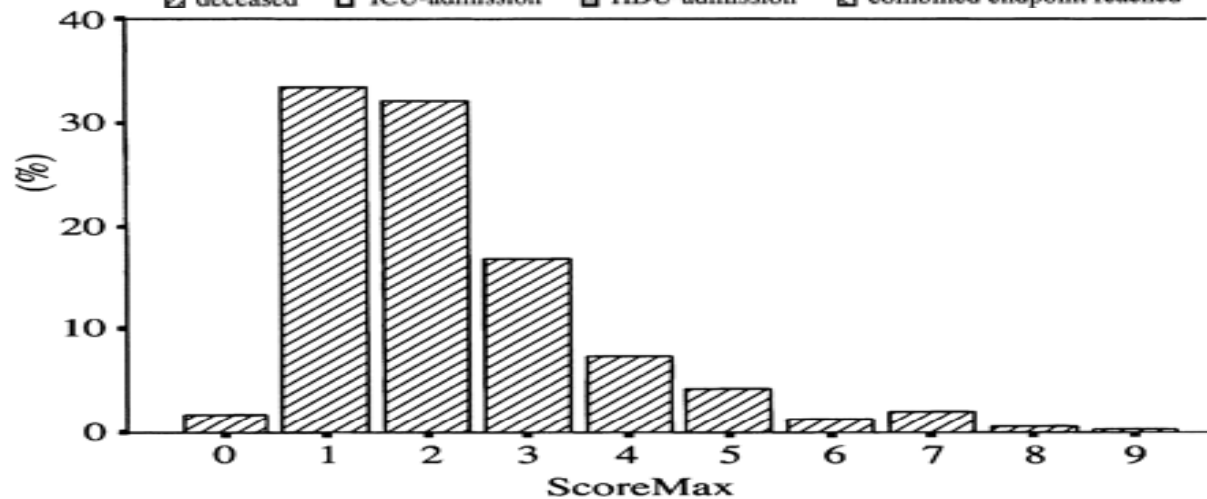
- All patients must be seen by a consultant within 12 hours of admission
- Different hospitals will find different ways of achieving this
- Doctors must respond to patients with changing physiological abnormalities


# “Modified Early Warning Score” (BP,P,RR,Mental state) in medical admissions

Outcome associated with different scores




Frequency of different scores





Care and attention should be paid to all patients, not just those with a high early warning score.

We should look at trends as well as absolute scores of physiological parameters







# Patient observations and review criteria



- Detail the observations in all patients - yes
- Track and trigger parameters - yes but difficult and so many “ifs and buts”
- Measure and plot respiratory rate - yes

# Referral process 1



- Can we be sure who referred the patient?
- Should I be woken at 3.00am to be informed of a patient who has taken an overdose who needs admitting to ICU for ventilating?
- I *would* wish to be informed of the COPD case - (and so presumably would the ICU consultant) but would we have done differently? - and in only 2 hours between admission and death?

# Referral process 2



- 23% reviewed by outreach service before admission
- 82% of patients were reviewed by ICU service  
“a surprisingly low figure” with delay in review after request in only 5% of cases :  
? Audit standard

# Referral process 3



- In 162 cases (16% of total) there was a delay between referral and admission to ICU
- Question: "did delay affect outcome?"  
Answer : "No" 99%    "Yes" 1%

"The lack of perceived impact of delayed critical care review and admission is therefore surprising and may reflect poor expectation of a critical service that has been for years underprovided"

# Recommendations

## Referral process



- Consultant physicians (and intensivists) should be more involved in the referral of patients under their care to ICU - we all agree
- “any delay in admission to ICU should be recorded as a critical incident” ... yes but only if the delay affects outcome - which this study shows was not the case in 99% of cases
- It is inappropriate for referral and acceptance to ICU to happen at junior level - OK .. but ...

# ICU admission process 1



- More patients are not accepted by a consultant if admitted during the night ... but a greater % of these patients survive
- 25% had not been reviewed by a consultant by 12 hours after admission  
“..timely review by an ICU consultant is the best that can be delivered in the current model of care”

# Patients who died (2)



- Case study 1: pneumococcal septicaemia: how many minutes after admission were intravenous antibiotics started?

# Patients who died (3)



- Case study 2 agitated overdose but no diagnosis, rapid deterioration over 3 hours during which time no consultant input - but what is the diagnosis? What would I have done differently?
- Case 3 Colonic perforation. No consultant intake for 5/7 oh dear - but what was the colonic biopsy for? What was their premorbid condition, what was the biopsy result?

# Recommendations

## Patients who died



- Better education of junior doctors, but 5 years at medical school, ALERT and ALS courses and now MMC classroom teaching  
“his patients should be his book”  
Paracelsus 1493 - 1541

# Outreach



- Alan Milburn 2003 “we should see outreach services developing in every hospital”

Yes but:

- not at the expense of ITU nurses or beds...
- ...nor at the expense of nurses on busy over-stretched medical wards and MAUs.

