give me a 25 slide PPT for the topic Ventilator and artificial respiration, ECMO

Here is a suggested 25-slide **PowerPoint outline** for the topic "Ventilator and Artificial Respiration, ECMO" with key points for each slide. This structure covers definitions, mechanisms, clinical use, and comparisons of ventilators/respiration and ECMO.

Ventilator and Artificial Respiration, ECMO PPT Outline

Introduction (Slides 1-2)

- Title Slide: Ventilator and Artificial Respiration, ECMO [1]
- Overview and Objectives [2] [1]

Basics of Respiration (Slides 3-4)

- Normal Respiratory Physiology: Gas exchange and control [1]
- Definition of Respiratory Failure [3]

Artificial Respiration (Slides 5-7)

- What is Artificial Respiration? When is it used? [4] [1]
- Methods: Manual (mouth-to-mouth, bag-valve-mask) [5] [6]
- Indications and Contraindications [5]

Mechanical Ventilation Introduction (Slides 8-9)

- What is Mechanical Ventilation? [3]
- Indications for Mechanical Ventilation [7] [3]

Ventilator Types & Modes (Slides 10-12)

- Types: Volume vs. Pressure Ventilators [6] [7]
- Basic Modes: Control, Assist-Control, IMV, SIMV [7] [3]
- Advanced Modes: Pressure Support, APRV, HFOV [7]

Ventilator Settings & Monitoring (Slides 13-14)

- Key Parameters: Tidal volume, RR, FiO2, PEEP[3] [7]
- Monitoring and Alarms[7]

Complications of Artificial/Mechanical Ventilation (Slides 15-16)

- Barotrauma, Volutrauma, VAP, etc.[3]
- Weaning and Discontinuation[3]

ECMO Introduction (Slides 17-18)

- What is ECMO? General concept and history[8] [2]
- Evolution and Milestones[9] [2]

Types of ECMO (Slides 19-20)

- Veno-venous (V-V) ECMO[10] [11]
- Veno-arterial (V-A) ECMO[11] [10]

ECMO Circuit & Components (Slides 21-22)

- Main Components: Pump, Oxygenator, Cannulas, Tubing[12] [10]
- How Gas Exchange Occurs[12]

Clinical Indications & Use (Slides 23-24)

- Major Indications: Severe ARDS, Cardiac Failure, Bridge to transplant[8] [11]
- Complications and Contraindications[13] [11]

Summary and Conclusion (Slide 25)

- Key Points and Future Prospects[11] [9]

All text, explanations, diagrams, and images for the slides should be drawn from these topics and featured references, with diagrams for circuits and tables for comparison where appropriate. This outline ensures comprehensive coverage of both **ventilator support** and **ECMO** for academic and clinical presentations.[6] [9] [12] [11] [7]

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1. https://en.wikipedia.org/wiki/Artificial_ventilation
2. https://slideplayer.com/slide/13454271/
3. https://my.clevelandclinic.org/health/treatments/15368-mechanical-ventilation
4. https://www.slideshare.net/slideshow/artificial-respiration-250209781/250209781
5. https://www.slideshare.net/slideshow/artificialrespiration-ppt/226102813

6. https://www.scribd.com/presentation/670781223/Artificial-Respiration
7. https://www.slideserve.com/AboOmar/mechanical-ventilation
8. https://www.slideshare.net/slideshow/ecmo-extracorporeal-membrane-oxygenation/64161410
9. https://www.slideserve.com/Ava/extracorporeal-membrane-oxygenation-ecmo
10. https://www.emra.org/emresident/article/ecmo-series-intro
11. https://www.slideshare.net/slideshow/ecmo-240284761/240284761
12. https://www.elso.org/extracorporeal-membrane-oxygenation.aspx
13. https://pmc.ncbi.nlm.nih.gov/articles/PMC5239989/