

# "Pediatric Aero-Digestive Disorders in the New Century"

A Valley-Mount Sinai Kravis Children's Hospital educational symposium.



CHILDREN'S HEALTH



# What's Cooking under the Vocal Cords in the Coughing Kid?

Alvin (Didi) Vicencio MD

Professor of Pediatrics

Director, Pediatric Pulmonary Medicine

# Disclosures

- Consultant for Ambu, Inc

# Faculty Disclosure

There are no commercial products or services being discussed

No financial disclosures

No unlabeled use of a product is being discussed

**"Everyone has a plan 'till they  
get punched in the mouth." -  
Mike Tyson**



Resilience – Improvisation – Persistence



Pediatric Advanced Diagnostic and  
Interventional Bronchoscopy



This is the most distressing paper I have heard in my entire life. Flexible bronchoscopy is nothing but medical voyeurism. Doing this in children is the grossest of medical malpractice.

- Response to Dr. Wood's initial publication on pediatric flexible bronchoscopy

# What is it?



## American Association for Bronchology and Interventional Pulmonology

445 Minnesota/ Suite 1500  
St. Paul, MN 55101

Phone • (651) 256-9506  
[info@aabronchology.org](mailto:info@aabronchology.org)  
[www.aabronchology.org](http://www.aabronchology.org)

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TO: Thomas Nasca, MD, MACP  
President and Chief Executive Officer, ACGME

FROM: George Eapen, MD  
President, American Association for Bronchology and Interventional  
Pulmonology

Neeraj Desai, MD  
President, Association of Interventional Pulmonology Program Directors

DATE: October 15, 2021


SUBJECT: Proposal for ACGME Recognition of a New Sub-specialty in  
Interventional Pulmonary Medicine

Enclosed is a joint proposal from the American Association for Bronchology and Interventional Pulmonology (AABIP) and Association of Interventional Pulmonology Program Directors (AIPPD) requesting approval from the ACGME Board of Directors to accredit a sub-specialty fellowship in Interventional Pulmonary Medicine under the parent specialty of adult pulmonary medicine.

Interventional pulmonology is a subspecialty that focuses on the evaluation and management of thoracic diseases primarily involving the airways, lung parenchyma, and pleural space with a focus on minimally-invasive diagnostic and therapeutic procedural skills beyond the scope of adult pulmonary medicine fellowship requirements. Currently, interventional pulmonology fellowships provide advanced training for 12 months after completion of a standard fellowship in pulmonary medicine to allow a fellow to acquire competency in the sub-specialty with sufficient expertise to act as an independent consultant and expert provider of advanced diagnostic and therapeutic interventional bronchoscopic and pleural procedures. Since 2016, interventional pulmonology fellowship programs have been accredited according to a standard created jointly by the major pulmonary medical societies: AABIP, AIPPD, American Thoracic Society (ATS), American College of Chest Physicians (ACCP), and Association of Pulmonary and Critical Care Medicine Program Directors (APCCMPD).



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# What is it?

- Routine adult procedural training
  - Flexible bronchoscopy
  - Lavage
  - Brush biopsy
  - Endobronchial biopsy
  - Transbronchial biopsy
  - Needle aspiration
- Critical care procedures
  - Chest tubes, lines, intubation, etc.
- Interventional pulmonology
  - Navigational bronchoscopy
    - EBUS
    - Electromagnetic navigation
    - Cone beam CT
    - Robotic
  - Advanced therapeutic procedures
    - Laser, APC, cryo...
    - Stents
  - Rigid bronchoscopy
  - Pleural disease including VATS

# What is it?



## PEDIATRIC PULMONOLOGY

Original Article | Full Access

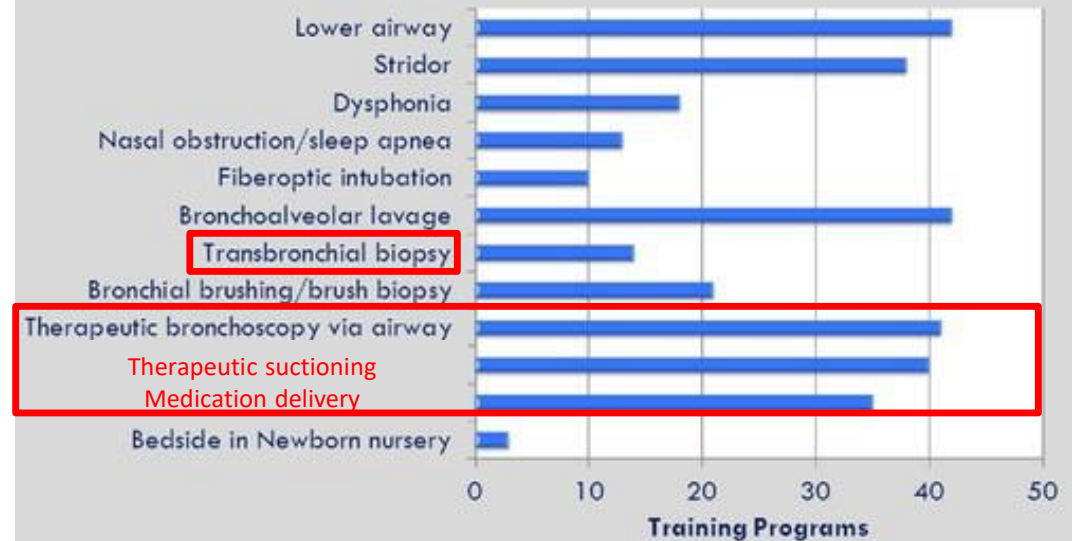
### A survey of training in pediatric flexible bronchoscopy

A.B. Leong MD , C.G. Green MD, G. Kurland MD, R.E. Wood PhD, MD

First published: 05 September 2013 | <https://doi.org/10.1002/ppul.22872> | Citations: 12

Conflict of interest: None.

