

INTENSIVE CARE: The last 25 years A personal view

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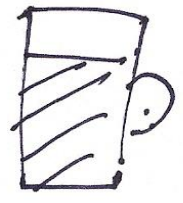
Scottish Intensive Care Society
Annual Scientific Meeting 2011

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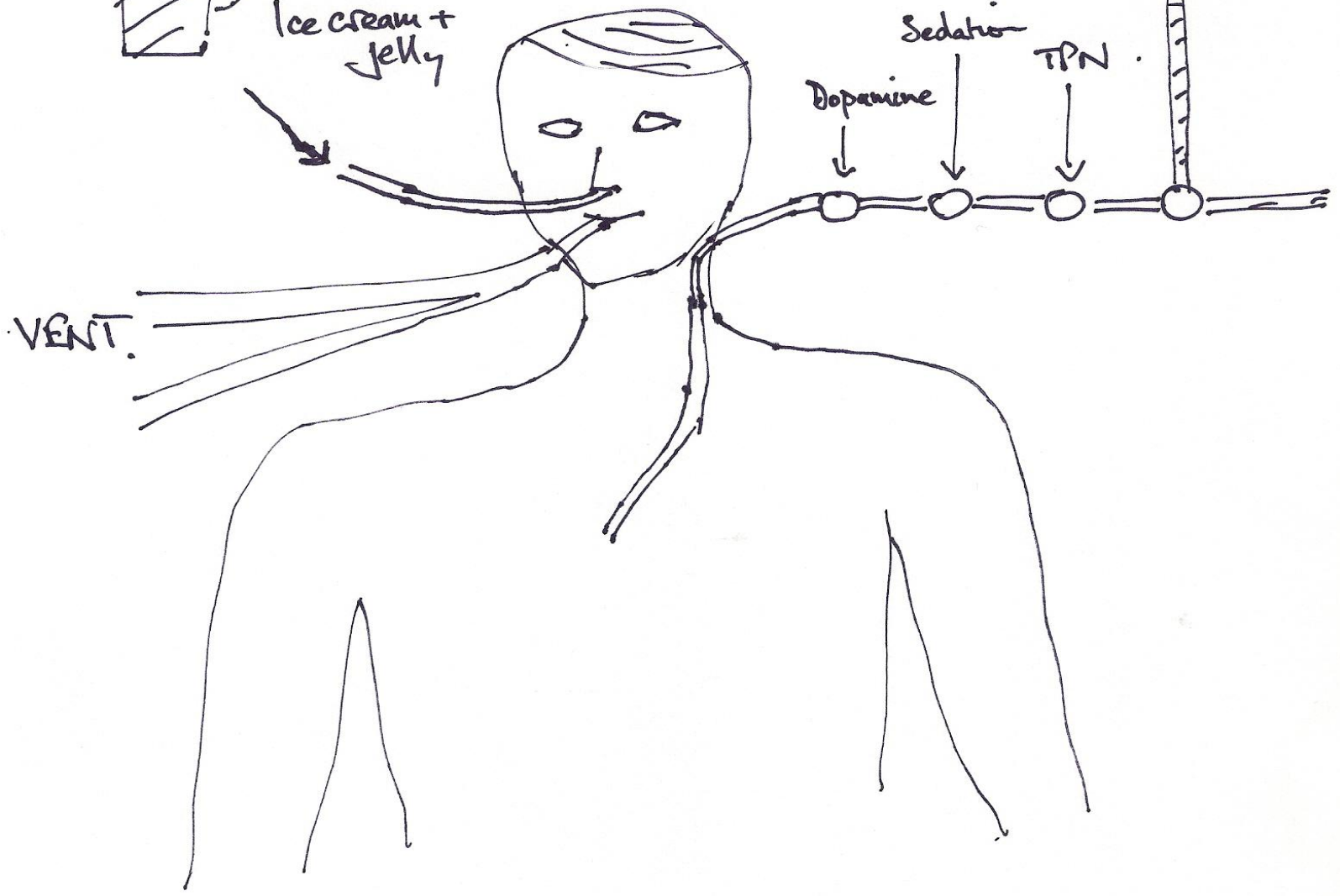
JANUARY 1985

- Consultant, Ninewells Hospital, Dundee
- 7 bedded ICU; 300+ admissions
- One of four consultants
- 1:2 rota for trainees; 24 hr shifts for 2 weeks
- 4 nurses per bed
- Ventilators: mainly Brompton Manleys, one or two Servo 900s
- Monitoring: S & W Modular
- Single lumen central lines; Dedicated Nutricath feeding lines
- One or two pulse oximeters; no end-tidal CO2 monitors
- Renal replacement by intermittent dialysis
- Cardiac output measurement by PA catheter

Liquidizer



Soup
Mince + tatties
Ice cream +
Jelly



VENT.

