401097 – Clinical Leadership and Patient Safety

Week 2 – Introduction Lecture:

What is Clinical Leadership?

- Clinical leadership is putting clinicians at the heart of shaping and running clinical services, so as to deliver excellent outcomes for patients and populations, not as a one-off task or project, but as a core part of clinicians' professional identity.
- Hence, clinical leadership involves clinicians carrying out leadership responsibilities by ***setting and inspiring values and vision*** in the health-care organization and providing high-quality health-care services to patients.

What Functions Does a Clinical Leader Perform?

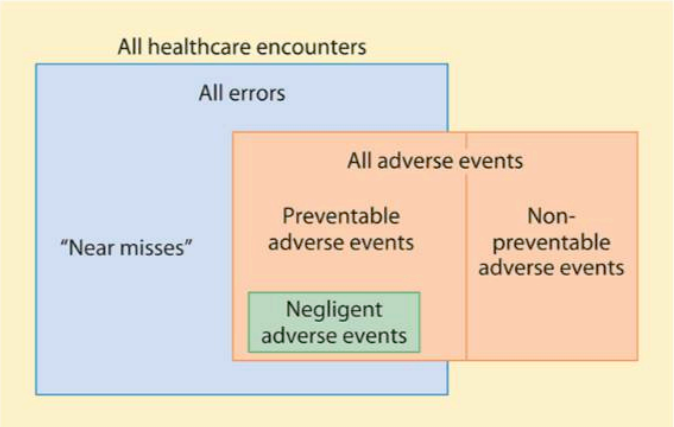
- Inspires others to perform at their best
- Builds a commitment within the team to provide care
- Staff are engaged to do tasks

What is the Impact of Leadership on Patient Outcomes?

- Decreased mortality
- Decreased adverse events/errors
- Increased patient satisfaction
- Increased patient outcomes

What is Patient Safety?

- The **reduction of risk** of unnecessary harm associated with the healthcare to an acceptable minimum
  - It doesn't say removal of harm, because we know that the acceptable minimum is realistic. There is no way to make healthcare harm free.
- Prevention of errors and adverse effects to patients associated with healthcare
  - The practice
  - The organisational system – patient safety infrastructure (organisation standards)
- In order for you to work safely as a healthcare professional, it is critical that you understand the patient safety systems and structures around you



- Within the healthcare encounters, there are errors which are either near misses (they almost happen, or they do not result in harm to the patient) or an adverse effect.
- Adverse effects are broken down in to preventable and not preventable, and within preventable there are negligent adverse effects.

How Does Clinical Leadership Relate to Patient Safety?

- Strategies for sustainable patient safety and system improvement are dependent on strong clinical leadership capabilities
- Decreased adverse events
- Improved staff performance
- Decreased healthcare errors
- Increased quality improvement

Distributed Leadership:

- Leadership does not have to come from higher rank, it should not be a top to bottom flow.
  - E.g. IMISTAMBO coming from Jacinta Young

Everyday Leadership:

- Small things that you do throughout the day matter
  - Drew Dudley TEDx – Lollipop moments where something has impacted your life, however that person probably doesn't even remember doing it.

The Importance of Clinical Leadership in 21st Century Health Care:

- Leadership is a key component in all industries including health care where harm has occurred, and it has nearly always been due to an absence of leadership.
- Therefore, we need to know more about, talk more about, develop further, and instil in our clinical staff the importance of leadership.
- **Authoritarian leaders** like to be in charge, expect people to perform as they are told, and do not like to be questioned. They provide clear expectations for what needed to be done, when it should be done and how it should be done where decisions are made independently from the group. This type of leadership is useful in routine work and with little possibility for group decision-making.
- **Shared (or democratic)** leadership is the style which clinical leaders should seek to implement. In this style, responsibility for decisions is generally spread throughout the team and the group members are enthusiastically engaged. Leaders not only offer guidance but also take part and promote input from the group members, and they assume individuals are motivated by internal forces and use follower participation to get tasks completed.
- **Laissez faire or impoverished leaders** have little or no guidance at all to the group members and hence the decision making is left to them to do their job appropriately. It is not clear that the leader is aware of what is happening in her/his organization and followers are left on their own to conduct their duties.

NHS Leadership Model:

- Provide and justify a clear sense of purpose and contribution
  - Needs and experiences of service users
- Motivate teams and individuals to work effectively
  - Define clear goals
  - Build team commitment
  - High staff engagement
  - Listen to staff
- Focus on improving system performance
  - Encourage the practice of service improvement
  - Address system problems and pursue innovation
  - Model learning of new behaviours

The Importance of Clinical Leadership:

- Good clinical leadership is associated with high-quality and cost-effective care.
- Clinical leadership is used to encapsulate the concept of clinical healthcare staff undertaking the roles of leadership: setting, inspiring and promoting values and vision, and using their clinical experience and skills to ensure the needs of the patient are the central focus in the organisation's aims and delivery.
- Effective clinical leadership in an organisation leads to both higher-quality care and greater profit.

Week 3 – Understanding Yourself as a Leader – Lecture:

Leadership:

- Leadership is not the sole responsibility of people in positions where leadership is part of their job.
- Leadership can and must occur at all levels of an ambulance service or industry, and that it can be practiced by a graduate intern as much as by a station manager and divisional manager
- 'Clinical leadership' can occur in different situations but is not simply scene and people management while on a job.

Are Great Leaders Born or Made?

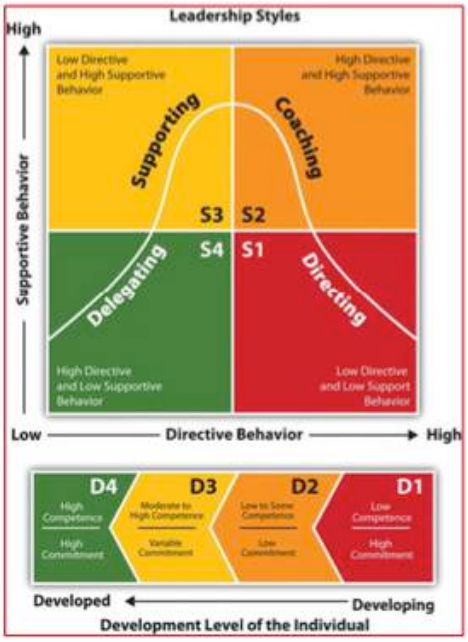
- Both – Leadership theories and personal experiences

Leadership Theories:

1. **The great man theory:**
   - Great leaders are bone, not made. "Natural leader"
2. **The trait theory:**
   - Which individual characteristics are good leadership, its identified heaps of traits and not one cluster has been put together to say, "you only need these to be a good leader"
3. **The skills theory:**
   - Identifies skills needed to lead, i.e. if you want people to follow you, you need technical skills in the field, people skills, and conceptual skills
4. **The style theory:**
   - "Be demanding but also be __" – the managerial grid is being people friendly as well as insisting on performance
5. **The situational theory:**
   - There's no one size fits all, you must adapt style depending on your situation
6. **The contingency theory:**
   - Assumes that the leadership default style is fixed, so you need the right leader for the right situation
7. **Transactional leadership:**
   - People will follow based on incentives, i.e. rewards and punishment
8. **Transformational leadership:**
   - Encourage, inspire, care for them. Cultivate followership as opposed to trying to buy or punish it
9. **Leader-member exchange:**
   - Leadership is a fair exchange between the leader and the person, which creates an in and out group (kind of like in crowd and everyone else) which leads to lower performance
10. **Servant theory:**
    - Blend between transformational leadership and transactional. If a leader meets the needs of the people (i.e. serving, not being served), then that creates a dynamic of trust, connection, reciprocal service. Jesus' influence, e.g. they followed out of love and gratitude and not fear.

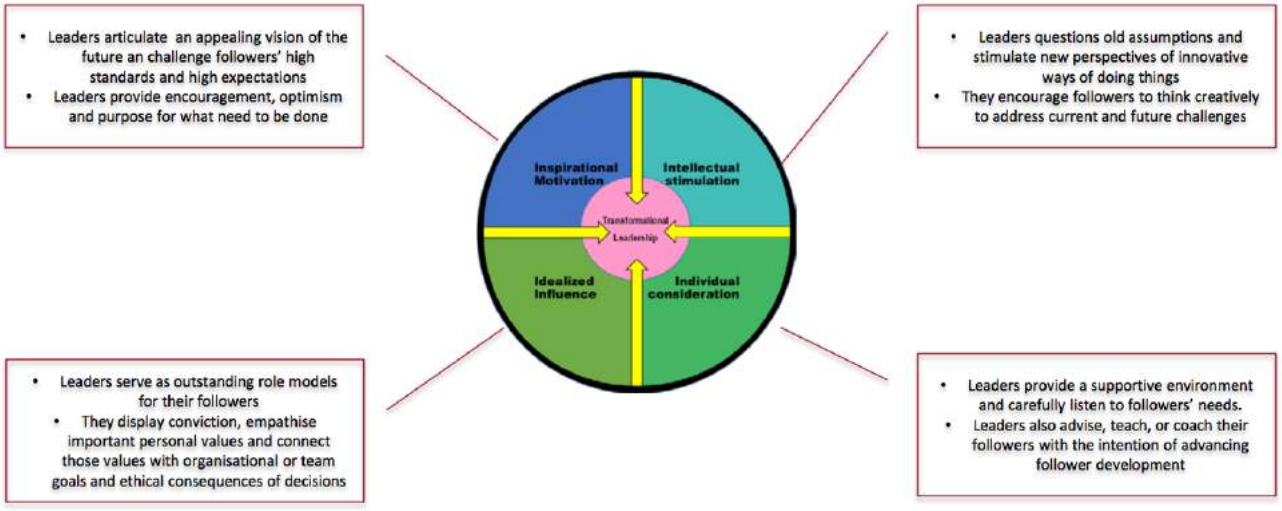
Situational Leadership Theory:

- **Diagnose:** Understand the situation you are trying to influence
- **Adapt:** Adjust your behaviour in response to the contingencies of the situation
- **Communicate:** Interact with others in a manner they can understand and accept
- **Advance:** Manage the movement
- The essence of this is that you change for your staff depending on their needs.



Graph – your style as a leader
Bar – development of the employee

Transformational Leadership:



Inspirational Motivation:

- Leaders articulate an appealing vision of the future and challenge follower's high standards and high expectations
- Leaders provide encouragement, optimism, and purpose for what needs to be done.

Intellectual Stimulation:

- Leaders question old assumptions and stimulate new perspectives of innovative ways to do things.
- Encourage followers to think creatively to address current and future challenges

Individual Consideration:

- Leaders provide a supportive environment and carefully listen to follower's needs
- Leaders also advise, teach, or coach their followers with the intention of advancing follower development.

Idealised Influence:

- Leaders serve as outstanding role models for their followers
- They display conviction, empathise important personal values and connect those values with organisational or team goals and ethical consequences of decisions.