### Types of Flexible Airway Endoscopies Performed by Fellows



# What is it?


ERS OFFICIAL DOCUMENT  
ERS STATEMENT

## ERS statement: interventional bronchoscopy in children

Ernst Eber<sup>1</sup>, Juan L. Antón-Pacheco<sup>2</sup>, Jacques de Blic<sup>3</sup>, Iolo Doull<sup>4</sup>, Al Faro<sup>5</sup>, Raffaella Nenna<sup>6</sup>, Thomas Nicolai<sup>7</sup>, Petr Pohunek<sup>8</sup>, Kostas N. Priftis<sup>9</sup>, Paola Serio<sup>10</sup>, Courtney Coleman<sup>11</sup>, Sarah Masefield<sup>11</sup>, Thomy Tonia<sup>12</sup> and Fabio Midulla<sup>6</sup>

**Affiliations:** <sup>1</sup>Division of Paediatric Pulmonology and Allergology, Dept of Paediatrics and Adolescent Medicine, Medical University of Graz, Graz, Austria. <sup>2</sup>Paediatric Airway Unit and Paediatric Surgery Division, Hospital Universitario 12 de Octubre, Universidad Complutense de Madrid, Madrid, Spain. <sup>3</sup>Assistance Publique Hôpitaux de Paris, Hôpital Universitaire Necker-Enfants Malades, Paediatric Pulmonary Dept, Université Paris Descartes, Paris, France. <sup>4</sup>Dept of Paediatric Respiratory Medicine, Children's Hospital for Wales, Cardiff, UK. <sup>5</sup>Cystic Fibrosis Foundation, Bethesda, MD, USA. <sup>6</sup>Dept of Paediatrics, "Sapienza" University of Rome, Rome, Italy. <sup>7</sup>University Children's Hospital, Ludwig Maximilians University Munich, Munich, Germany. <sup>8</sup>Paediatric Dept, 2nd Faculty of Medicine, Charles University and Motol University Hospital, Prague, Czech Republic. <sup>9</sup>3rd Dept of Paediatrics, University General Hospital Attikon, National and Kapodistrian University of Athens, Athens, Greece. <sup>10</sup>Dept of Paediatric Anaesthesia and Intensive Care, Meyer Children Hospital, Respiratory Endoscopy Unit, Florence, Italy. <sup>11</sup>European Lung Foundation, Sheffield, UK. <sup>12</sup>Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland.

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E-mail: midulla@uniroma1.it

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**Interventional bronchoscopy in children: evidence at present, clinical practice and areas for further investigation** <http://ow.ly/Z7Rv30fuPV6>

**Cite this article as:** Eber E, Antón-Pacheco JL, de Blic J, et al. ERS statement: interventional bronchoscopy in children. *Eur Respir J* 2017; 50: 1700901 [<https://doi.org/10.1183/13993003.00901-2017>].

- Whole lung lavage
- Transbronchial and endobronchial biopsy
- Transbronchial needle aspiration and endobronchial ultrasound
- Foreign body extraction
- Balloon dilation and occlusion
- Laser-assisted procedures
- Airway stents
- Cryotherapy
- Endoscopic intubation
- TEF repair
- Bronchopleural fistula repair
- Atelectasis treatment
- Plastic bronchitis treatment
- Hemoptysis control

# What is it?

Adult = Well-defined indications/conditions +  
advanced procedural training + dedicated  
equipment

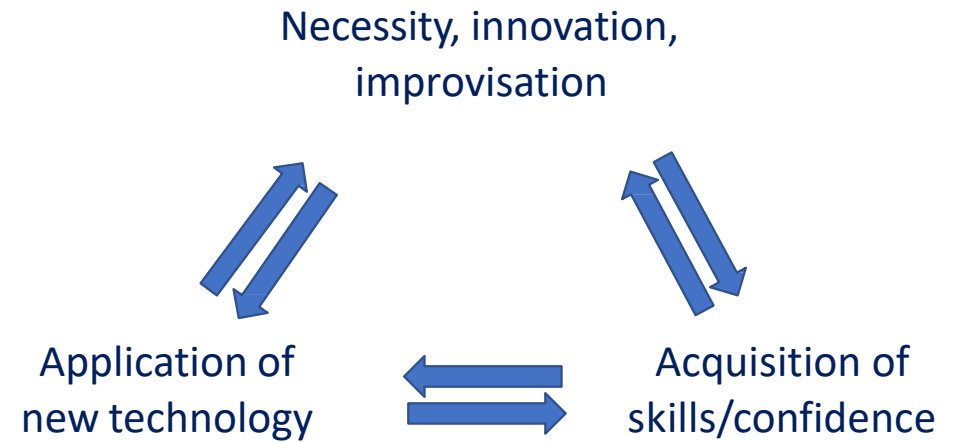
Pediatric = A bunch of rare conditions + relative  
lack of procedural training + lack of dedicated  
equipment



