“Coming from Behind! Respiratory Therapy Then and Now.”

BY: DR. JUDAH SKOLNICK
1. Elisha-Kings 2
   4:32 – 35
   First Recorded CPR
2. 6000 BC – 350 BC

- Introduction of Aromatherapy
- Egypt (3150 – 2925 BC) Tracheostomy
- China (2600 BC) Inhalation therapy for asthma
- Egypt (2400 BC) TB in mummies. Potts disease
- India (2000 BC) Inhalation therapy
- Aristotle (350 BC) first recorded experiment in respiratory physiology
3. 100 AD – 1800 AD

Maimonides (1119) “A treatise on Asthma”
Lu Llius (1275 AD) ETHER
William Harvey (1600s AD) Heart and Circulatory System
Joseph Priestley (1775 AD) discovers O2
Antoine Lauroisier (1775 AD) Principles of breathing- names oxygen
1800s AD- Atomizers and nebulizers developed in France
Thomas Beddoes (1800 AD) Inhalation treatment with O2 for asthma and heart disease
4. 1800 AD – Present

   Alfred F. Jones (1864 AD) earliest enclosing iron lung in Lexington Ky.
   
   Albert Blodgett (1891 AD) 6LO2 administered
   
   1900s AD- Combustible powders and cigarettes with stramonium in asthma
   
   Rudolf Eisenmenger (1906 AD) portable respirator
   
   Jack Emerson (1906 AD) positive pressure breathing decreases pulmonary edema
   
   1907 AD- Linde Air Products Co. founded – industrial O2 regulator developed
4. Continued

Stokes (1917 AD) rubber nasal catheter and nasal prongs O₂ for pulmonary edema

J.J. Meltzer (1917 AD) IPPB

John Haldane (1917 AD) O₂ mask

Leonard Hill (1920 AD) first O₂ tent

Alvan Barach (1920 – 1928 AD) studies O₂ therapy with ABG; uses O₂ therapeutically

Max Soroka – heads first O₂ department

Linde (1928 AD) O₂ regulator 1 – 15 LPM

Drinker & Shaw (1927 AD) first iron lung to receive widespread use

Parke Davis (1930 AD) hand bulb nebulizer
4. Continued

Jack Emerson (1930 AD) Infant iron lung
Alvan Barach (1931 AD) O2 in CHF
Linde (1933 AD) Commercial medical-grade O2 G cyclinder

Alvan Barach (1934 – 1948 AD) pursed lip breathing in COPD; IPPB for pulmonary edema; O2 flow nebulizer therapy; exsufflator to stimulate coughing
Linde (1930s) production and delivery of bulk liquid O2

British O2 CO (1935) O2 piping system to hospitals
4. Continued

Luble & Hall (1936) cuirass respirator
Boothby et al. (1938) mask for 100% O2
1940s – Early electric compressor nebulizer
1947 – IPPB machines in hospitals
1948 – Monaghan Ventalung respirator
1952 – Engstrom Volume respirator
Forrest Bird (1955) Bird Mark 7 respirator
1955 – Bennett TV – 2P respirator
1956 – Riker Labs – first pressurized MDI for Epinephrine and Isoproterenol
4. Continued

Peter Safar & James Elan (1956) mouth – to – mouth resuscitation

*I begin my journey*

1960s – Beta – agonist short – acting bronchodilators for asthma

1960 – Dr. Jude et.al – today’s CPR

James Hardy (1965) research on portable liquid O2

Borema et.al (1965) Hyperbaric O2 in clinical medicine
4. Continued

1975 – Infant CPAP; CPAP for OSA
1980 – Nott trial
1980s – High frequency ventilation
1982 – improved selective B2 agonist bronchodilator

Kent Christopher (1982) transtracheal O2
1985 – Pulmonary Rehab
5. My Experience

Medical school: 1961 – 1965
Internship: 1965 – 1966
Residency in Internal Medicine: 1966 – 1969
Pulmonary Fellowship: 1969 - 1971
Inhalation Treatments:

- IPPB
- Bulb and Compressor handheld nebulizer
- Pump and Compressor nebulizers
- MDIS
- Cough Devices – Vest Incentive Spirometry
O2 Therapy:

- Tents
- Catheter
- Nasal Prongs
- O2 Masks
  - Simple Mask
  - Non-rebreather
  - Venti-masks
  - 100% O2 mask
Ventilators:

- Bird – Modified with Puritan Bennett Expiratory Spirometer
- Moerch Ventilator
- Air Shields
- Ohio 560
- Bennett MA-1, MA-2, and recent generations
- Emerson
- Engstrom
Ventilators Continued:

- Non-invasive ventilation
- High Frequency Experience
  - VDR – Bird – high frequency percussion
  - IPV – Bird
- Liquid Ventilation
Polio Experience:
- Iron Lung
- Cuirass Shield
- Exsufflator

Pulmonary Rehab:
- Outcomes Study
- Hyperbaric O2
6. Respiratory Therapy: Evolution from Broom Closet to Current Status
   changes in title
   Training
   Scope of practice
   Therapist driven protocols