

Setting Up a Successful and Viable ECLS Program

Sunil Prasad

Disclosures

- None

What makes talking about ECMO different?

- Half the patients that undergo this procedure die in the hospital



What makes talking about ECMO different?

- Half the patients that undergo this procedure die in the hospital
- A lot of these patients take a long time to die



What makes talking about ECMO different?

- Half the patients that undergo this procedure die in the hospital
- A lot of these patients take a long time to die
- The daily care of these dying patients takes more resources than the ones that live



What makes talking about ECMO different?

- Half the patients that undergo this procedure die in the hospital
- A lot of these patients take a long time to die
- The daily care of these dying patients takes more resources than the ones that live
- Patient are hooked-up to machines the entire time. As unnatural as it gets



Today's talk is different

It is not about the taking care of the ECMO patient.

It is about building a program to also take care of the people taking care of the patient



Disclosures

- This is a no BS talk



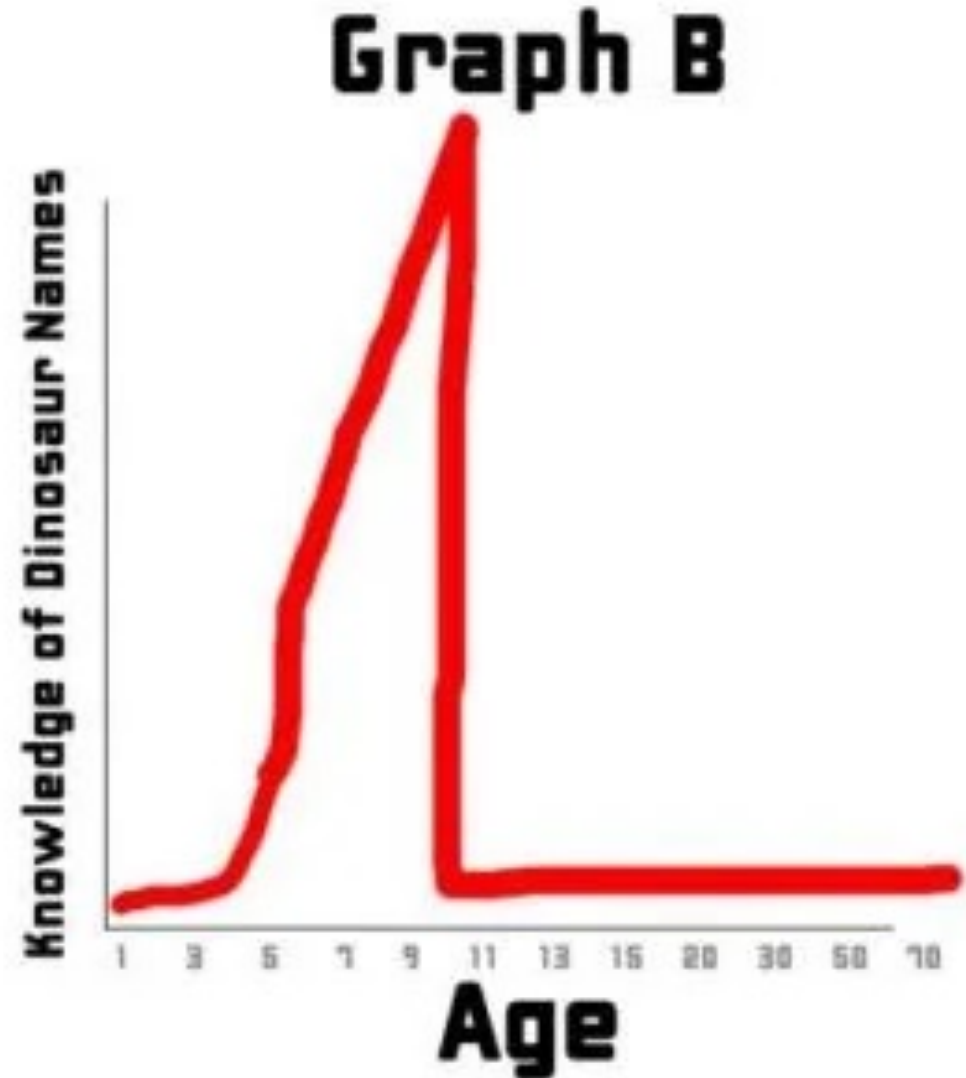
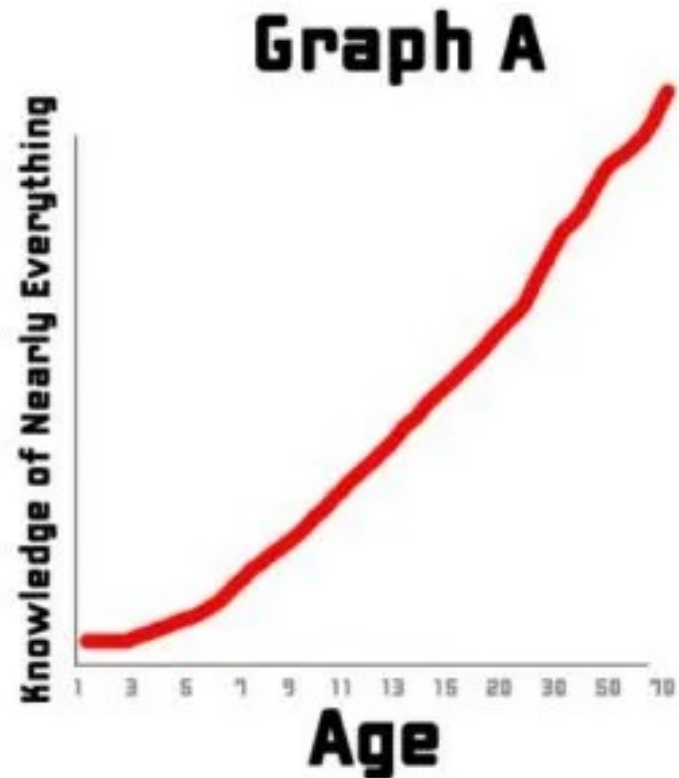
- Everybody has an ECMO program
- Everybody is an expert in “putting people on ECMO”
- Everybody is an expert on “ECMO vent management”
- Everybody is an expert on “ECMO machine management