Competencies of Good Leadership:

- Model the way – Set the example by aligning actions with shared values
- Inspire a shared vision – enlist others in a common vision by appealing to shared aspirations
- Challenge the process – search for opportunities by seeking innovating ways to change, grow and improve and experiment and take risks
- Enable others to act – foster collaboration by promoting cooperative goals and strengthen others by sharing power
- Encourage the heart – recognise contributions by showing appreciation for individual excellence and celebrate the values and victories by creating a spirit of community

Clinical Leadership Framework NHS:

- Demonstrating personal qualities - Clinicians showing effective leadership needs to draw upon their values, strengths and abilities, to deliver high standards of care.
  - Recognize and articulate their own values and principles, understanding how these may differ from those of other individuals and groups.
  - Identify their own strengths and limitation, the impact of their behavior on others, and the effect of stress on their own behavior
  - Identify their own emotions and prejudices and understand how these can affect their judgement and behavior
  - Obtain, analyse and act on feedback from a variety of sources

The 'Big 5' Personality Traits:

- **Openness –** Open to new ideas and experiences – correlated with improvement of others and yourself
- **Conscientiousness –** Good predictor of work performance, however this may lead to perfectionism and a workaholic
- **Extraversion –** Where does your drive come from?
- **Agreeableness –** High scoring tends to have an optimistic view and gets along well with others
- **Neuroticism –** Moody and experience emotions such as anxiety

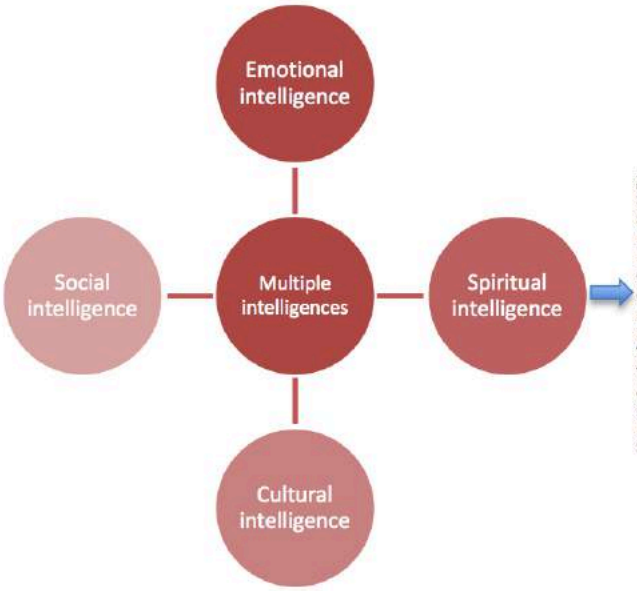
Myers-Briggs Personality and Behaviour Types:

Locus of Control – Internal v External:

- More likely to take responsibility for their behaviour
- Have lower absenteeism rates
- Can cope with higher levels of stress
- Hold higher level jobs
- Are promoted more quickly
- Are motivated to achieve and make greater attempts to control their environment

Multiple Intelligences and Leadership:

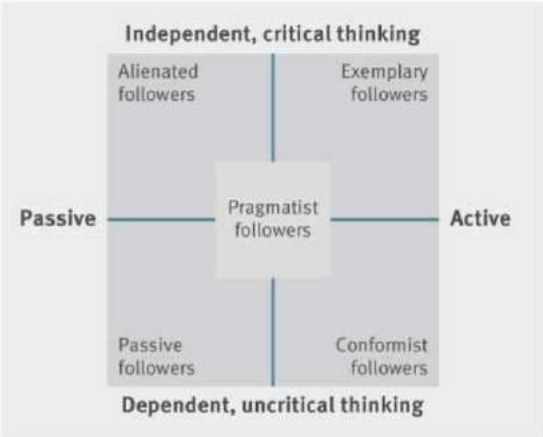
- **Emotional Intelligence:** the capacity to be aware of, control, and express one's emotions, and to handle interpersonal relationships judiciously and empathetically.
- **Spiritual Intelligence:** equals intellectual intelligence and emotional intelligence, when exercised with presence.
- **Cultural Intelligence:** the capability to relate and work effectively across cultures
- **Social Intelligence:** self- and social-awareness, evolved social beliefs and attitudes, and a capacity and appetite to manage complex social change.

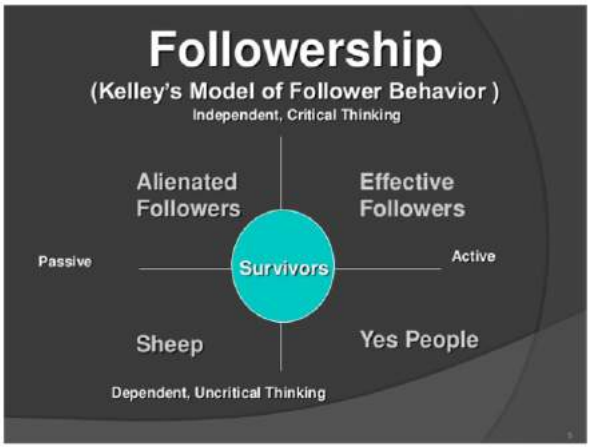


Zohar's 12 principles of spiritual intelligence

Self-awareness: Knowing what I believe in and value, and what deeply motivates me.
Spontaneity: Living in and being responsive to the moment.
Being vision- and value-led: Acting from principles and deep beliefs, and living accordingly.
Holism: Seeing larger patterns, relationships, and connections; having a sense of belonging.
Compassion: Having the quality of "feeling-with" and deep empathy.
Celebration of diversity: Valuing other people for their differences, not despite them.
Field independence: Standing against the crowd and having one's own convictions.
Humility: Having the sense of being a player in a larger drama, of one's true place in the world.
Tendency to ask fundamental "Why?" questions: Needing to understand things and get to the bottom of them.
Ability to reframe: Standing back from a situation or problem and seeing the bigger picture or wider context.
Positive use of adversity: Learning and growing from mistakes, setbacks, and suffering.
Sense of vocation: Feeling called upon to serve, to give something back.

The Significance of Followership:





- There are four types of followers:
  - Passive
  - Active
  - Dependent, uncritical thinking
  - Independent, critical thinking
- The top right (exemplary followers) are active and independent/critical thinkers.
- Alienated followers are very passive and independent thinkers (top left), they don't analyse. They are lost to the organisation.

Week 3 – Understanding Yourself as a Leader:

Paramedic Leadership:

- **Supportive:** The leader takes the role of the motivator, leading from the front. Enables leaders to use persuasion with their staff and encourage them to have high standards.
- **Coaching:** Involves a large proportion of contact time and involvement on the part of the leader with the paramedics in the field. It is most beneficial to those being led when there are gaps in knowledge, skills or professionalism.
- **Delegating:** Offers guidance and direction, but only as and when required by the paramedics themselves. It allows the leader to perform in a more of a consultancy role than a direct hands-on leadership role.
- **Directing:** Involves the complete taking over of patient care in a challenging or difficult situation.
- A good leader is just as interested in having a positive influence on their staff's development as they are in developing their own portfolio.
- The most successful leadership theories are the ones that possess shared responsibility for success within an organisation.
- **Shared and distributed leadership:** Appropriate when complex tasks and highly independent roles are involved. A charismatic leader usually takes over a situation and establishes new goals and expectations.
- **House's path-goal theory:** Warns the leader not to rise above or positive themselves with power; it instead remains us all that our core role as leaders is to assist our subordinates in the defining of goals before assisting them to achieve these goals in an efficient and effective manner.
- **Transformational leadership:** Encouragement of inspiration and motivation, its offer of intellectual stimulation and its high levels of individual consideration.
- **Transactional leadership:** Empowering those who are reluctant to be led, offering reward as a result of responding to instruction.
- All leaders need to be effective in four key areas:
    - **Framing:** Allows the leader to take account of culture, history and long-term underlying issues.
    - **Consistent approach:** Represents a standard of behaviour
    - **Implementing strategic plans:** Identifying risks and factors for success
    - **Embedding:** Monitor and evaluate outcomes

Situational Leadership:

- Situational leadership simply states that there is no one best leadership style for all situations. The leadership style that is best for a particular situation depends on the employee's skill set and attitude.
- Key elements:
    - Identify employee readiness (competence and confidence)
    - Match your leadership style to the employee based on their readiness

Psychological Influences on Leadership Style:

- **The big 5 personality dimensions:** Introversion and extroversion, agreeableness, conscientiousness, emotional stability and openness to experience.

- **Myers-Briggs personality types:**
  - Extraversion/introversion – how we focus our attention
  - Sensing and intuition – how we take in information around us
  - Thinking and feeling – how we evaluate information and make decisions
  - Control, judgement and perception – lifestyle orientation
- Internal locus – leaders who believe they can control their own lives
- External locus – what happens is out of their control
- **Machiavellianism:** Acquisition and manipulation of power – controlling others
- **Levels of conflict:**
  - Intrapersonal – conflict within the individual
  - Interpersonal – individual to individual conflict
  - Inter-group conflict
  - Inter-organisational conflict

Week 4 – Leadership in Ambulance Services:

Leadership:

- Leadership must occur at all levels of an ambulance service or industry, and that it can be practiced by a graduate intern as much as by a station manager and senior manager.
- 'Clinical leadership' can occur in different situations but is not simply scene and people management while on a job.
- Personality and traits do not determine the type or quality of leadership you might engage in but increased awareness these will enable you to self-regulate and adapt.
- There is no right leadership style or approach
- Leadership is as much about the follower as it is the leader

Roles and Responsibilities:

- Across jurisdictions the role of ambulance service organisations serves an integral part of the health system. The role of paramedics is expanding to include the assessment and management of patients with minor illnesses and injuries to avoid transport to hospital.

11 Ambulance services

The focus of performance reporting in this chapter is on ambulance service organisations, which are the primary agencies involved in providing emergency medical care, pre-hospital and out-of-hospital care, and transport services.