# How did it evolve (for me)?



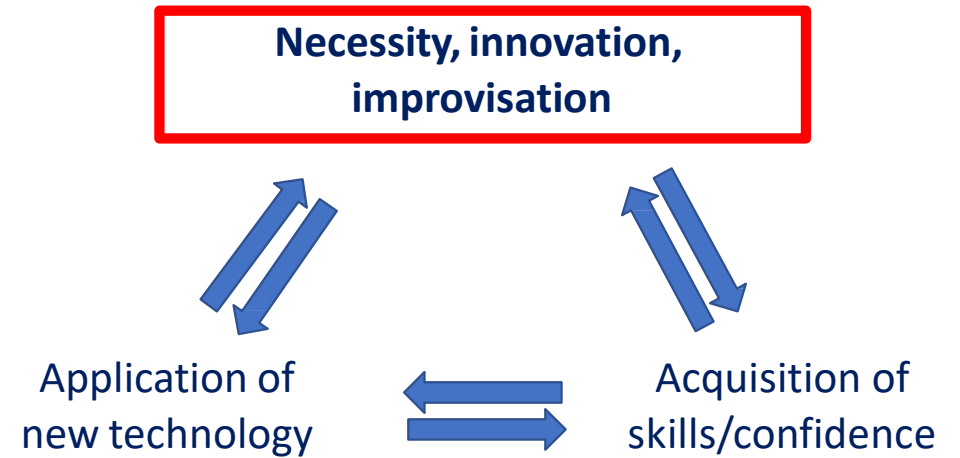
Sanjay Parikh, ENT



# How did it evolve (for me)?

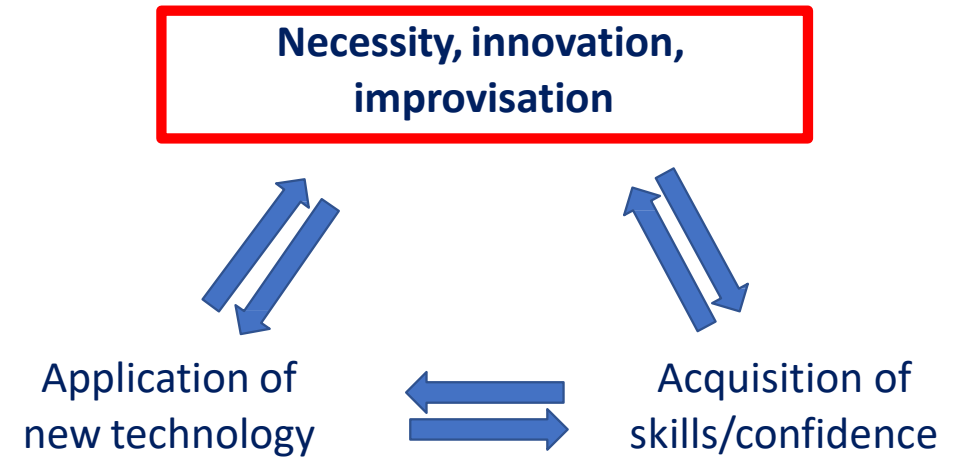
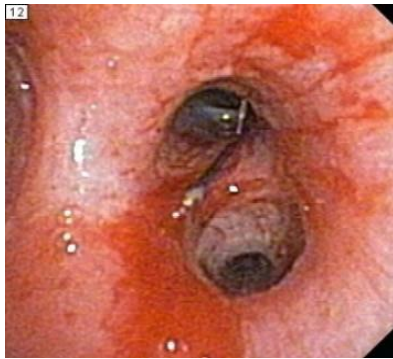


Sanjay Parikh, ENT

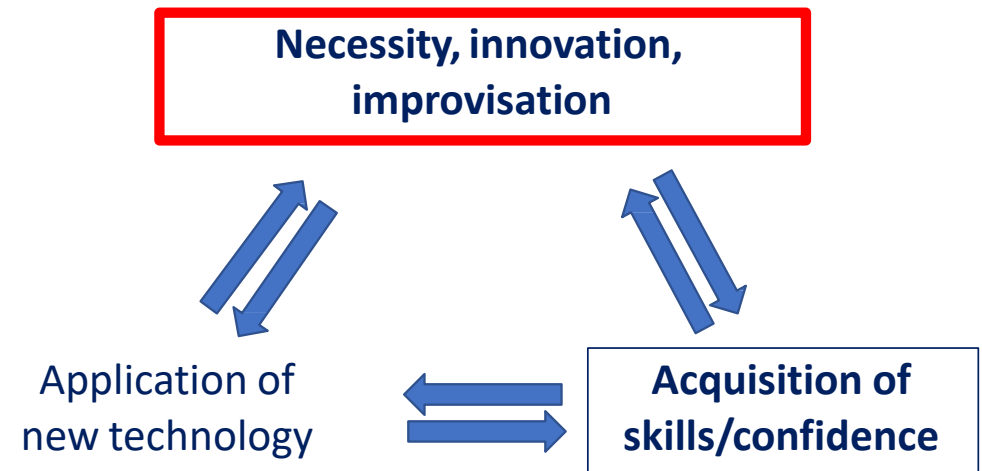
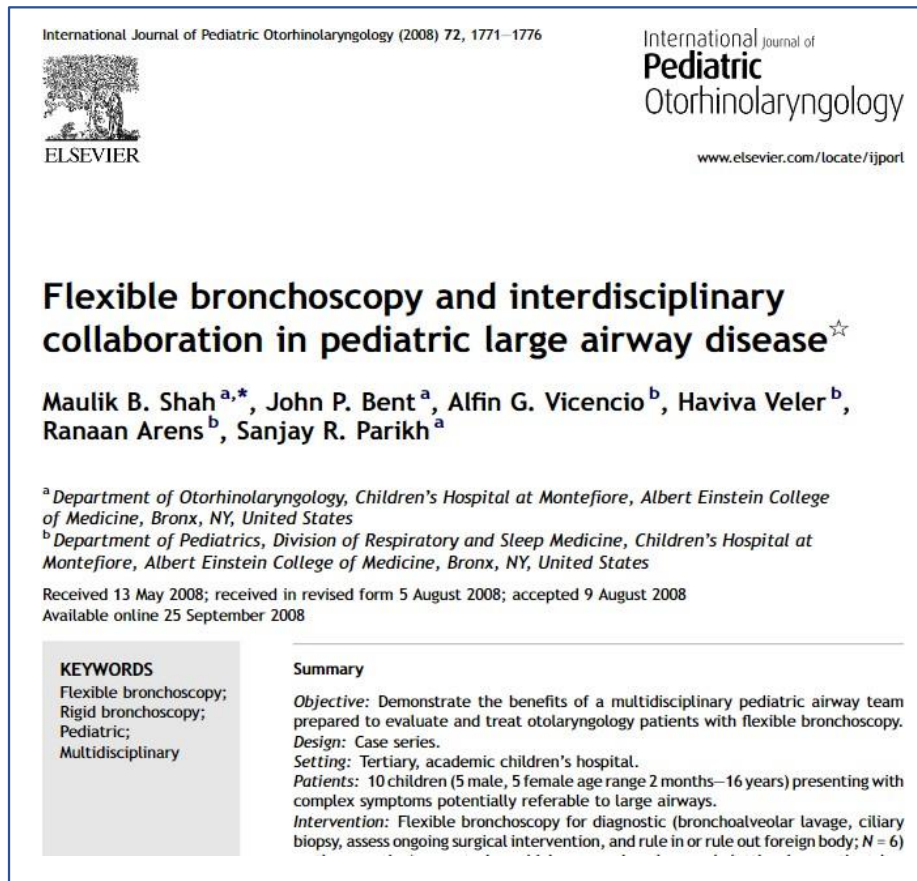