- Why waste your time this afternoon?
- More importantly, Why waste my time?



- First, I am not an expert on ECMO care
- I make mistakes
- The more I age the less a know about ECMO



Training

- We train in medical specialties, where we attempt to master the knowledge
- But we do not train in building teams
 - Alpha
 - The busiest
 - The smartest
 - The most RVUs
 - The oldest knows most. “ I been doing this a long time”



A different type of Training

- I have had the opportunity to receive training on how to live with a child with Autism
- Developing a sustainable relationship with those who think different than yourself

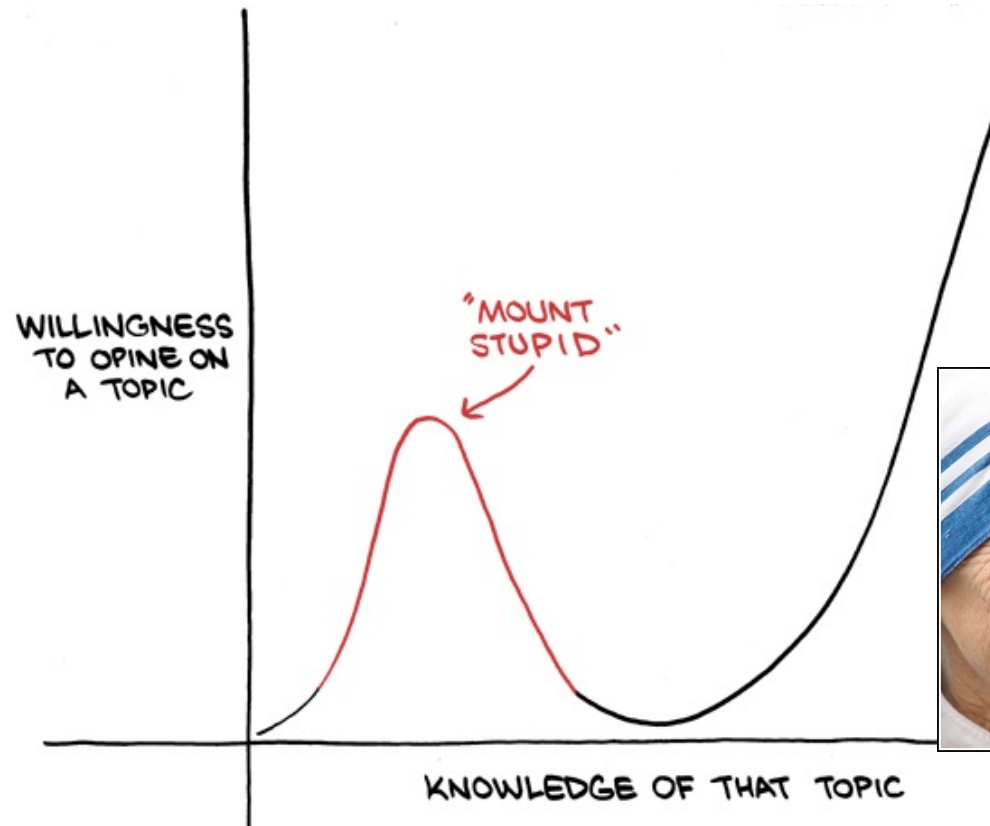
- Compassion
- Compromise
- Loss of ego
- Understanding
- Thoughtfulness



Qualities lost in Medicine

- Compassion
- Compromise
- Loss of ego
- Understanding
- Thoughtfulness

- Empathy
- Respect of others
- Conflict Resolution
- Not everyone is you
- Patience



Thoughtfulness means including and valuing each other.



Thoughtfulness is the beginning of great sanctity. If you learn this art of being thoughtful, you will become more and more Christ-like, for his heart was meek and he always thought of others. Our vocation, to be beautiful, must be full of thought for others.