Dopamine

Sedation

TPN

CVP

GOING BACK

COPENHAGEN POLIOMYELITIS EPIDEMIC, 1952: THE BEGINNING OF INTENSIVE CARE

- 866 polio patients with paralysis
- 316 with respiratory failure
- 50-70 at a time
- Only 7 neg press ventilators
- Tracheostomy; cuffed tube
- Manual bag ventilation
- 8 hr shifts
- 47% mortality (previous mortality 80-90%)

THE LANCET]

SPECIAL

Special Articles

A PRELIMINARY REPORT ON THE 1952 EPIDEMIC OF POLIOMYELITIS IN COPENHAGEN

WITH SPECIAL REFERENCE TO THE TREATMENT
OF ACUTE RESPIRATORY INSUFFICIENCY

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THE 1952 epidemic of poliomyelitis in Greater Copen-
hagen has been the largest and most severe local epidemic
ever recorded in Denmark.

1950s and 60s

VENTILATION IN THE 50s and 60s

- Neuromuscular disease
 - poliomyelitis
 - Guillain-Barre syndr
- Closed chest injuries
- Post-operative
 - Cardio-thoracic surgery
 - Aortic aneurysm
- Invasive PPV replaced NPV
- Establishment of assisted ventilation units

OUTCOME FROM CHEST INJURIES 1955-65, RIE

- 1955- 60
- 38 cases
- 9 survivors (24%)
- 1961- 65
- 64 cases
- 54 survivors (84%)

Griffiths, JRCSE 1960

Bargh, BMJ 1967

1960s

- Ward 19, AVU, Royal Infirmary, Edinburgh opened
- ICUs in Glasgow Royal and Western Infirmaries
- ICUs open across UK, mostly late 60s, 1970
- Era of “local heroes”:

Mike Telfer, Iain Ledingham, Jo Stoddart, Denis Copell, Tony Gilbertson, Doreen Browne, Gillian Hanson, Alan Gilston

- Intensive Care Society founded 1970

PERSONAL STORY

- 1972: HO, RIE
- 50yo man (EA) presenting with progressive weakness
- LP: High protein, few cells. Suspected Guillain-Barre syndrome
- Type II respiratory failure, progressing to respiratory arrest
- Referral to Ward 19: No beds
- Intubation, Ventilation on Ward 22....thanks to A.Norbury
- Subsequent management: Transfer to NGH
- 3 months later: Weaned patient sent to neurology ward

STOBHILL GENERAL HOSPITAL, 1973

- ICU just opened
- Open access unit; no direct anaesthetic involvement
- Case 1: Aspiration caused by over-sedation by chlormethiazole infusion for DTs.
 - Arrest call, Intubation, Ventilation
 - Ask anaesthetists about sedation: boluses of phenoperidine and pancuronium
- Case 2: Malaria with septic shock and MOF
 - Ventilation
 - Dopamine
 - Peritoneal dialysis

STOBHILL then WESTERN INFIRMARY

- Case 3: Phenformin induced lactic acidosis:
 - PD with acetate-buffered haemodialysis fluid
- Want to do ICM: Only practical way: become an anaesthetist
- Western or Royal? Wife knew Gerry Mone
- 3 months ICU in 1st 3 years of training
- No specific ICU training
- Anaesthetic training very physiology-based rather than medical-based....causes of hypoxaemia
- Weekly Grand ward round: Ledingham v Finlay. Umpires: Mone and Wallace
- Shock team: Critical care transfers
 - SDD
 - Etomidate story

DUNDEE

- Committed Intensivists
- Improving technology
- Data collection
- Need for education, research and audit
- Discussion about forming SICS
- Perth meeting organised by Alf Shearer in 1988
- Transfer trolley
- Pharmacology research
- PA catheters
- SCARRF meeting:
Dundee outcomes best
- Attempts at CAVH

WGH EDINBURGH

- 1st fully fledged general ICU in Edinburgh (1988!)
- ICS Exeter 1987: Free paper session
 - Inotropes ,Vasopressors, Oxygen transport
 - Haemofiltration (in bar)
- Not enough work; transfers to WGH to generate trade
- Advanced invasive haemodynamic monitoring
- Observational research
- High volume Venovenous Haemofiltration
- LATER: Percutaneous tracheostomies...Inhaled NO....NIV...Neuro-ICU.....Long-term ventilation