Ambulance services aim to promote health and reduce the adverse effects of emergency events on the community. Governments' involvement in ambulance services is aimed at providing emergency medical care, pre-hospital and out-of-hospital care, and transport services that are:

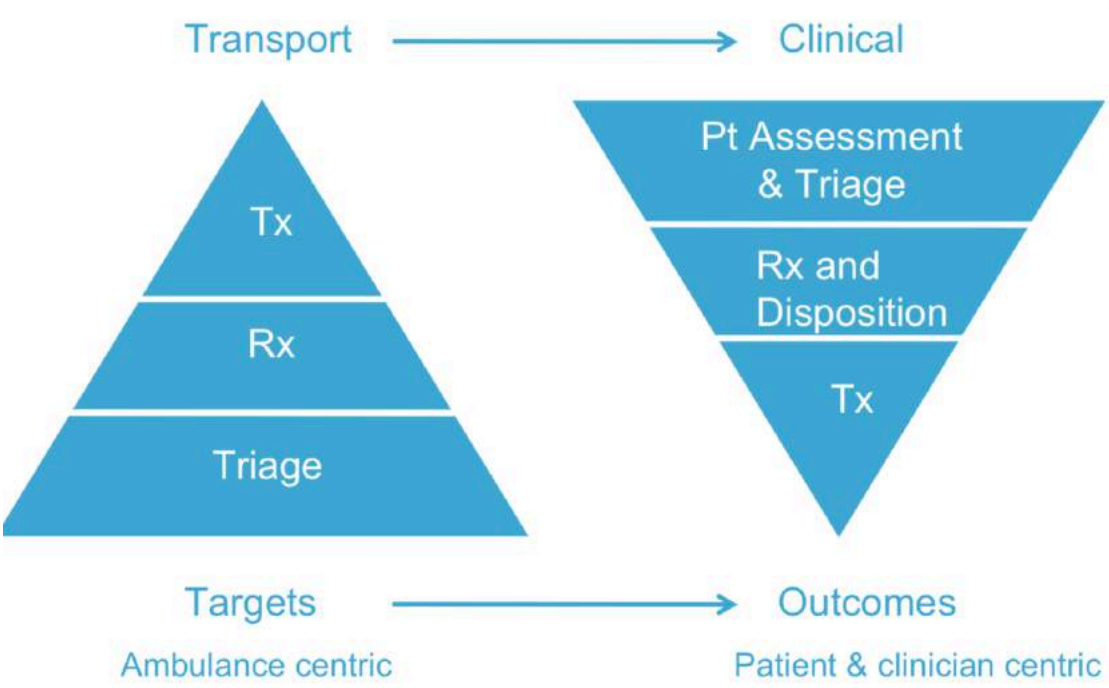
- accessible and timely
- meet patients' needs through delivery of appropriate health care
- high quality – safe, co-ordinated and responsive health care
- sustainable.

Governments aim for ambulance services to meet these objectives in an equitable and efficient manner.

- Transport fees are the only revenue that ambulance receive

Context of Service Delivery:

- Expectations are changing as ambulance is being challenged to move from primarily a transport model to the need for a more definitive pre-hospital medical treatment/primary health and social care model.
- Traditionally, the ambulance service has been seen primarily as a call handling and transportation service, encompassing some aspects of patient care. Increasingly however, it is recognised as having a wider role, and as being pivotal to the performance of the entire urgent and emergency care system.



What do Paramedic Clinical Leaders Look Like in a Transport Organisation vs a Clinical Organisation?

- Approachable and open
- Seen to be displaying their values and beliefs
- Effective communication
- Positive clinical role models
- Empowered / decision makers
- Visible
- Clinically competent and clinically knowledgeable

Barriers to Clinical Leadership Inherent to an Ambulance Service:

- Executive and senior management level – performance, financial, KPI's
- Frontline management
- Direct patient care

Compassionate Leadership:

- Sustaining the NHS as a culture of high-quality compassionate leadership at every level and in interactions between all parts of the system – from national leaders to local teams.
- Such leadership will help us to begin to address the problems the service faces because top down national solutions are not working. Meanwhile, patient care and staff health are being undermined
- Compassionate leadership creates the conditions where the collective good – the needs of patients and communities and staff well-being and development – are prioritised over individual agendas, regardless of status, aggression or undermining.
- Such leadership creates the conditions where it is possible to identify and challenge inappropriate use of power, hierarchy or control over resources that are inconsistent with the values and vision of our health services.

- **Attending:** Paying attention to staff – "listening with fascination"
- **Understanding:** Shared understanding of what they face
- **Empathising**
- **Helping:** Taking intelligent action to help or serve
- Staff view of leaders → patients' views of care quality, respect and dignity
- Staff satisfaction → patient satisfaction with their care
- High work pressure → less compassion, privacy, respect
- Poor staff well-being → poorer care quality and financial performance
- Enlightened people management practices → lower patient mortality

Effective Followers:

- They manage themselves well
- They are committed to the organisation and to a purpose, principle, or person outside themselves.
- They build their competence and focus their efforts for maximum impact
- They are courageous, honest and credible

Congruent Leadership:

- **Congruent leadership theory** is based on a match between the clinical leaders' actions and their values and beliefs about care and nursing.
    - Congruent leadership is based on the leader's values, beliefs and principles.
    - They are more concerned with empowering others, than with their own power or their own prestige
    - Nurses seek out or follow clinical leaders who are more inclined to display or hold values and beliefs that they themselves hold.
    -
- Transformational leadership is strongly connected to the process of addressing the needs of followers, so that the process of interaction increases the motivation and energy of others
    - It involves setting directions, establishing a vision, developing people, organizing and building relationships.

Perceptions of Clinical Leadership in the St. John Ambulance Service in WA:

- He goes on through to define a clinical leader as 'a nurse directly involved in providing clinical care that continuously improves the care through influencing others.'
- Clinical leaders were involved in team work, new ideas, were great communicators and involved others appropriately.
- Most didn't care where the experience was from or what sort of experience it was.

Week 5 – Team and Group Dynamics:

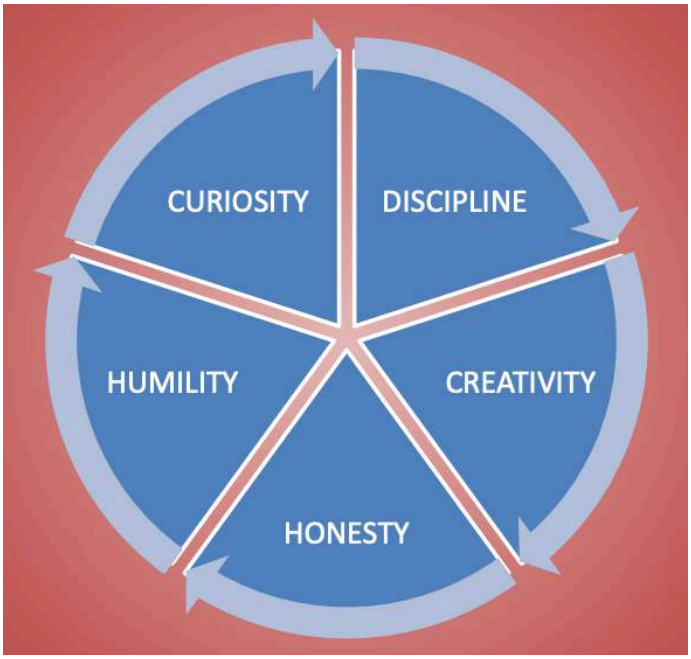
What is Team Work?

- The combined action of a group
- Elements of good teamwork – shared mental model, effective communication (closed loop), active listening, empowering each other, build trust, share values and have a scope for error
- Team work between – ambulance education teams, operations centre, management

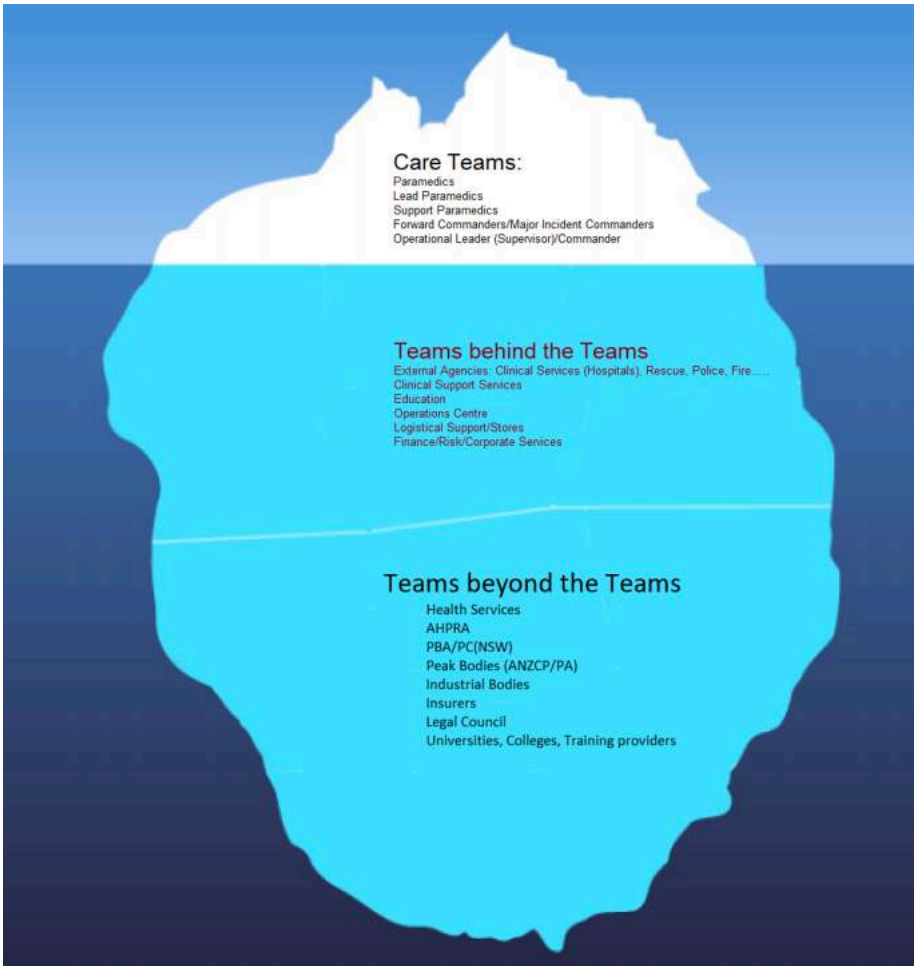
Team Roles, Goals and Functions:

- Roles, goals and functions of the multidisciplinary team members are clearly negotiated and defined to ensure optimum performance.
- **What defines team roles in paramedicine?**
  - Job description – list of roles
  - Organisational hierarchy
  - Ambulance service act
  - Regulations
  - Skills allocation in protocols
- **What are common roles in OOH care?**
  - Private medical events
  - Military
  - Royal flying doctors
- Common team members – doctors, EMT, first aid
- **What are roles, goals and functions between State Ambulance services and private providers?**
  - Legal competencies vary
  - Private organisations can apply for specific authorities

Health Team Values:



Team Models and Functions:

- **Simplistic Model:**
  - Hierarchical leadership chain
  - Followers (paramedic)
- **Complex Models:**
  - 

Types of Ambulance Teams:

- The two-person ambulance crew:
  - Early career
  - Mixed career
  - Skill levels and responsibilities
  - Students and ride-alongs
  - Volunteers
- The back-up crew:
  - Assist load / MPV
  - ICP's
- Inter-agency:
  - Mental health teams
  - Medical support
  - Major incident responses
- Multi agency responses:
  - Police, fire, rescue, volunteers

New Teams in Paramedicine:

- Alternate employers and non-traditional roles – agency paramedics and private/public health services
- Venue-based contracts – sporting, public safety, industrial, medical centres, patient transport
- Military medics – reserves, army, navy, air force
- Occupational and mining employment – FIFO contracts, overseas deployment
- Education – tertiary, vocational, volunteer
- Management / policy development roles – NSW health, NHMRC
- Consultancy / advisory
- International development / aid