— Mother Teresa —

AZ QUOTES

No universal solution of an ECMO program

- ECMO programs should not be based on EGOs
- ECMO programs should not be based on increasing volumes



- ECMO should be based on the needs of the local community
- You need to know who you are and want you want to be
- **Build Programs that allow Change!!!!**

A simple line drawing of a person in a blue shirt and black pants, leaning forward and pulling a large, dark grey weight. The weight is labeled with the letters 'EGO' in a blue, hand-drawn font.

Most dangerous three letter word....



There is a different ECMO program for every Community

- The value for a singular ECMO program covering a smaller population over a great area.



There is a different ECMO program for every Community

- The value for a singular ECMO program covering a smaller population over a great area.



- The value of two ECMO programs covering a moderate population over a large area



There is a different ECMO program for every Community

- The value for a singular ECMO program covering a smaller population over a great area.



- The value of two ECMO programs covering a moderate population over a large area



- The value of a multiple ECMO programs covering any population and area.

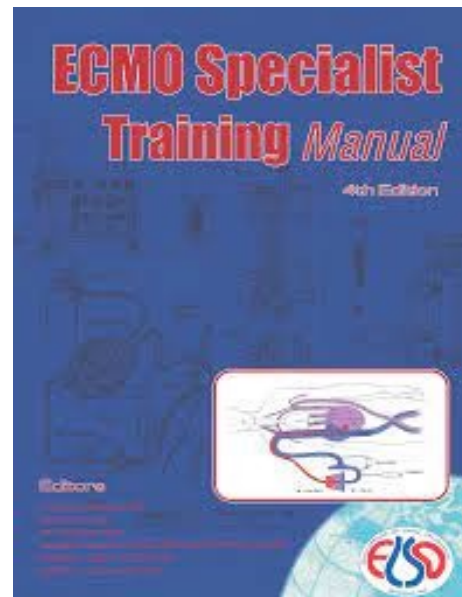


Many Models of Bedside Daily ECMO coverage

- Perfusion Model
- RN Model
- RT Model
- ECMO Specialist Model
- Bedside RN
- Combinations

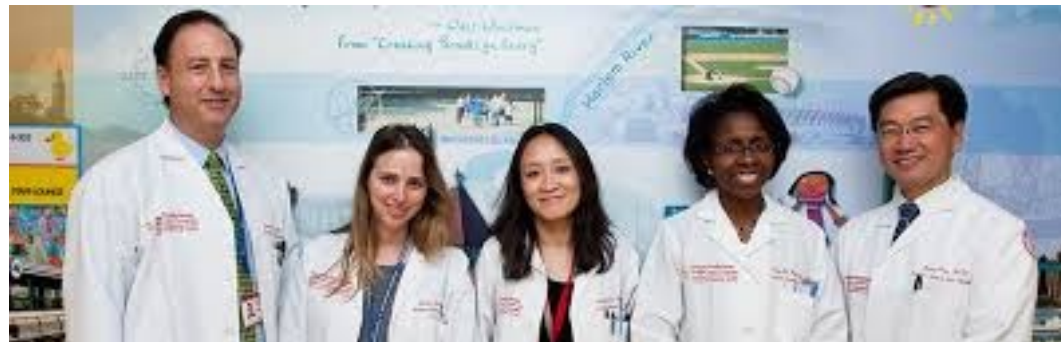
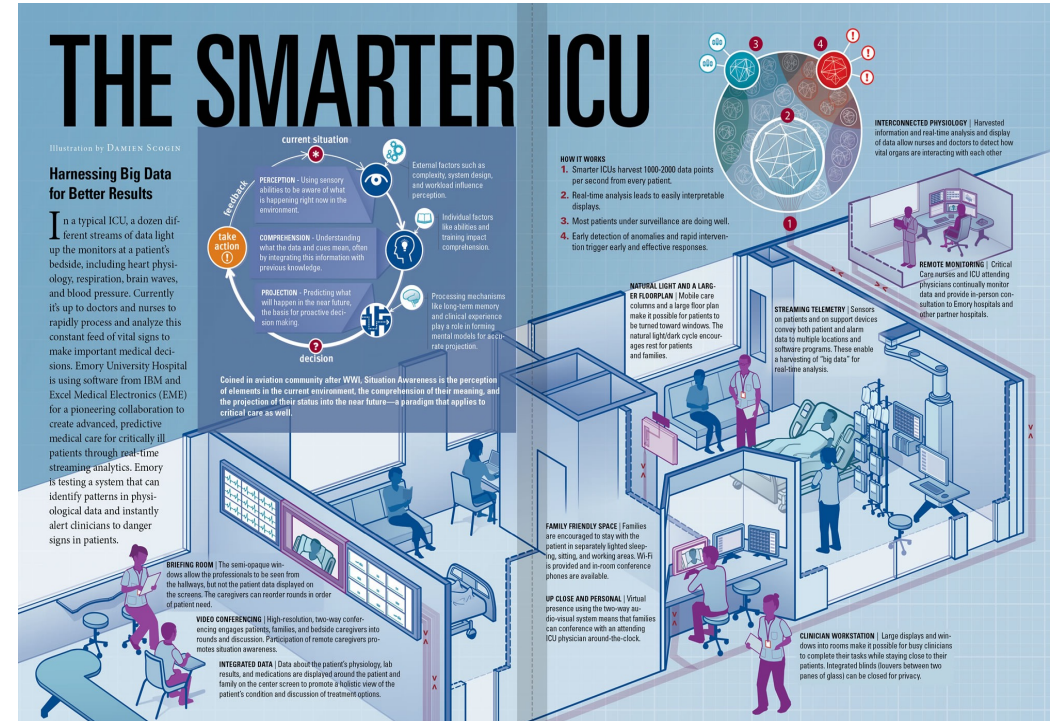