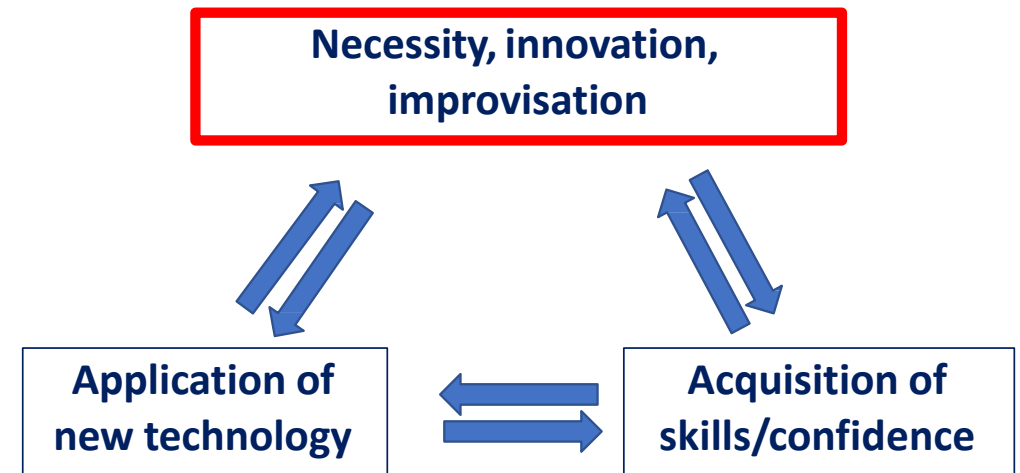
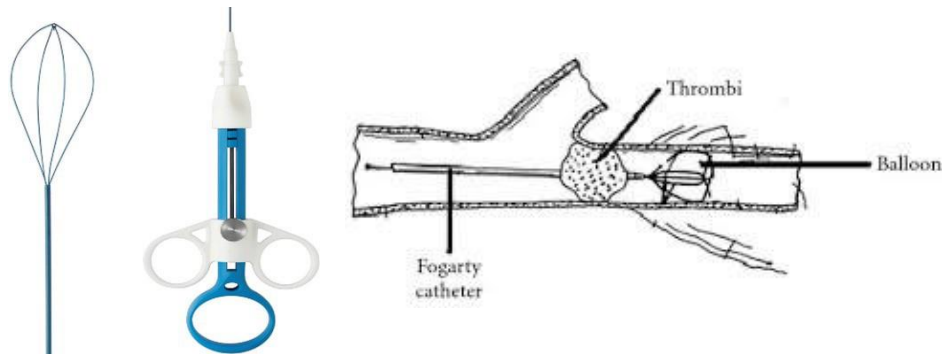
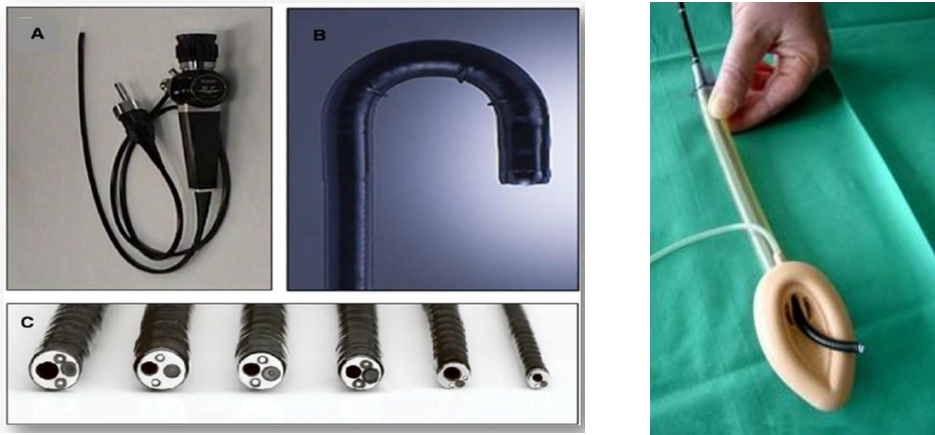
# How did it evolve (for me)?



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# How did it evolve (for me)?





Why should we do it?



# Why should we do it?

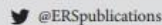
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[Pediatric interventional bronchoscopy]...may significantly limit morbidity from either the underlying disease process or from a more invasive procedure.

# Why should we do it?



## Foreign body aspiration in a child with unilateral lung aplasia

Kiran Nandalike, MD; Aaron Kessel, MD; Sandeep Tripathi, MD; Todd Sweberg, MD; Alfin G. Vicencio, MD

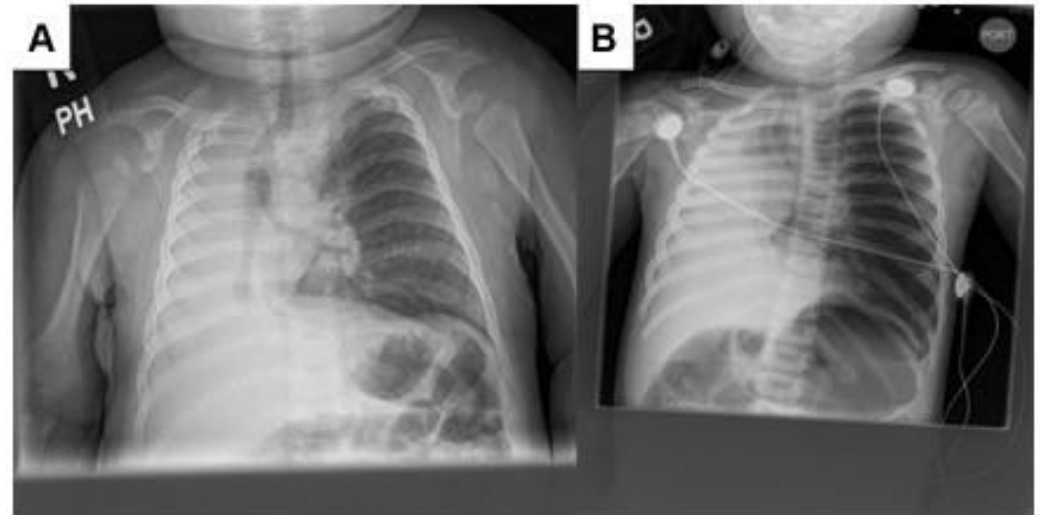
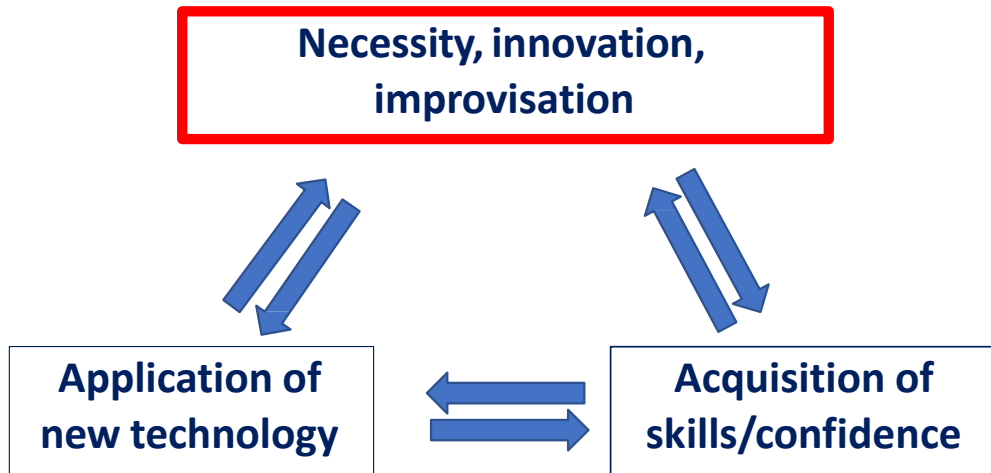