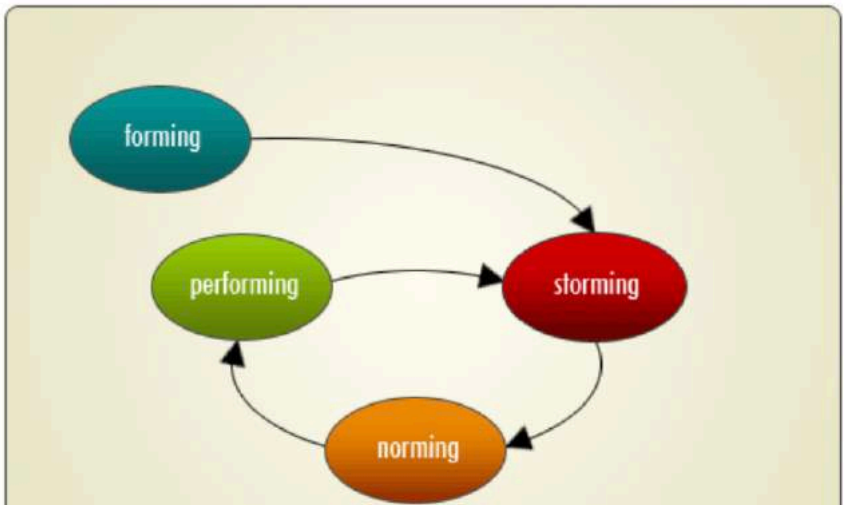
Team Member Roles and Functions:

- There are many roles we play in group settings
- Those roles vary depending on a number of factors and circumstances

Table 21-1 *Group Roles*

ROLE	FUNCTION
Maintenance Roles	
Encourager	To be a positive influence on the group
Harmonizer	To make/keep peace
Compromiser	To minimize conflict by seeking options
Gatekeeper	To determine the level of group acceptance of individual members
Follower	To serve as an interested audience
Rule maker	To set standards for group behaviors
Problem solver	To solve problems to allow the group to continue its work
Task Roles	
Leader	To set direction
Questioner	To clarify issues and information
Facilitator	To keep the group focused
Summarizer	To state the current position of the group
Evaluator	To assess the performance of the group
Initiator	To begin group discussion

Group Dynamics and Team Behaviour:



- **Forming:** The team has just been introduced and everyone is overly polite and pleasant. At the start, most are excited to start something new and to get to know the other team members.
- **Storming:** In the storming stage, the reality and weight of completing the task at hand have now hit everyone. The initial feelings of excitement and the need to be polite have likely worn off.
- **Norming:** During the norming stage, people start to notice and appreciate their team members' strengths. Groups start to settle into a groove. Everyone is contributing and working as a cohesive unit.
- **Performing:** In the performing stage, members are confident, motivated and familiar enough with the project and their team that they can operate without supervision. Everyone is on the same page and driving full-speed ahead towards the final goal.
- **Adjourning:** Once a project ends, the team disbands

Other (Patient-Risking) Group Dynamics and Team Behaviours:

- **Risky shift:** Groups assume greater risk than individuals – the group takes the risk
- **Group think:** Group self-interest over rides formal or legitimate group function – so the group looks good
- **Power and personal agendas:** Subvert formal or legitimate group function – own gain
- **Apathy, disinterest and burnout:** Leads to loss of motivation, direction, cohesion and causes poor performance and disintegration

Hackman – Improving Group Success:

- Being a real team
- Compelling direction
- Enabling structure
- Supportive context
- Expert coaching

Promoting a Positive Team and Organisational Culture:

- 3 essential elements for group performance:
  - Mutual trust
  - Strong sense of group identity
  - Sense of group efficacy (power and purpose)
- Values and vision are also seen by authors as imperative
- Embodying the positive vision and values of the team culture we wish to create lies at the heart of congruent leadership

10 Principles of Good Interdisciplinary Teamwork:

- Positive leadership and management attributes
- Communication strategies and structures
- Personal rewards, training and development
- Appropriate resources and procedures
- Appropriate skill mix
- Supportive team climate
- Individual characteristics that support interdisciplinary teamwork
- Clarity of vision
- Quality and outcomes of care
- Respecting and understanding roles

Dealing with Conflict:

- Conflict can arise in complex working environments
- Workplace conflict can be usually resolved quickly and simply with a chat
- Unresolved conflict leads to emotional distress, maladaptive behaviour, poor performance and poor patient consequences
- Registered paramedics are required to maintain collaborative working relationships with fellow healthcare workers.

Resolving Conflict:

- Have the chat (Straight talk)
- Mediated interviews
- Counselling

As the speaker:	As the listener
1. State the purpose of the conversation; 2. Describe the behaviour specifically; 3. Describe the effect of the behaviour on you; 4. Give the other person an opportunity to respond; 5. State what you would like them to do differently; and 6. Return responsibility to the person and offer support.	1. Have the conversation; 2. Act Respectfully; 3. Clarify critical information; 4. Don't argue thoughts, feelings or perceptions; 5. Respect reasonable requests; and 6. Cut the other person some slack.

Professional Accountability:

- The Paramedicine Board of Australia *Professional Capabilities for Registered Paramedics* present you with a number of professional responsibilities that impact on teamwork. For example, you are obligated to:
  - Make a notification about the health (impairment), conduct or performance of a registered health practitioner that may be placing the public at risk; as well as your own impairments to practice
  - Collaborate with other health practitioners
  - Participate in the mentoring, teaching and development of others

Week 5 – Team Tribes and Patient Safety Reading:

Features of Effective Teams:

- Recent evidence suggests that improvement in teamwork in healthcare can lead to significant gains in patient safety, measured against efficiency of care, complication rate and mortality. Interventions to improve teamwork in healthcare may be the next major advance in patient outcomes.
- Five key dimensions of effective teams: team leadership, mutual performance monitoring, backup behaviour, adaptability and a team orientation.
    - These are coordinated by the underpinning mechanisms of mutual trust, closed-loop communication and shared mental models.
- Shared mental models have been identified as one of the critical underpinning mechanisms for effective teamwork in general and specifically in healthcare.
    - They lead to a common understanding of the situation, the plan for treatment, and the roles and tasks of the individuals in the team.

Information Sharing:

- Information sharing positively predicted the performance of the team.

Seven Interventions to Improve Team Information Sharing:

- Healthcare must take a multifactorial approach that addresses education, psychology and organisational factors to enhance effective information sharing and therefore reduce harm to patients.
- **Teach Effective Communication Strategies:**
    - Teaching structured methods of communication, such as for handovers, can improve patient outcomes.
    - Strategies include – step-back approach and closed-loop communication
- **Train Teams Together:**
    - Teams who work together should train together
    - Training together can promote better understanding of others' roles
    - Training that includes all members of the team has been shown to improve patient outcomes.
- **Train Teams Using Simulation:**
    - Working together in an immersive simulation can be a powerful intervention to trigger discussion about roles, responsibilities and information sharing around patient management.
    - Simulation, with appropriate post-scenario debriefing, provides insights into how other professional groups think and feel, and a better understanding of how to support each other and maximise everyone's input to patient care.
    - Using simulation is a safe way to practice new communication techniques, and it increases interdisciplinary understanding.
- **Define Inclusive Teams:**
    - Redefine the team of healthcare professionals from a collection of disciplines to a cohesive whole with common goals.
- **Create Democratic Teams:**
    - Structured communication strategies can help to create more democratic teams, where all members are confident of being heard.

    - Each member of the team should feel valued; creating flat hierarchies encourages open team communication.
- **Support Teamwork with Protocols and Procedures:**
    - Use procedures that encourage information sharing among the whole team, such as checklists and briefings
- **Develop an Organisational Culture Supporting Healthcare Teams:**
    - Senior champions and department heads must recognise the imperative of interprofessional collaboration for safety.

Week 5 – Followership Reading:

Followership:

- Followership is the act or condition of following a leader, largely by people in subordinate positions to those in senior ones.
- Is a process whereby followers engage constructively in critical thinking and interact with and support the leader to achieve a task
- Passive followers: Followers who are not engaged with their organisation or task and do not apply independent critical thinking
- Conformist followers: Always support the team leader and may work hard, but they do not consider alternative options and may not make decisions without guidance from the leader.
- Alienated followers: Have high levels of critical thinking but are disengaged from their organisation and task
- Exemplary follower: Will apply constructive critical thinking and interact with the group and the leader.
- Pragmatic followers: Will move between the various styles during a task.

Avoiding Group Think:

- When working in a group it is important that leaders and followers do not succumb to group think, which is where the culture of the group is such that everyone in it thinks about and analyses things in the same way.

Week 5 – Experiences in Becoming a Paramedic Reading:

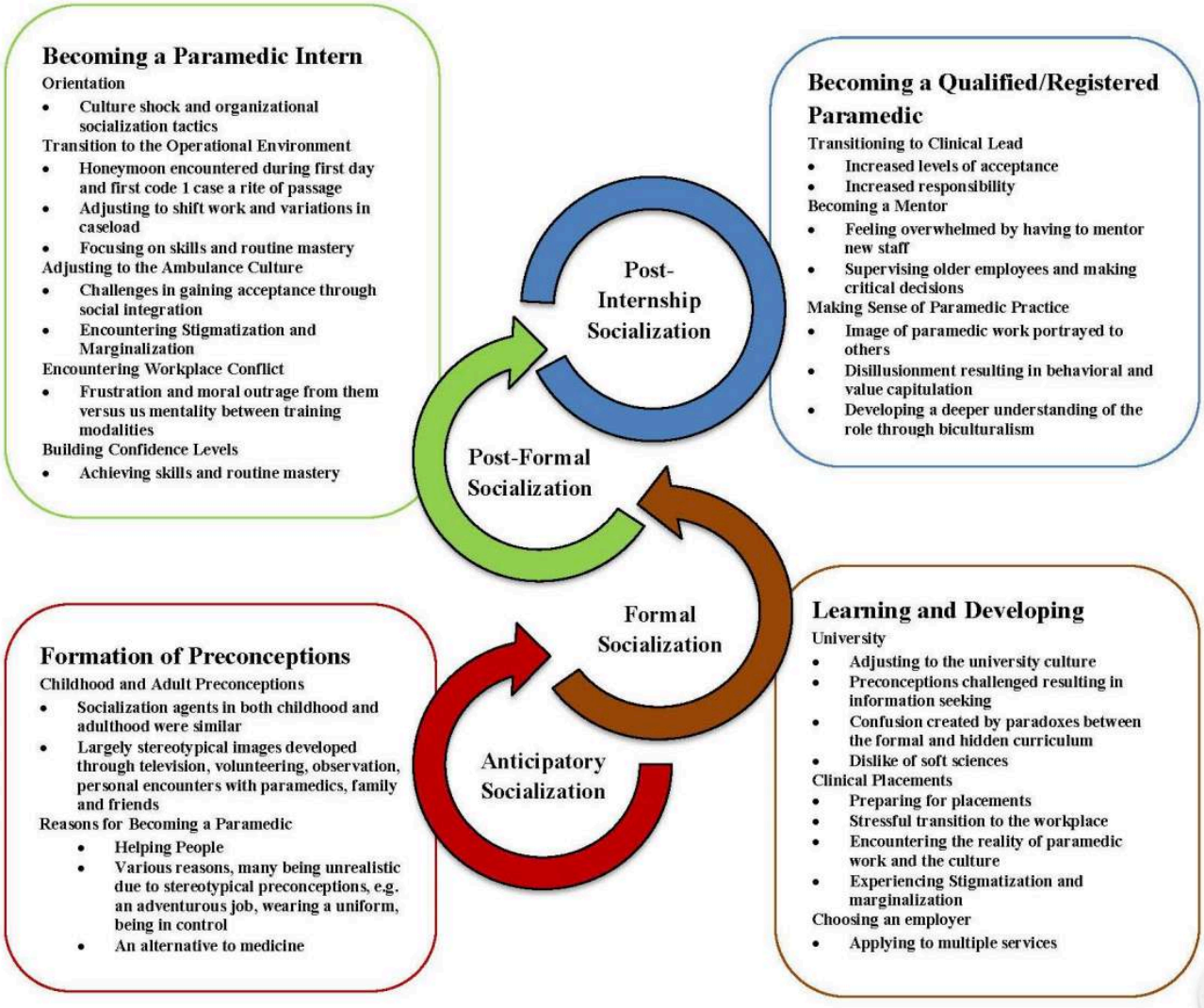
Professionalisation:

- Professional socialization is the process by which people obtain the values, attitudes, knowledge and culture of a profession
- Organizational socialization is concerned with the tactics used by people in an organization to teach new employees about their position, status and role in the workplace

Professional Socialisation:

- **The anticipatory stage**: Where the individual forms stereotypical preconceptions about the profession during childhood and early adulthood.
    - Based on socialisation agents such as influence of media

- **The formal stage**: Occurs when the individual further changes their perceptions about the profession while undertaking university studies and completing clinical placements in the workplace.
    - Through clinical placements, students observed the ambulance culture first hand, and learned about the responsibilities associated with being a paramedic.
- **The post-formal phase**: Focuses on the transition from university study to professional. Graduates are required to negotiate workplace culture and politics while they adjust to their new profession.
    - Many interns reported experiencing an initial culture shock, as the ambulance culture was vastly different to the university environment.
    - Honeymoon phase: interns felt relieved to have finished their university studies and were proud to wear an ambulance uniform.
- **The post-internship phase:** Transition from graduate to fully qualified paramedic
    - Second honeymoon phase: greater respect from other clinicians – only short lived due to added responsibilities



Week 5 – Working as a Team Reading:

Paramedics and Team Working:

- Effective leadership requires individuals to work with others in teams and networks to deliver and improve healthcare services and as such working with others forms one of the core domains within the Leadership Framework.
- Benefits of teamwork: improved communication, improved coordination and service delivery and timely referral.
- Collaborative practice also provides paramedics with the opportunity to raise their professional status.

What are Teams?

- A team is a small number of people with complementary skills who are committed to a common purpose, performance goals and approach for which they hold themselves mutually accountable.
- Team members have defined roles and complementary skills including:
  - Technical or functional expertise
  - Problem solving and decision-making skills
  - Interpersonal skills

Types of Teams:

- **Multi-:** Several organisations or professional groups contribute to the team
- **Inter-:** Joint working between members of two or more professions
- **Trans-:** Professionals cross disciplinary boundaries and take on and engage in activities usually associated with another professional group.
- **Agency:** An organisation that provides a particular service
- **Professional:** Membership of the team is limited to members who are regulated by a professional or regulatory body
- **Disciplinary:** A specific branch or field of practice, associated with specialist professional roles or a subspecialty within a profession
- **Collaboration:** The working together of more or less equal partners to achieve something that neither member could achieve alone
- **Partnership:** Mutually beneficial to each member
- **Team work:** A cooperative effort by the members of a group or team to achieve a common goal.

Team Development and Group Dynamics:

- Tuckman's model of group development:
  1. **Forming** – initial coming together of a group, define team objectives
  2. **Storming** – team members challenge each other, question issues and feasibility of objectives. Enables the team to establish common values and objectives.
  3. **Norming –** conflict must be replaced by listening and problem solving, the team starts to function in harmony
  4. **Performing** – team is at its most effective and performing
  5. **Adjourning** – end or change in a team's working life

Team Roles:

- Team roles are concerned with group relations rather than the function that the team has to perform.
- **Team role theory – Benne and Skeat's:**
    1. Those that fulfil group tasks
    2. Those that maintain group cohesion
    3. Those that relate to the personality and pursuit of personal needs of the individual
- **Team role theory – Belbin (1981):**
    1. Action-orientated roles
    2. People-orientated roles
    3. Cerebral roles
- Belbin – A team role is the characteristic manner in which a team member interacts with other members of the team facilitating the progress of the team as a whole.

Week 5 – Managing and Leading Change Reading:

Leading a Team Through Change:

- Change is a process that is driven by forces that motivate a person or an organisation to consider what needs altering
- Energy for change is the capacity and drive of a team, organisation or system to act and make the difference necessary to achieve its goals.
- **Planned change –** can arise as a result of organisational restructuring and changes to infrastructures
    - Planned change is when the leader intentionally uses their knowledge and skills to instigate change in an organised manner
- **Unplanned change –** can result from unpredictable workforce shortages and poor management
    - Occurs as an accidental change or a change of drift

Leadership Style of the Change Agent:

- Not all leaders are managers, but all managers need to be leaders
- Marquis and Huston (2012) – define a change agent as 'a person skilled in the theory and implementation of planned change, to deal appropriately with these very real human emotions and to connect and balance all aspects of the organisation that will be affected by that change'.
- **Transactional leaders – the top-down approach:**
    - The change agent's experience is likely to be viewed as rather negative.
    - Reactive
    - Focus on individual gain
    - Little or no autonomy for staff
    - Given power to reward or punish team performance
- **Transformational leaders – the bottom-up approach:**
    - The change agent is nurtured to lead within a supportive and empowered environment, the experience being positive.
    - Committed to the organisation's vision or ideal

- Inspirational and autonomous motivator
- Encourages culture of creativity and critical thinking
- Empowers others
- Proactive

Leadership Competency Frameworks:

Change Models:

- **Lewin's change model:**
  - Unfreezing – the team understands the need to change
  - Moving – planned change occurs
  - Refreezing – stabilisation of the change
- **The NHS change model:**
  - Our shared purpose
  - Engagement to mobilise
  - Leadership for change
  - Improvement methodology
  - Rigorous delivery
  - Transparent measurement
  - System drivers
  - Spread of innovation

Week 6 – Patient Safety and Clinical Quality in Ambulance Services:

A Mobile Health Service:

- Expectations are changing as ambulance is being challenged to move from primarily a transport model to the need for a more definitive pre-hospital medical treatment / primary health and social care model.
- Traditionally, the ambulance service has been seen primarily as a call handling and transportation service, encompassing some aspects of patient care. Increasingly however, it is recognised as having a wider role, and as being pivotal to the performance of the entire urgent and emergency care system.

Clinical Governance:

- The way we do things to guarantee quality
- A system through which organisations are accountable for continuously improving the quality of their services and safe-guarding high standards of care.
- This is achieved by creating an environment in which there is **transparent responsibility and accountability** for maintaining clinical standards and by allowing excellence in clinical care to flourish
- ***Clinical governance is a mechanism that enables quality to be placed at the heart of everything that we do as paramedics***

Clinical Quality:

- **Quality improvement: Doing things right**
  - Making sure that intended actions are done thoroughly, efficiently and reliably
- **Evidence-based medicine: Doing the right things**
  - Actions informed by the best available evidence from our clinical knowledge base

Patient Safety – Keeping Patients Safe:

- IOM defines patient safety as “the prevention of harm to patients”

- Emphasis is placed on the system of care delivery that:
    1. Prevents errors
    2. Learns from the errors that do occur
    3. Is built on a culture of safety that involves health care professionals, organisations and patients
- Patient safety is the absence of preventable harm to a patient in the process of our care
- The discipline of coordinated efforts to prevent harm to patients
- In general, the meaning of patient safety is **DO NO HARM**
- The focus is not about stopping humans making mistakes but stopping the mistake harming the patient
- **Safety** has to do with lack of harm – **quality** has to do with efficient, effective, purposeful care that gets the job done at the right time for the right cost
- **Safety** focuses on avoiding bad events – **quality** focuses on doing things well
- **Safety** makes it less likely that mistakes happen – **quality** raises the ceiling, so the overall care experience is a better one.

Clinical Governance:

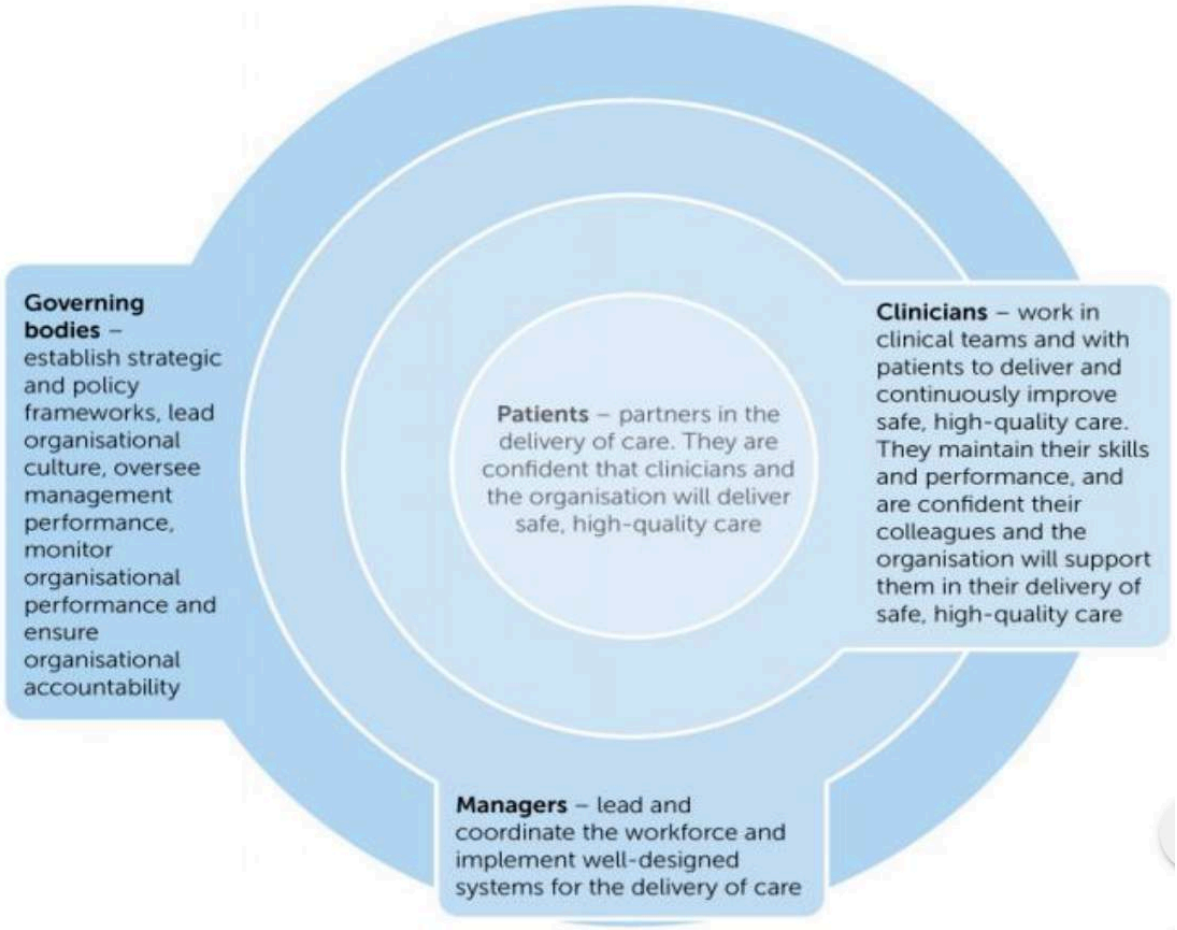
- A weak safety and quality culture, flawed processes of care, and disinterested leadership teams further weaken the ability of health care systems and organisations to ensure provision of safe health care.