AAARC American Association for
Respiratory Care



Many Models of Supervision of Daily ECMO Care

- Cardiac Surgeon
- Thoracic Surgeon
- Cardiac Intensivist
- Medical Intensivist
- Surgical Intensivists
- Co- Management
- Closed Management

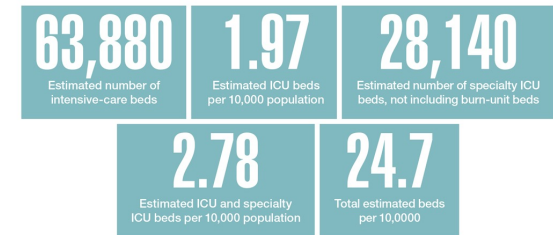
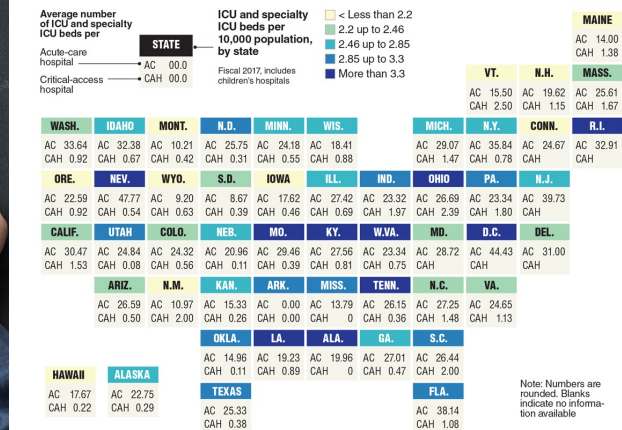


My thoughts



Basic structures

- Intake
- Evaluation
- Insertion/Initiation
- Location
- Management
- Decannulation
- Post ECMO hospital care
- Discharge



Source: Modern Healthcare analysis of 2017 CMS cost reports, the most recent and complete set of reports available, and U.S. Census 2017 five-year population estimates. Estimates include Puerto Rico. Cost reports are self-reported by hospitals and health systems and contain omissions and errors. Some hospitals do not report data to the CMS.

ECMO programs

- Built around people
- Not pumps, cannulas, egos

- The Patient
- The Family
- The Bedside ICU team. Nurses/RT/ECMO Specialist
- The APP
- The Doctor

Putting it together

- Intake
- Evaluation
- Insertion/Initiation
- Location
- Management
- Decannulation
- Post ECMO hospital care
- Discharge

- The Patient
- The Family
- The Bedside ICU team.
Nurses/RT/ECMO
Specialist
- The APP
- The Doctor


- Compassion
- Compromise
- Loss of ego
- Understanding
- Thoughtfulness
- Empathy
- Respect of others
- Conflict Resolution
- Not everyone is you
- Patience



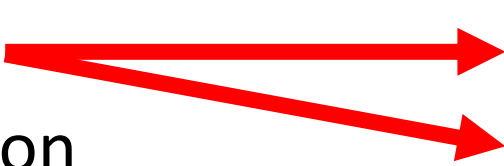
What do you need to do

- Intake
 - Evaluation
 - Insertion/Initiation
 - Location
 - Management
 - Decannulation
 - Post ECMO hospital care
 - Discharge
- The Patient
 - The Family
 - The Bedside ICU team.
Nurses/RT/ECMO Specialist
 - The APP
 - The Doctor
- Compassion
 - Compromise
 - Loss of ego
 - Understanding
 - Thoughtfulness
 - Empathy
 - Respect of others
 - Conflict Resolution
 - Not everyone is you
 - Patience