# Outreach (2)



- Are we addressing the right problem?
- Is the problem insufficient staffing of medical wards rather than lack of an outreach service?
- In this study the presence of outreach services did not influence the appropriateness or timeliness of admission to ICU
- We await the Intensive Care National Audit and Research Centre study of outreach services in 2007

# Quality of medical records and audit 1



- We are bad at writing bleep numbers and grade in patients' notes ..Yes Yes
- DNR: in 89% of cases there is no record of resuscitation status in patients notes .. but if you are admitted to ICU you almost certainly will be for CPR
- Should DNR decisions be discussed with patients... ?
- Audit meetings - and case presentations - yes more

# Main recommendations



- There should be a consultant ward round of all newly admitted patients at least 12 hourly
- The admitting physician should where possible continue to care for their patients
- Team based firms should be preserved where possible
- Patient's observations should be carefully and accurately recorded looking for trends
- Ill patients should be seen every day by their consultant ...




... these must be our objectives even in the face of

“Modernising Medical Careers”

The European Working Time Directive

The Consultant Contract

and the prevailing ethos that moves us away from  
a personal responsibility of care for each and  
every patient for whom we have responsibility



Thank you for  
listening



# An Acute Problem?

NCEPOD

# Paul F Jenkins

Consultant in Acute Medicine,  
Norfolk and Norwich University  
Hospital

President of the Society for Acute  
Medicine UK

The background consists of several thick, wavy, overlapping bands of dark purple and black, creating a sense of movement and depth. The bands are irregular in shape and flow across the frame, with some crossing each other.

SAMUK



# The Sub-Specialty of Acute Medicine

# “An Acute Problem”

Interpretation of the data

# Interpretation of the data 1.

- Complete data obtained in 1154 (68%) of 1677 cases
- i.e. 7.4 patients per participating Hospital throughout the 1 month trial period
- Average medical intake in England and Wales is now 40 Patients in 24 hours
- Proportion of medical patients requiring intensive care is small (0.6%)

## Interpretation of the data 2.

- “10% of the patients had incompletely recorded histories and/or physical examination” but...
- 43% patients were referred direct from A&E departments
- It could be that an appropriate emphasis was placed on physiological assessment rather than a detailed history
- May explain lack of consultant physician review before ICU admission

## Interpretation of the data 3. (standard of pre-ICU care)

- 90% had an acceptable history
- 87% had a complete clinical examination at 1<sup>st</sup> contact
- 93% had a diagnosis at initial review
- 90% had a correct diagnosis
- 87% had an initial treatment plan and this was followed in 96%
- Treatment deemed prompt and appropriate in 58% (should read 74%)

# SAMUK

Welcomes NCEPOD involvement in acute  
medicine,

Recognises the need for organisational change  
and

Appreciates support for the role of the Acute  
Physician.

However, correction of errors should involve a  
'no blame culture'. The failure is usually in the  
system, not the individual.

## In particular.....

- Ensuring that Junior Clinicians achieve competency in dealing with the unstable patient: MMC, IMPACT and ALERT courses
- Adequate and informed documentation of physiological parameters
- The importance of recognising changes in these and responding to them
- Senior support and supervision essential

# The Acute Medical Unit

- Is focussed to the recognition and treatment of the acutely ill patient
- Is not just about triage
- Resources and skill mix can be audited
- Team-working is facilitated
- The multi-professional approach can be engendered

# Future Development

- Integrated Front-door and Critical Care Services.. “Streaming”, not Departments
- Banish traditional specialty boundaries in the care of the critically ill
- Develop a breed of ‘Urgent-Care’ Clinicians.....to support...
- .....a Hospital-wide service

# The Acute Physician: Training

- Current SpR Training Programmes
- Urgent need for more trainees.....this means appropriate 'numbers' with associated funding

*Interest among Junior Clinicians is growing*

# The Acute Physician: Role and Rota

- Direct supervision of junior medical and nursing staff: *this offers an ideal training opportunity*
- Early senior review of all presenting patients, not just the critically sick
- Appropriate management planning
- Timely (and cost-effective) investigation and treatment

# The Acute Physician: Role and Rota

- The concept of ‘senior’ support
- The necessity for sustainable working patterns and therefore...
- ... ‘shift work’
- An opportunity for flexible and part-time working

## However,

- One pattern will not fit all
- The successful introduction of Acute Physicians will take time
- The acute role of the Specialist Physician remains vital and *their enormous contribution to the Acute Intake must be recognised*

# Professional Interfaces

- Acute Medicine
- “Specialist” Medicine
- Intensive Care Medicine
- A&E Medicine
- Surgical specialties

# In Summary

- This report offers valuable information
- There is an urgent need for organisational change
- There are training and resource issues
- There is a wonderful opportunity to change the way we care for the critically ill...for the better
- Traditional Specialty 'boundaries' should be challenged with competency being the fundamental principle

## NCEPOD, 'An acute problem'

- Should be congratulated on addressing this issue
- There are questions to be answered
- Future development must embrace a 'No-blame, learning culture'

We all want the same thing:

**Premier Quality Care for Patients**