THE UK PERSPECTIVE

- 1970: UK Intensive Care Society formed. At that time ICM very different in London compared with rest of country.
- 1980s: Concern expressed about quality of intensive care in the UK
- Late 1980s: UK APACHE II study to address quality of care
- 1988: Joint Committee for Intensive Therapy (JACIT) formed at behest of Royal Colleges.
- JACIT SR posts established. John Kinsella 1st in Scotland
- 1994: ICNARC formed by ICS to foster audit and research
- 1996: General dissatisfaction amongst 'intensivists' about lack of progress in furthering intensive care. Many anaesthetists pleased about lack of progress.

SCOTLAND AND SICS

1988: 1st Perth meeting. Half day Friday

1991: Scottish Intensive Care Society formed

Annual meetings

National audit (JCH)

Trainee courses

Research committee and meeting

- leading to Clinical Trials Group

Evidence based Medicine Group

Education Group

Advice on many issues: Transport, transplant etc

UK –the 90s

- RCoA walks out of JACIT which collapses
- Intercollegiate Committee on Intensive Therapy (ICIT) formed with 50% RCoA representation
- RCoA unwilling to recognise ICM; refuses faculty status as ICM is integral part of Anaesthesia

1995 QUESTIONNAIRE OF ICS CONSULTANT MEMBERS

- 58% RESPONSE; ONLY 2 whole-time intensivists
- 24% wanted formal specialty status and 76% sub-specialty status
- 78% wanted a Faculty of ICM (IC 58%, RCoA 19%)
- 12% wanted Royal College of ICM
- 8% wanted no change
- 79% wanted a Diploma exam (44%:European will do)
- 76% wanted 2+ years of dedicated ICM training before accreditation.

LATE 90s

- ICIT becomes IBTICM
- Framework for competency-based training in ICM established: Step 1 and Step 2
- 1998: Local (Regional) advisers appointed
- 1998: 1st sitting of Diploma of Intensive Care Medicine
- 1999: DoH approval of ICM specialty CCT
- 1999: 1st Edinburgh trainees: T Walsh, B Phillips
- 1st successful Scottish Diplomat in ICM: K Kelly

TO THE PRESENT: The last 10 years

- Initial lack of candidates for ICM SpR posts and DICM
- Now resolved
- Steady development under Board of Training, Assessment, Examination
- Movement to Intercollegiate Faculty (Achieved)
- Academic ICM advances: 4 Professors in Scotland
Multicentre RCTs: SIGNET
- Organisation of ICM finally catches up with the rest of the developed world! ICUs and HDUs co-located and amalgamate as Critical Care Units

CONCLUSIONS

- Huge progression of Intensive Care over 25 years
- Recognition as a Specialty with Specialists
- Formalized training
- Audit of performance
- Multi-centre clinical research
- ‘Evidence’ available on which to base ‘Guidelines’
- BUT are we too rigid in our ‘evidence’ and ‘guidelines’?
- Is our management individualized?

RESEARCH AND OTHER ISSUES

- Evidence from some trials NOT accepted or implemented....inconvenient
- Evidence from others accepted and implemented without due consideration
- Evidence not infrequently misrepresented
- Observational research disregarded and not published
- Physiological facts and logic disregarded
- Experience and judgement not valued
- Remember we are dealing with individuals NOT populations

MORE...

- Clinical trials are often based on:
- Inadequate observation
- Have too loose inclusion criteria....to get numbers
- Have too tight exclusion criteria....don't include our everyday patients
- Wrong dose or duration
- Wrong end-points/outcome measures
- Easy to come away with all the wrong conclusions

MORE.....

- SDD
- Steroids in shock and ARDS
- Connors...on PA catheters
- Nutrition
- Centoxin
- Xigris
- Dopamine
- Tight glycaemic control
- GBS
- ECMO.....etc etc
- New treatments accepted too easily; discarded too easily

FINALLY....

- Intensive Care is 'miles better' than when I started
- We must be careful with it
- Don't allow conventional wisdom to go unchallenged
- Don't shut out lateral thinking
- Remain helpful, open to people and ideas, and inclusive
- Remember we are treating individuals, whose condition may fluctuate necessitating adjustments to the treatment plan

HAMPDEN PARK 2010, 18 years after ICU admission in Type II respiratory failure