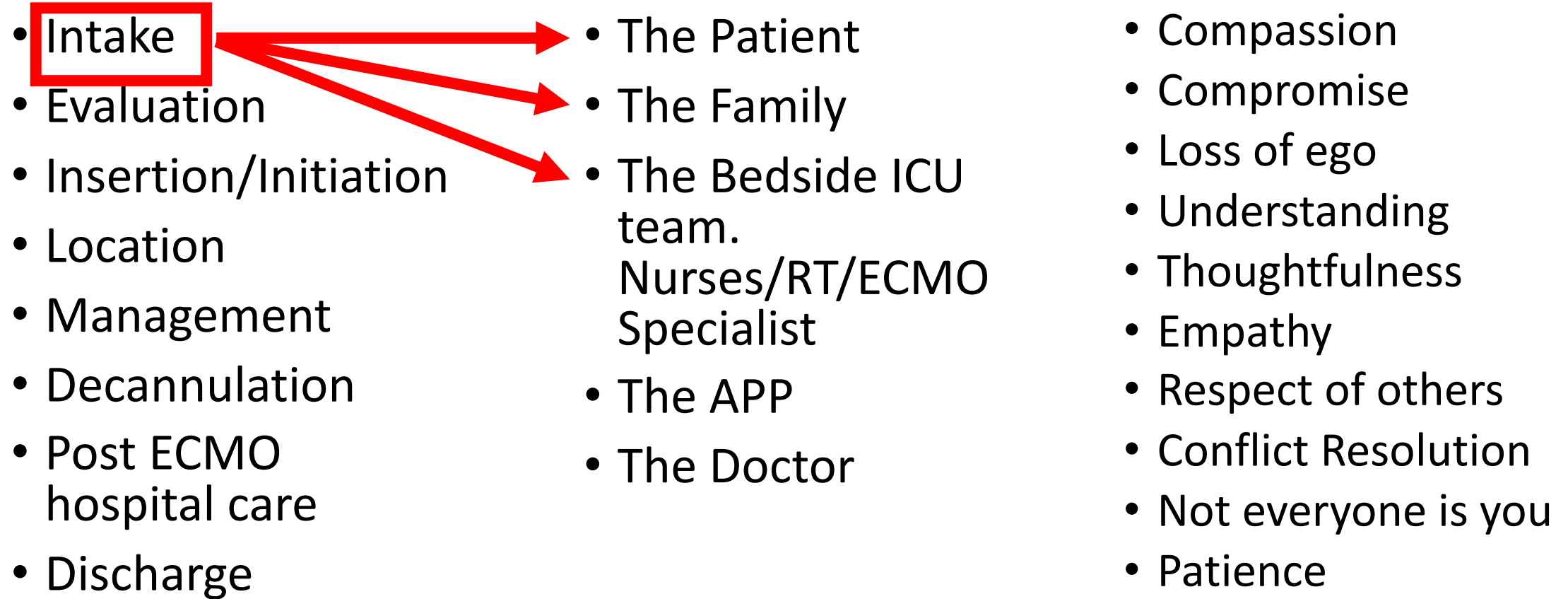
Who get effected

- Intake
 - Evaluation
 - Insertion/Initiation
 - Location
 - Management
 - Decannulation
 - Post ECMO hospital care
 - Discharge
- 
- The Patient
 - The Family
 - The Bedside ICU team.
Nurses/RT/ECMO Specialist
 - The APP
 - The Doctor
- Compassion
 - Compromise
 - Loss of ego
 - Understanding
 - Thoughtfulness
 - Empathy
 - Respect of others
 - Conflict Resolution
 - Not everyone is you
 - Patience