The Individual Paramedic's Role:

- Maintain your professional practice standards – know and do things right
    - Ongoing training and education
    - Personal competence and capacity
    - CRM, teamwork and communication
- Follow guidelines and procedures, stay up to date with notifications – do things right

- Identify risks and consider other factors that could impact on performance – take action to prevent or minimise harm from healthcare errors
- Report incidents and hazards as soon as identified – transparency and vigilance
- Help to design/redesign safer systems and get involved in change initiatives – participate
- Open disclosure – truthful, timely, clear communication to patients

Figure 4: Clinical governance roles



Week 6 – Building A Safer Health System Reading:

Medical Errors:

- Medical errors are defined as the failure of a planned action to be completed as intended or the use of a wrong plan to achieve an aim.
- Errors are costly in terms of loss of trust in the health care system by patients and diminished satisfaction by both patients and health professionals.
- More commonly, errors are caused by faulty systems, processes, and conditions that lead people to make mistakes or fail to prevent them.
- Mistakes can best be prevented by designing the health system at all levels to make it safer – to make it harder for people to do something wrong.

Types of Errors:

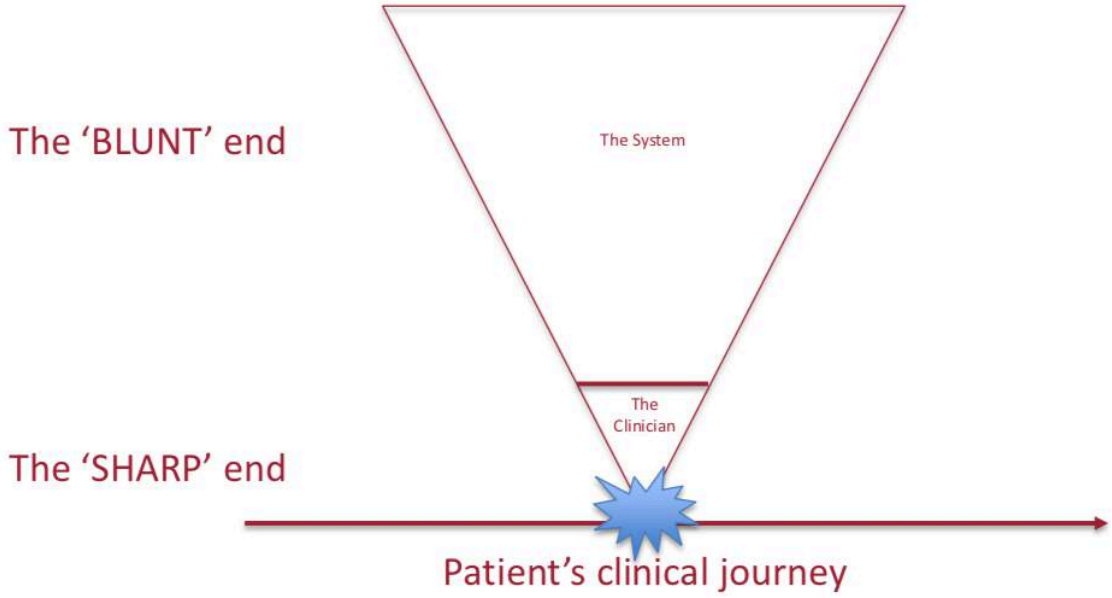
- **Diagnostic –** Error in diagnosis, failure to employ tests, failure to act on results
- **Treatment –** Error in performance, administering treatment, dose or route of a drug
- **Preventive –** Failure to provide prophylactic treatment, inadequate monitoring and follow-up
- **Other –** Failure of communication, equipment failure, other system failure

Strategy for Improvement:

- Establishing a national focus to create leadership, research, tools, and protocols to enhance the knowledge base about safety.
- Identifying and learning from errors by developing a nationwide public mandatory reporting system and by encouraging health care organisations and practitioners to develop and participate in voluntary reporting systems.
- Raising performance standards and expectations for improvements in safety through the actions of oversight organisations, professional groups, and group purchasers of health care.
- Implementing safety systems in health care organisations to ensure safe practices at the delivery level.

Week 7 – Errors in Clinical Practice:

System Error and Human Factors:



- The blunt end = the system
- Most error happens at the 'sharp' end = the clinician

What Factors Contribute to 'Systems Errors'?

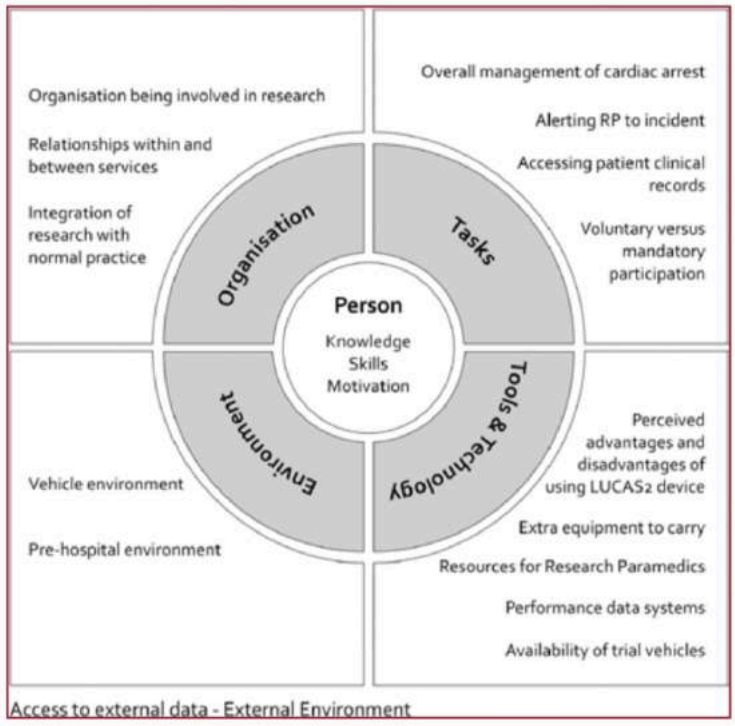
- Poor communication between organisation and the clinician
- The system itself
- Under resourcing / inadequate funding
- Understaffing
- Protocols and inconsistencies
- Business objectives (KPI's) opposed to patient centred care
- Poor layout of kits
- No culture around drug checks

What 'Human Factors' Contribute to Clinical Error?

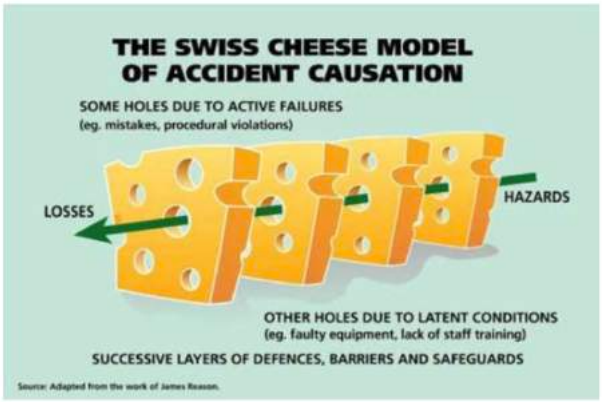
- Human factors refer to environmental, organisation and job factors, and human and individual characteristics which influence behaviour at work in a way which can affect health and safety.
- A simple way to view human factors is to think about three aspects: the job, the individual and the organisation and how they impact on people's health and safety-related behaviour.
- **Dupont's 'Dirty Dozen':**
  - Lack of communication
  - Complacency
  - Lack of knowledge
  - Distraction

- Lack of teamwork
- Fatigue
- Lack of resources
- Pressure
- Lack of assertiveness
- Stress
- Lack of awareness
- Norms

Human Factors Engineering (HFE):

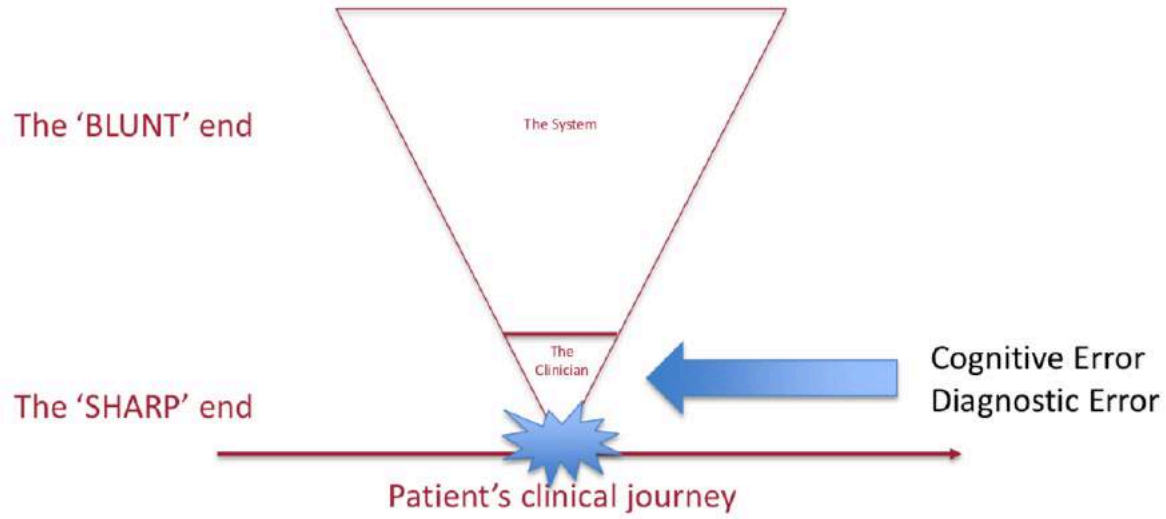
- Human factors engineering is an applied science of systems design that is concerned with the interplay between humans, machines, and their work environments.
- 