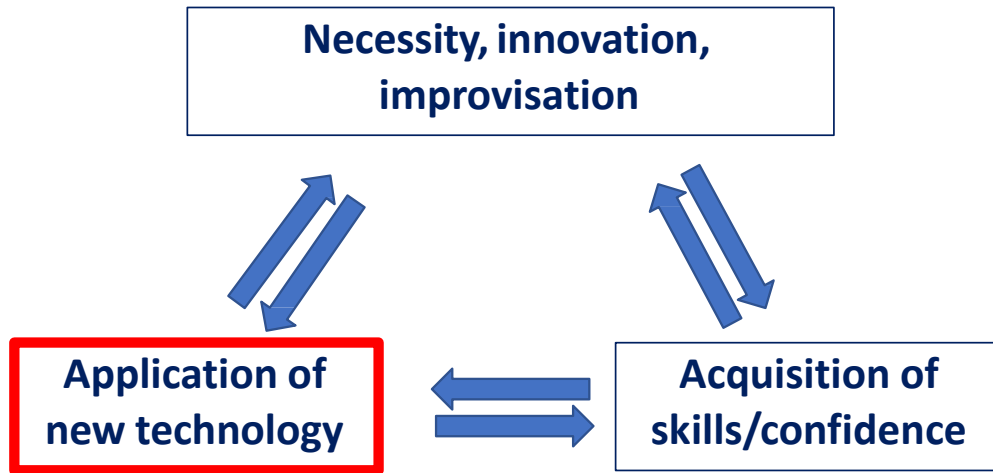
Figure 1. Chest radiographs. *A*, Baseline radiograph demonstrating right lung aplasia, tracheal displacement to the right, and sharp angle of the left main bronchus. *B*, Presenting radiograph demonstrating increased hyperinflation (note disappearance of the left diaphragm).

# Why should we do it?





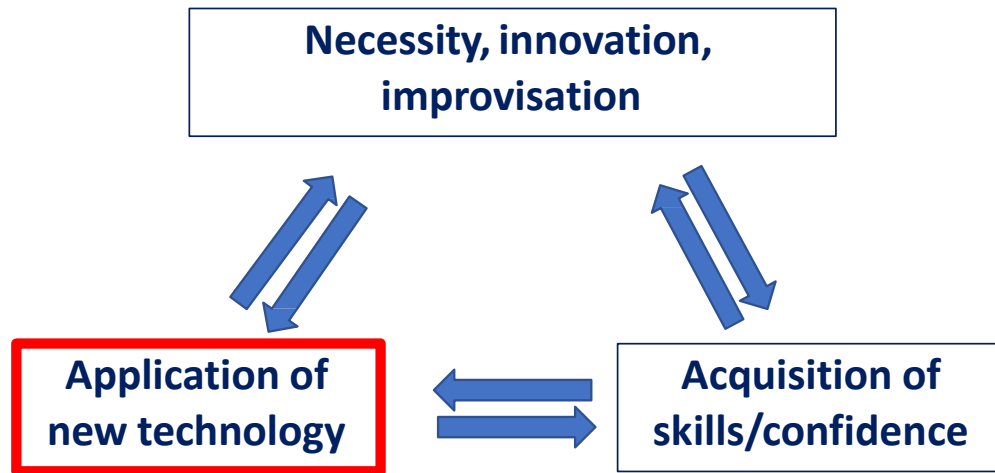
# Why should we do it?



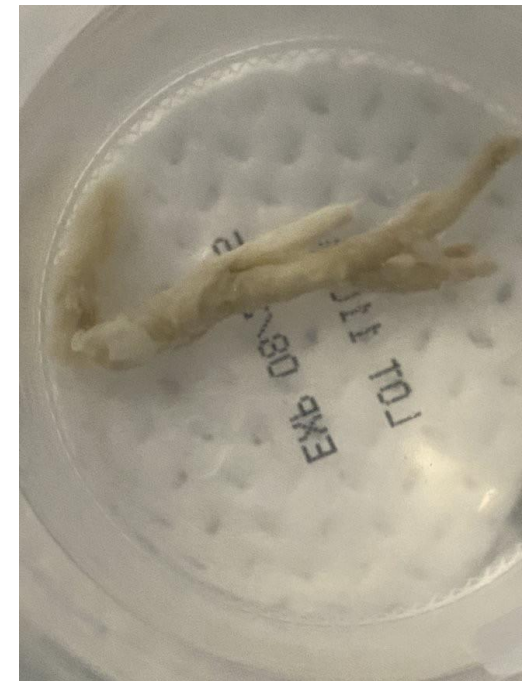
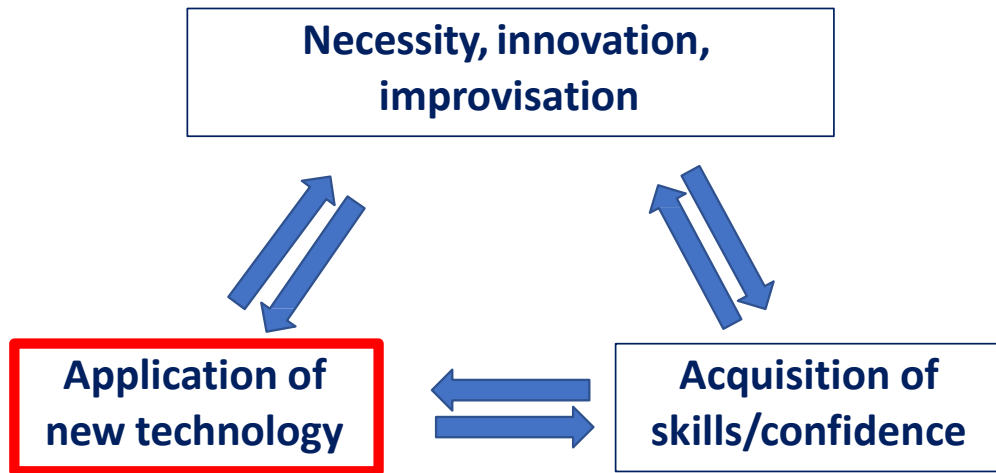
- **Technology**