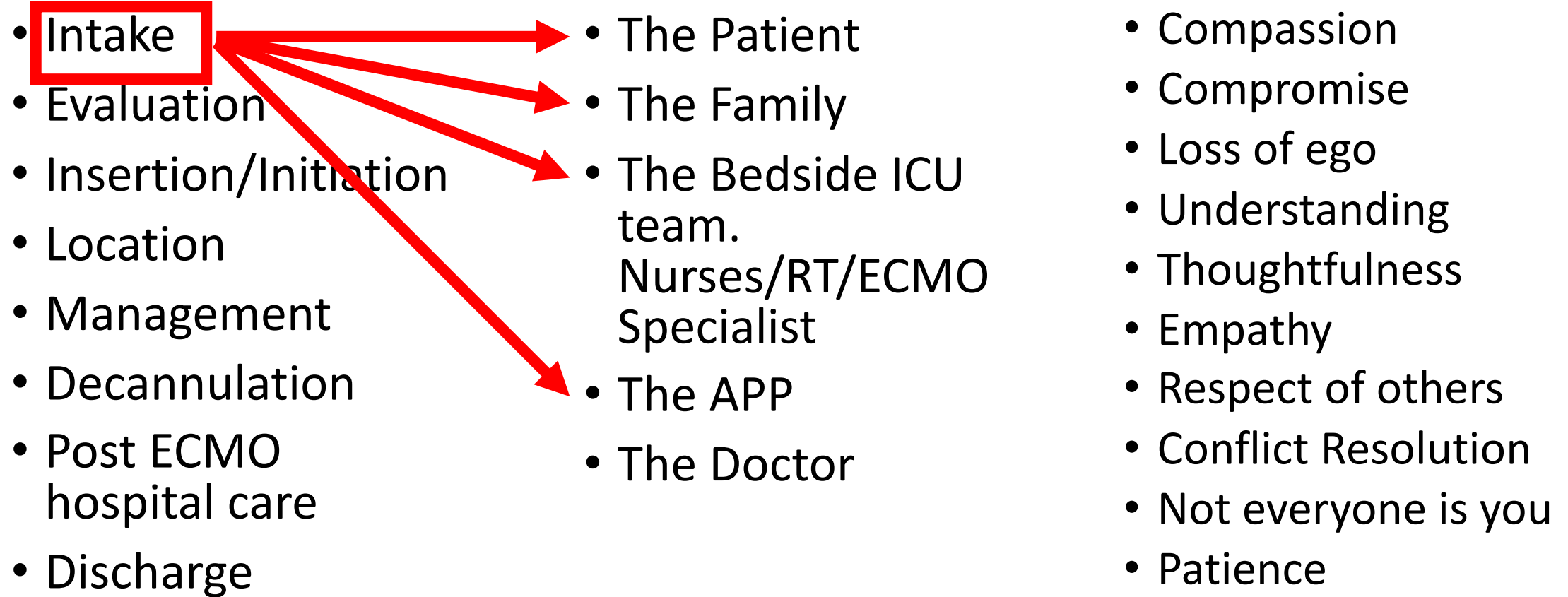
Putting it together

- Intake
 - Evaluation
 - Insertion/Initiation
 - Location
 - Management
 - Decannulation
 - Post ECMO hospital care
 - Discharge
- 
- The Patient
 - The Family
 - The Bedside ICU team.
Nurses/RT/ECMO Specialist
 - The APP
 - The Doctor
- Compassion
 - Compromise
 - Loss of ego
 - Understanding
 - Thoughtfulness
 - Empathy
 - Respect of others
 - Conflict Resolution
 - Not everyone is you
 - Patience