Reason's 'Swiss Cheese' Model for Accident and Error:

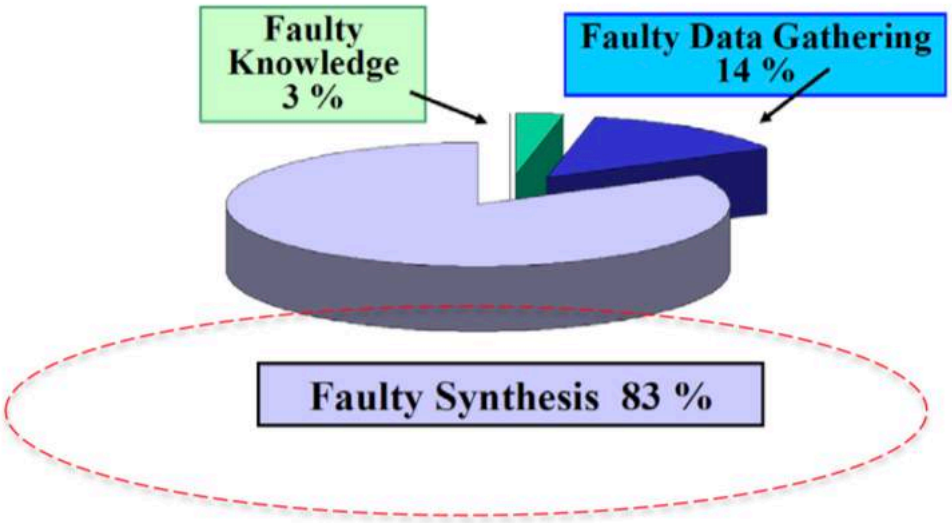


- Model of how accidents happen
- Process – in each layer of the process there are in built mistakes that can occur
- There are multiple safety nets built in so that errors shouldn't get through

Diagnostic Error:



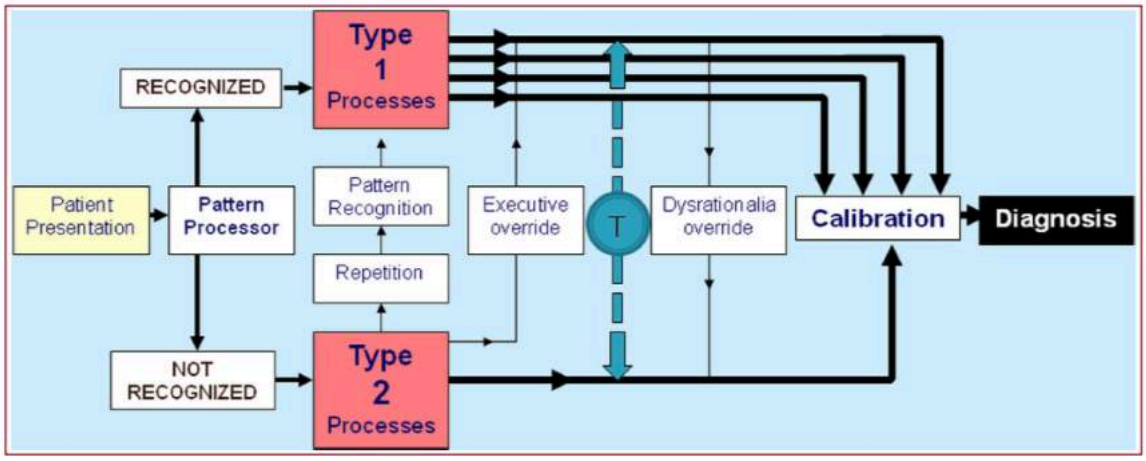
Causes of Cognitive Error:



- Cognitive Errors lead in these areas
- Faulty knowledge – incorrect
- Faulty data gathering – not taking an appropriate history, not enough information to make a good decision
- Faulty synthesis – processing and analysing information

Dual Pathway Theory:

- Type 1 is susceptible to mind tricks, emotion and errors.



Cognitive Dispositions to Respond (CDR) – 'Cognitive Bias':

- **Anchoring:** The tendency to fixate on specific features of a presentation too early in the diagnostic process, and to base the likelihood of a particular event on information available at the outset (i.e., the first impression gained on first exposure, the initial approximate judgement).This may often be an effective strategy. However, this initial impression exerts an overly powerful effect in some people, and they fail to adjust it sufficiently in the light of later information.
- **Ascertainment bias:** Occurs when the paramedic's thinking is pre-shaped by expectations or by what the paramedic specifically hopes to find. Thus, a paramedic is more likely to find evidence of congestive heart failure in a patient who relates that he or she has recently been non-compliant with his or her diuretic medication, or more likely to be dismissive of a patient's complaint if he or she has already been labelled as a ''frequent flyer'' or ''drug-seeking.''
- **Confirmation bias:** A powerful bias, which may seriously confound problem solving and clinical decision making. When a hypothesis is developed on relatively weak or ambiguous data, it may later interfere with superior and more plentiful data. Such subsequent data might not be treated objectively and may be ignored. This particular bias is reflected in a tendency to look for confirming evidence to support the hypothesis, rather than look for dis-confirming evidence to refute it.
- **Fundamental attribution error:** The tendency to blame patients when things go wrong rather than circumstances. Thus, someone's behaviour may be explained by attaching it to the dispositional qualities of a person rather than to situational circumstances. Thus, judgements are made about certain groups of patients e.g., alcoholics, ''frequent flyers,'' or drug-seekers. We hold them responsible for their behaviour, imagining they have as much control over it as we do.
- **Gender bias:** A form of discrimination against women because their practices reflect the values of the men who created the setting, which is often the workplace.
- **Overconfidence bias:** A person's subjective confidence in his or her judgements is reliably greater than the objective accuracy of those judgements, especially when confidence is relatively high.

- **Psych-out error:** occurs when serious medical conditions (e.g. hypoxia, delirium, metabolic abnormalities, CNS infections, head injuries) are misdiagnosed as psychiatric conditions.

Affective Dispositions to Respond (ADR) – 'Affective Bias':

- Most physicians fail to recognise, let alone analyse, their own emotional states in clinical encounters. This repression of feeling misses an important variable in the assessment of a patient's experiences and outcome. The emotional temperature of the doctor plays a substantial part in diagnostic failure and success.
- The literature is quite clear that affect, specifically mood, can also 'intuitively' influence decision-making and performance… From research, we can infer that medical students and practitioners alike who are happy, sad, depressed, anxious, or even angry may unwarily alter their clinical decision-making processes.

Sources of Emotional Influence on Clinical Performance:

- Ambient induced:
  - Transitory emotional states
  - Environmental
  - Stress, fatigue
  - Other influences
- **Clinical situation-induced:**
  - **Counter transference**
  - **Fundamental attribution error**
  - Specific emotional biases
- Endogenous:
  - Circadian, infradian, seasonal mood variation
  - Mood disorders
  - Anxiety disorders
  - Emotional dysregulatory states

Cognition is Intrinsically Linked to Emotion in Clinical Performance:

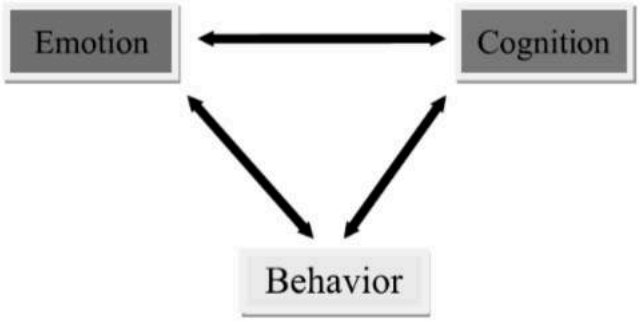


FIGURE 1. Interrelationships of emotion, cognition, and behavior.

Strategies to Overcome Error and Bias:

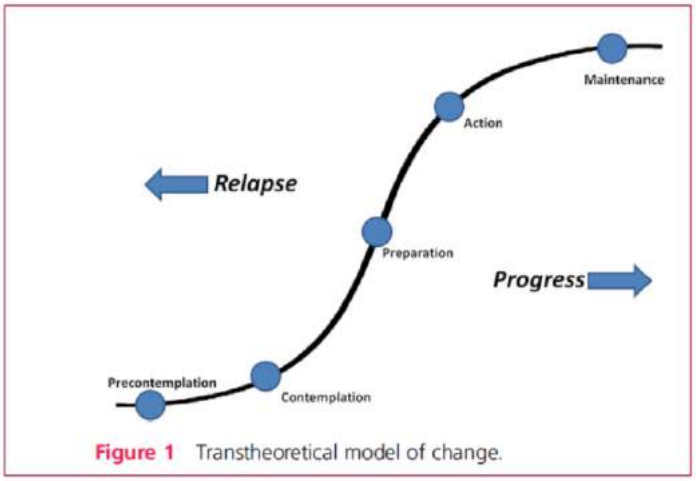


Figure 1 Transtheoretical model of change.

- Education strategies
- Workplace strategies – things that will catch you from making an error in the workplace
- Forcing functions

Metacognition:

- Thinking about how you think
- Reflection in practice and reflection on practice

Real Time Self-Management of Bias at the Point of Care:

Table 1 High-risk situations for biased reasoning

High-risk situation	Potential biases
1. Was this patient handed off to me from a previous shift?	Diagnosis momentum, framing
2. Was the diagnosis suggested to me by the patient, nurse or another physician?	Premature closure, framing bias
3. Did I just accept the first diagnosis that came to mind?	Anchoring, availability, search satisficing, premature closure
4. Did I consider other organ systems besides the obvious one?	Anchoring, search satisficing, premature closure
5. Is this a patient I don't like, or like too much, for some reason?	Affective bias
6. Have I been interrupted or distracted while evaluating this patient?	All biases
7. Am I feeling fatigued right now?	All biases
8. Did I sleep poorly last night?	All biases
9. Am I cognitively overloaded or overextended right now?	All biases
10. Am I stereotyping this patient?	Representative bias, affective bias, anchoring, fundamental attribution error, psych out error
11. Have I effectively ruled out must-not-miss diagnoses?	Overconfidence, anchoring, confirmation bias

Adapted from Graber:[34] General checklist for AHRQ project.
A description of specific biases can be found in Croskerry.[7]

Week 7 – Cognitive Debiasing Reading:

Clinical Decision Making:

- **Type 1 processes:** Fast, usually effective, but also more likely to fail as they are largely unconscious
  - Characterised by heuristics – abbreviated ways of thinking
  - Most biases occur here
  - **Hard-wired processes =** naturally selected – innate heuristics
  - **Emotional processes =** may be evolved adaptations or socially constructed
  - **Over-learned processes =** cultural and social habits
  - **Implicitly learned processes =** through formal training (explicit) or implicit learning which is without intent or conscious awareness
- **Type 2 processes:** Fairly reliable, safe and effective, but slow and resource intensive
  - Takes place under conscious control which may prevent mistakes
  - Biases can only be dealt with by activating this process
- Quality of decision making is influenced by:
  - Ambient conditions – context, team factors, patient factors, resources
  - Individual factors – fatigue, cognitive load, decision fatigue, distractions

Cognitive Debiasing:

- Involves stages of change – from a state of lack of awareness to bias, to awareness, to the ability to detect bias, to considering a change, to deciding to change, then initiating strategies to accomplish change, and finally, maintaining the change.
- Educational strategies: Enhance a physician's ability to debias in the future
- Workplace strategies: Getting more information, slowing down strategies
- Supportive environments: exposure control, decision support systems

Week 7 – Emotional Influences in Patient Safety Reading:

Affective Bias:

- How providers feel, their emotional or affective state, may exert a significant, unintended influence on their patients, and may compromise safety.
- It has been demonstrated that the cognitive activity that underlies clinical decision making may be altered by even moderate changes in emotional state, positively or negatively influencing the choice of strategies in decision making and problem solving.
- Countertransference: the ways in which people perceive and think about each other in their day-to-day lives.
- Fundamental attribution error: It is the bias that arises when we try to explain another person's behaviour in terms of the particular qualities (disposition) of that person, rather than as being due to the situational circumstances or setting in which the behaviour has occurred.
- As a general rule, 'hot' (reflexive, current) affect is associated with incomplete consideration of information and leads to poor decisions, whereas 'cold'(anticipated, regulated) affect is more beneficial and associated with better calibrated decisions.