- New equipment = more options
- Coming whether or not we choose to apply to our field

# Why should we do it?

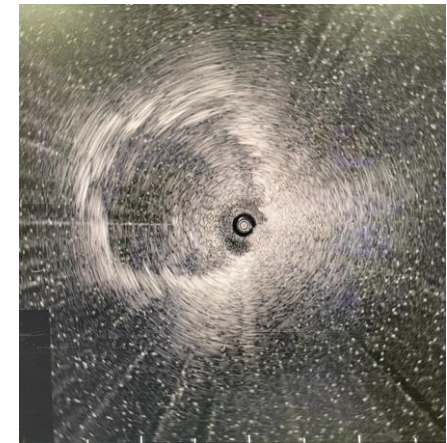
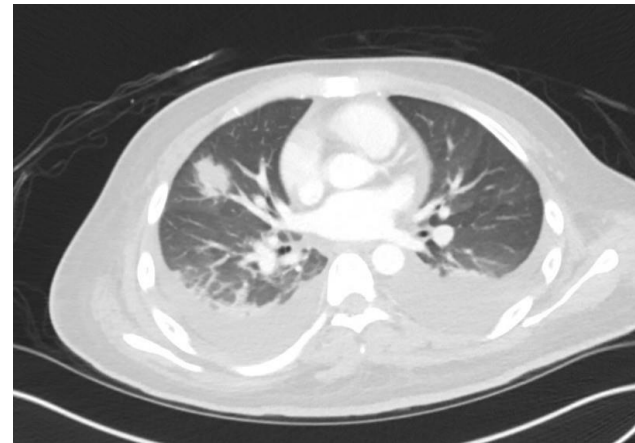
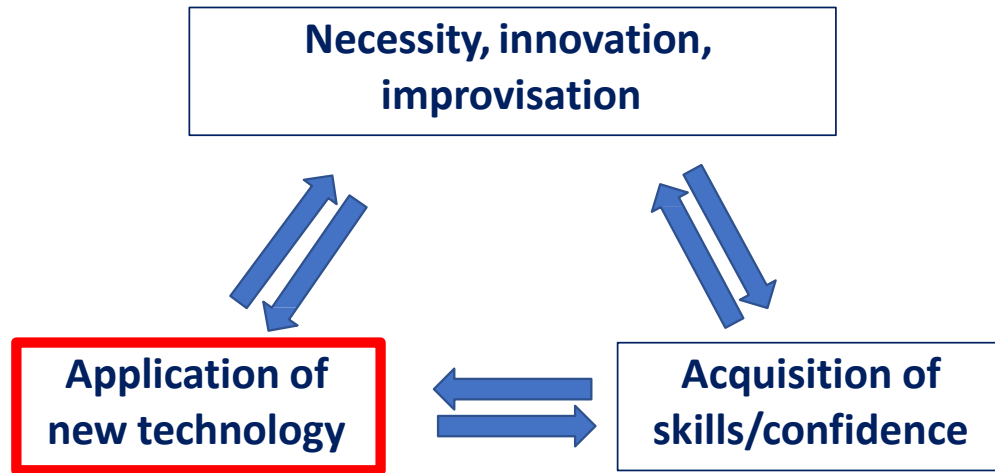


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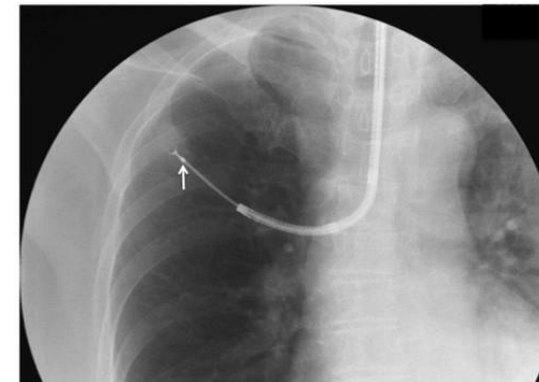


Kharode and Vicencio, ATS Pediatric Assembly Bronchoscopy Library

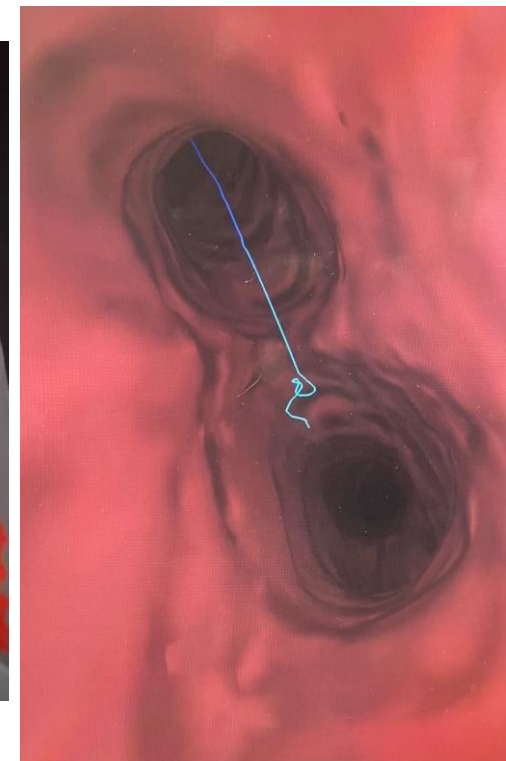
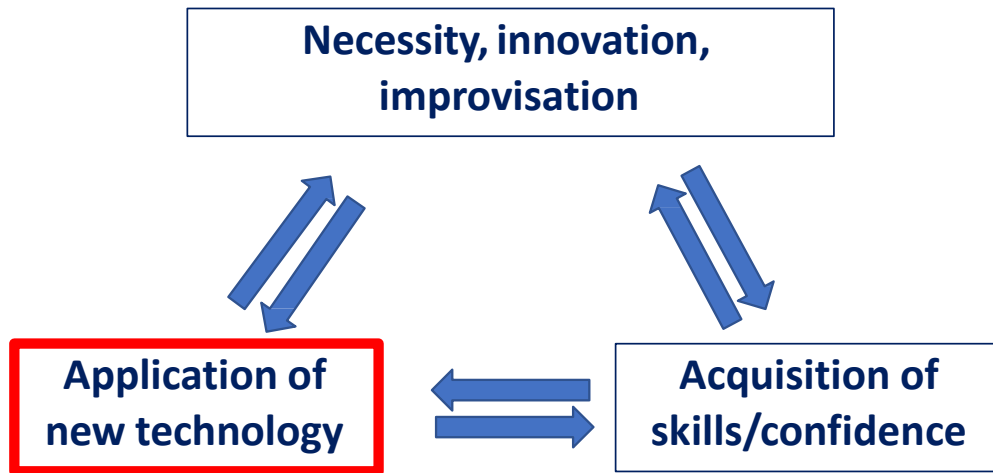
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Personal archives