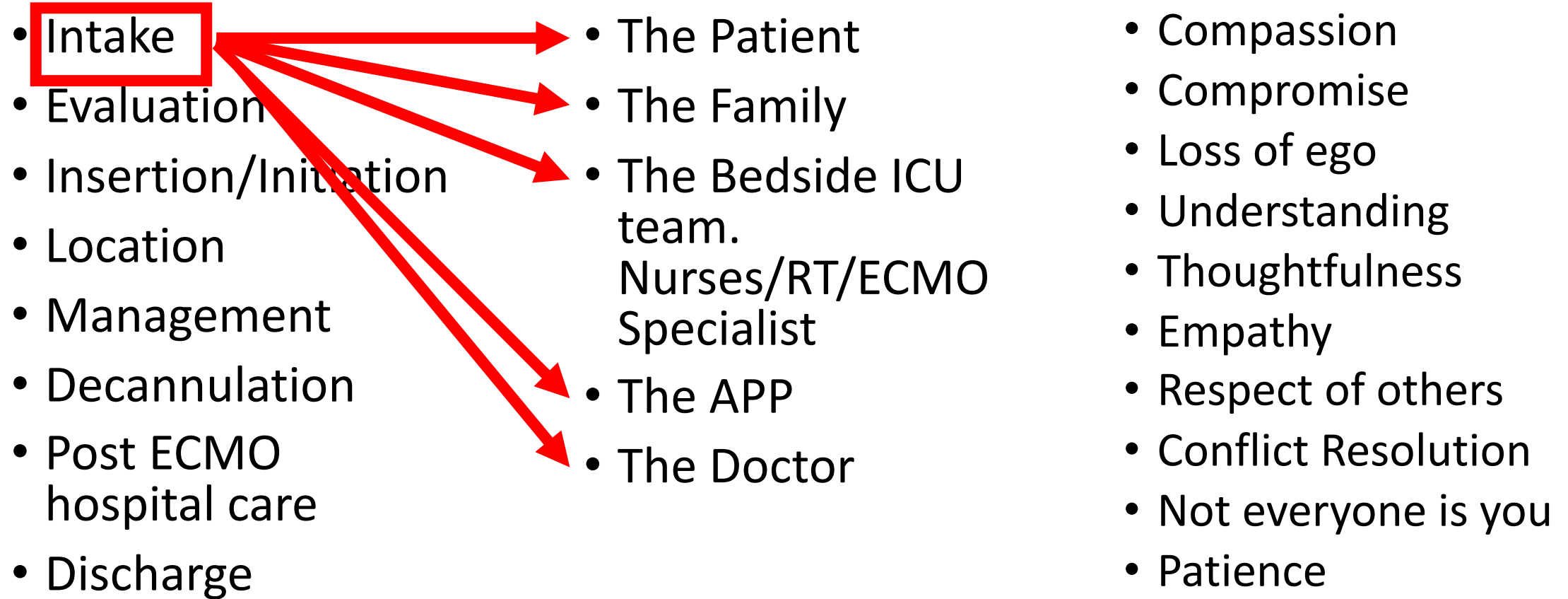
Who get effected



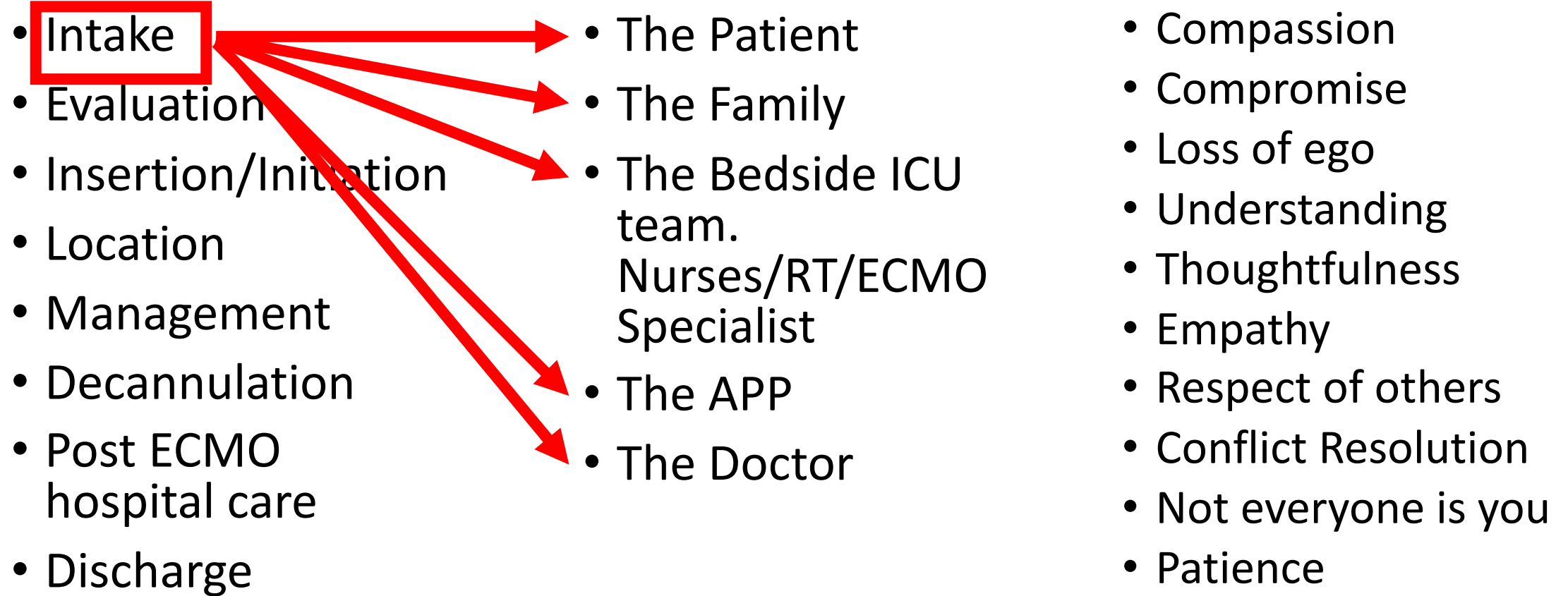
Who get effected





Putting it together



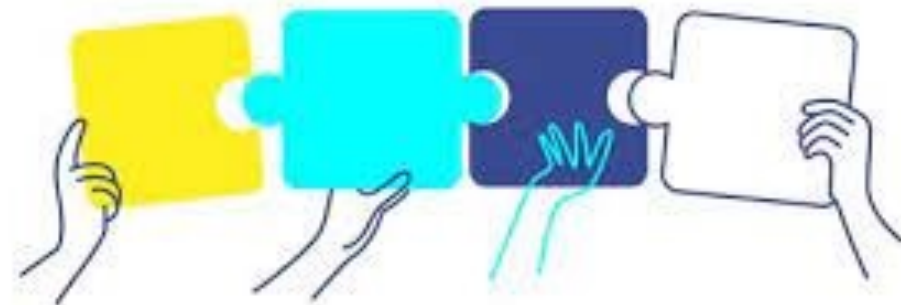
Who get effected



Bring in our values

- Intake
 - Evaluation
 - Insertion/Initiation
 - Location
 - Management
 - Decannulation
 - Post ECMO hospital care
 - Discharge
- 
- 
- The Patient
 - The Family
 - The Bedside ICU team.
Nurses/RT/ECMO Specialist
 - The APP
 - The Doctor
- Compassion
 - Compromise
 - Loss of ego
 - Understanding
 - Thoughtfulness
 - Empathy
 - Respect of others
 - Conflict Resolution
 - Not everyone is you
 - Patience

- There is no magical structure
- If you thought I was going to give you answers, you will be greatly disappointed
- I am going to give you more questions



Intake

- Create a system where patient has access into ECMO care
 - In house ECMO team
 - ECMO page (notifications)
 - Transfer Center Line
 - ICU availability
 - Location of Pump and primed
 - Location of cannulas and wires
 - Cath Lab
 - ECMO cart
 - OR
 - Family waiting area