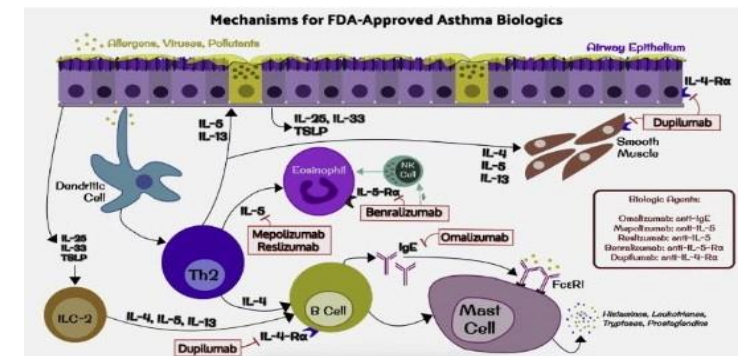
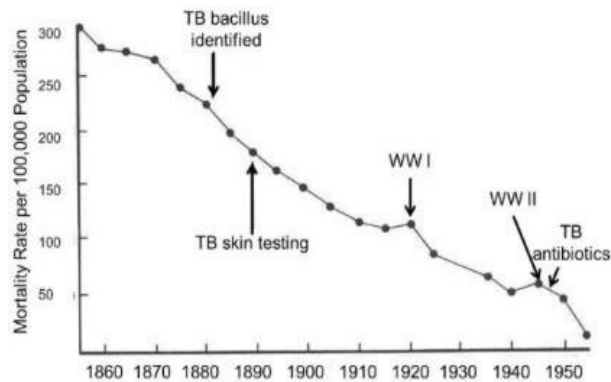
# Why should we do it?



Personal archives

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Pediatric Pulmonology 2024 and beyond – A casualty of our own success?

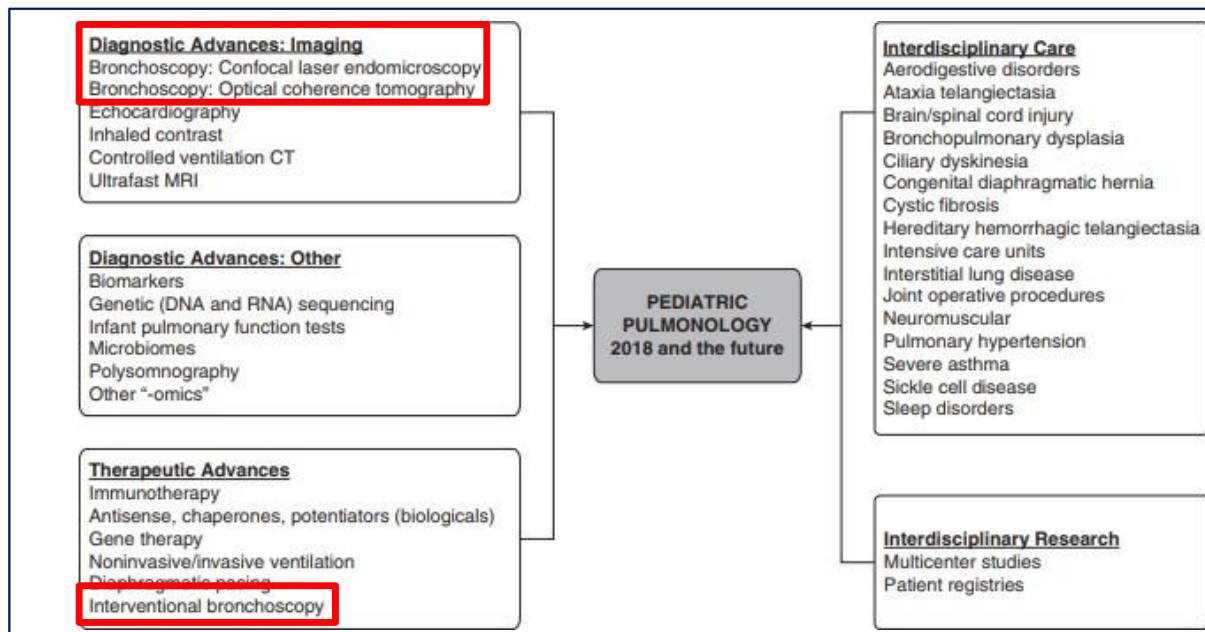




# Why should we do it?

“...challenges in attracting [pediatric pulmonology] trainees ...oddly [are] occurring at a time when exciting diagnostic and therapeutic advances are rapidly developing throughout the field, which should serve as a huge draw for trainees.”

- Collaco and Abman, AJRCCM 2018



# Are the stars aligning?

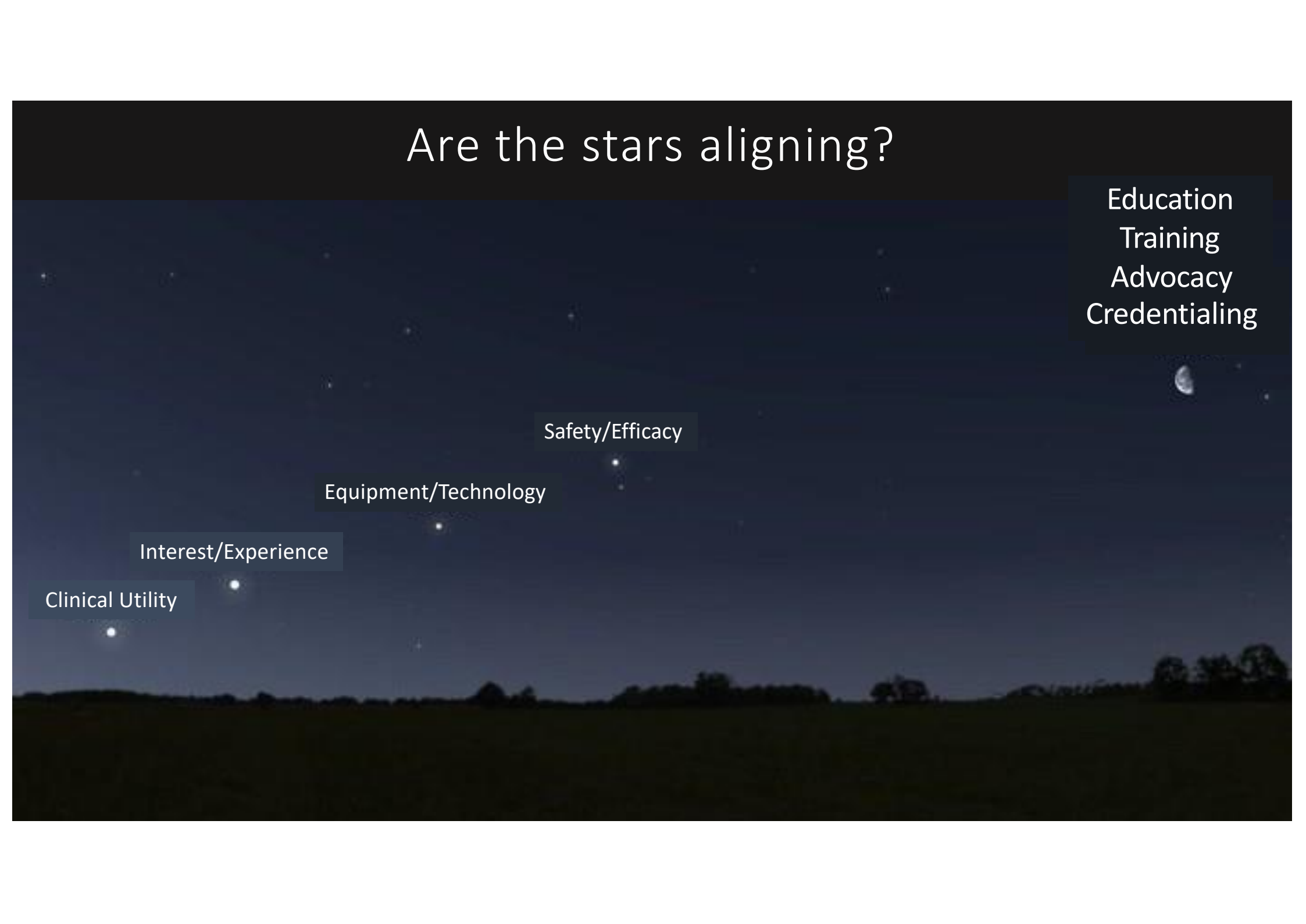
Education  
Training  
Advocacy  
Credentialing

Safety/Efficacy

Equipment/Technology

Interest/Experience

Clinical Utility





Dirk Schramm



Despite an incredible number

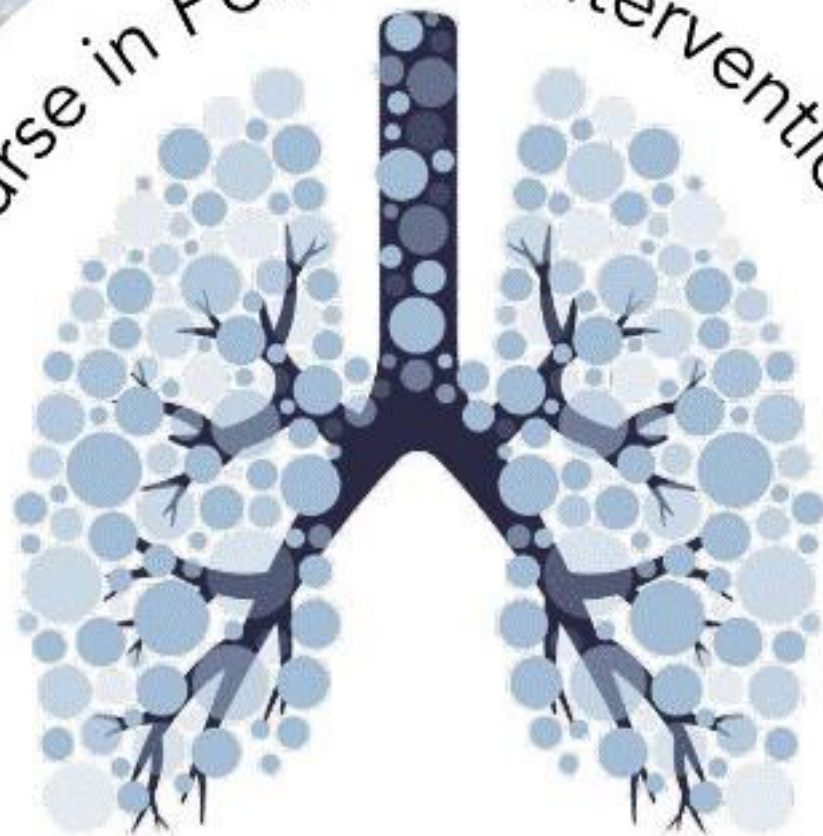
Monica Herz



Annabell Hillers



# 1<sup>st</sup> Hands-On Course in Pediatric Interventional Bronchoscopy



18.-20.04.2024  
Düsseldorf Germany



## Pediatric Bronchoscopy



Mohammad Ashkan Moslehi, MD



Praveen Chenna, MD

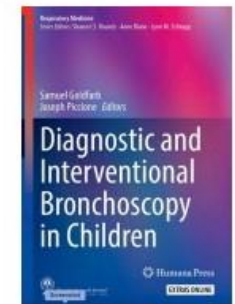
# AABIP Pediatrics Chapter

First Official Meeting  
April 3, 2024





- 





American Association for  
Bronchology and Interventional Pulmonology  
**AUGUST 22-24, 2024 , CHARLOTTE, NC, USA**



Pediatric IP

Date	Time	Room	Session Title
August 23, 2024	7:45-8:45	INTERACTIVE 1	Peds IP: Growing Lungs, Growing Needs: The Evolving Landscape of Pediatric Interventional Pulmonology
August 23, 2024	10:00-11:00	BREAKOUT 1	Pediatric IP: Year in Review
August 23, 2024	1:00-3:00	SIMS ROOM	Simulation Session 5: Interventional Pulmonology for the Pediatric Patient -Advanced and Therapeutic Bronchoscopy Skills
August 23, 2024	4:15-5:15	SIMS ROOM	Pediatric IP Networking Hour





Talent wins games,  
but teamwork...wins  
championships

Michael Jordan



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