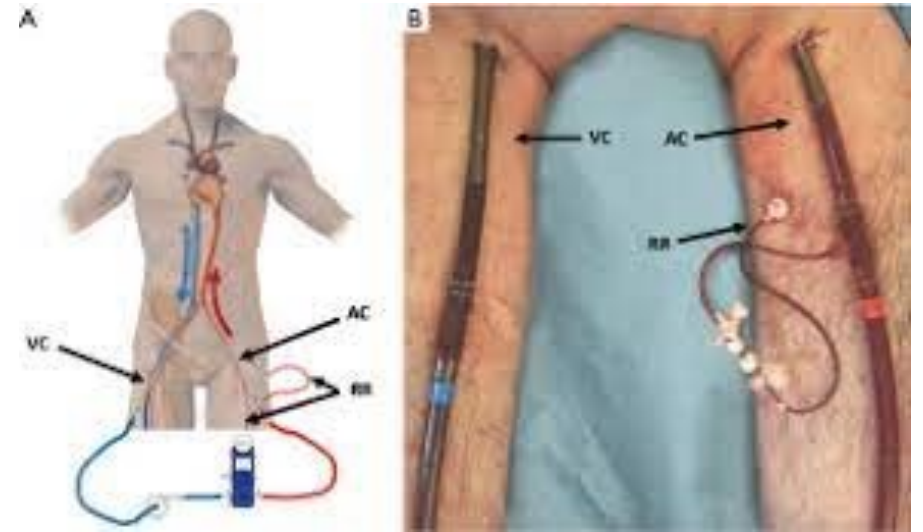
Evaluation

- Who are the team members
- VV or VA
- Phone, Conference call, Zoom
- Are there guidelines (and how are they formed)
- Is there documentation?
- How the final decision made?
- How is the patient consented



Insertion/Initiation

- Who is inserting the cannulas
- Who decides the size and location of access
- Who is responsible to bleeding/adjustments
- Who is responsible for reperfusion cannula
- Who connects the tubing
- Location VV vs VA vs ECPR
- Who call the perfusionist/ECMO specialist for circuit?
- Bedside, ICU, Cath Lab, OR



Location

- In one ICU
- A separate ICU for VA and VV
- Multiple ICUs (SICU, MICU, CTICU, CCU)
- Staffing models: the same or different?
- Equipment



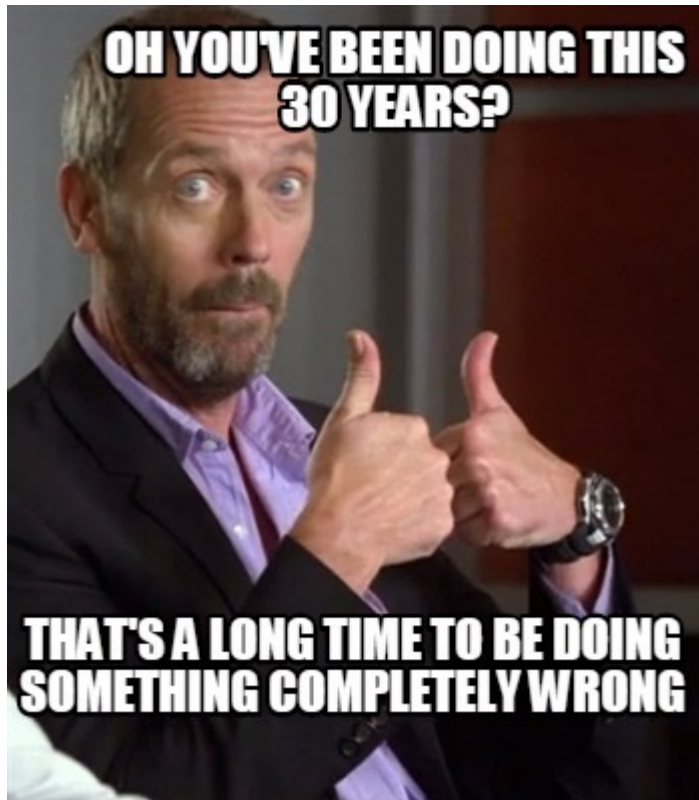
Management



 EGO

Most dangerous three
letter word....

Management



Management

- Create a working group
- Find a common vision
- Create a pathway that reduces the tension on daily round

- Use the skills that we are not taught (Compromise, thoughtfulness, understanding, etc)

- When the doctors fight the team knows. It is uncomfortable for all



Decannulation

- Who decides decannulation decision
- Where is decannulation done
- When is decannulation done
- Who is doing decannulation
- Decision to restart ECMO
- Post procedural complication responsibilities
 - Cold foot, bleeding, wound infection, wound care



Post ECMO care

- Who takes care of them after ECMO is removed?
 - Different ICU team and location
 - Different attending team
- Where do they go after the ICU?
 - What service
 - What location
 - PT, OT, Nutrition, RT
 - Discharge planning



Discharge

- Palliative care
 - Ethics
 - Who leads family meeting
 - Who is ultimately responsible for withdrawal conversations
 - Debriefing with team
 - Wellness access
-
- Survivors' clinic
 - Wound vacs, wound check
 - Follow-up with cardiology, pulmonary, primary



Putting it together

- Be thoughtful
- Make processes with the input of each member specialty of the team
- Create consistency and transparency, by writing processes down so those that are not involved will know
- Allow change
- It is ok to not know everything
- It is ok to be wrong
- As leaders, the health of your team is as important as the patient's.
- Put the same effort and passion in saving your patients, towards your team and you will have a strong, sustainable, functional program