TABLE 1. Sources of Emotional Influence on Clinical Performance

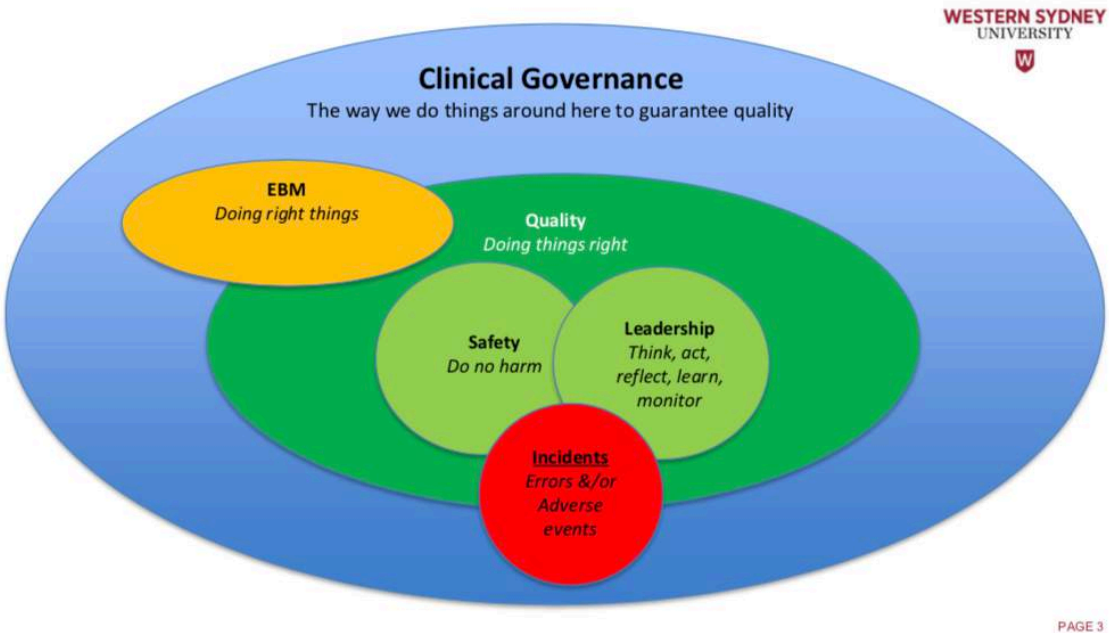
A. Ambient-induced
Transitory emotional states
Environmental
Stress, fatigue
Other influences
B. Clinical situation–induced
Counter transference
Fundamental attribution error
Specific emotional biases
C. Endogenous
Circadian, infradian, seasonal mood variation
Mood disorders
Anxiety disorders
Emotional dysregulatory states

Recommendations and Strategies:

- Raising the level of awareness – understanding of potential impacts of emotions
- Clinical teaching – promote openness about the provider's feelings towards patients
- Specific training in the recognition and de-biasing of emotional errors
- Early identification of emotional and other psychiatric disorders - Mental illness that may dispose a health care provider toward error needs to be promptly detected, diagnosed and managed.
- Combating unconscious emotional dysregulation – recognising triggers

Week 8 – Contemporary Approaches to Analysis and Understanding of Patient Safety Issues:

Clinical Governance:



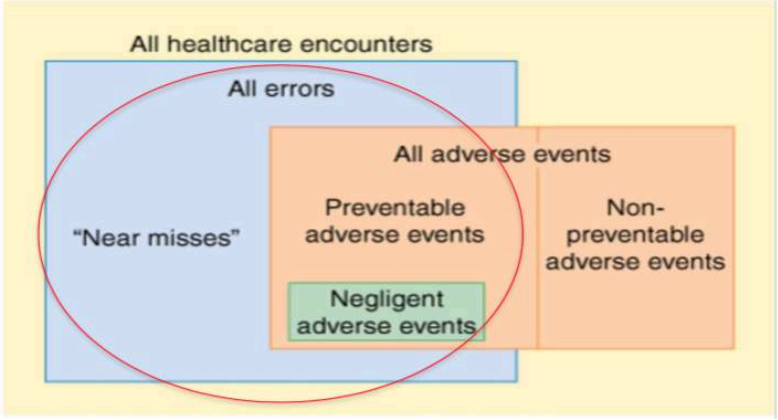
- How do incident impact on the whole system?

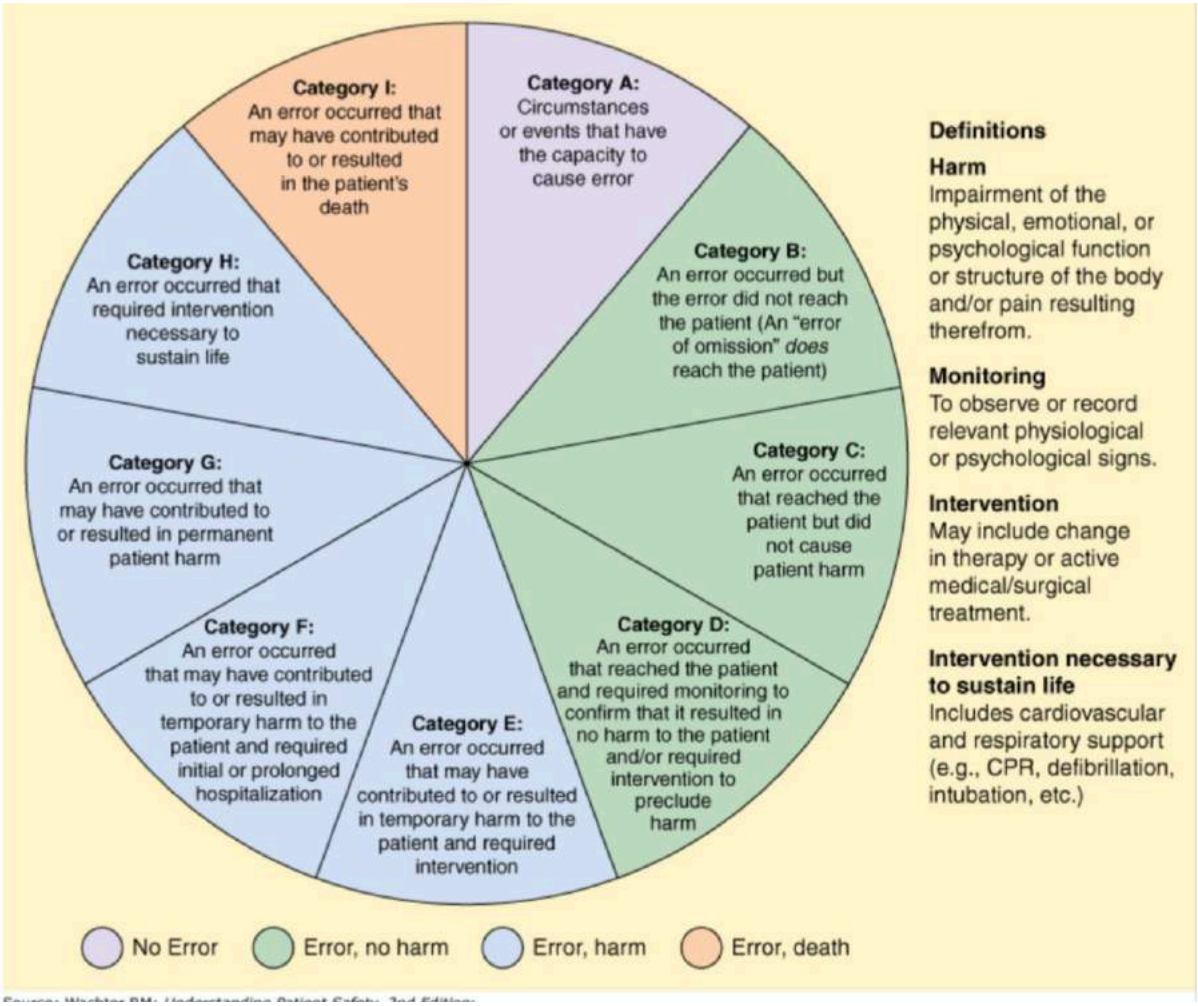
Incident Definition:

- Any unplanned event which causes, or has the potential, to cause harm to a patient
- Any unplanned event resulting in, or with the potential for, injury, damage of other loss. This includes a near miss.
- Unintended physical injury resulting from or contributed to by medical care (including the absence of indicated medical treatment) that requires additional monitoring, treatment, or hospitalisation, or that results in death.

Error Definition:

- The safety literature commonly defines an error as an act of **commission (doing something wrong) or omission (failing to do the right thing)** leading to an undesirable outcome or significant potential for such an outcome.





Error Surveillance:

- **Passive – waiting for something to happen**
- Goal is not data collection but meaningful improvement
- Errors and adverse events that are reported must be put to good use, such as by turning them into stories that are shared within organisations
- Trigger tools – e.g. review cases where naloxone has been administered

Incident Management:

- Each NSW health entity is required to have in place a system to manage incidents based on the following principles:
  - **Openness about failures:** Incidents are reported, and the incident acknowledged without fear of an inappropriate blame. Patients and their families/support persons are offered an apology and told what went wrong any why.
  - **Emphasis on learning:** The system is orientated towards learning from mistakes and consistently employs improvement methods for achieving this
  - **Obligation to act:** The obligation to take action to remedy problems is clearly accepted and the allocation of this responsibility is unambiguous and explicit
  - **Accountability:** The limits of individual accountability are clear; individuals understand when they may be held accountable for their actions
  - **Just culture:** Individuals are treated fairly

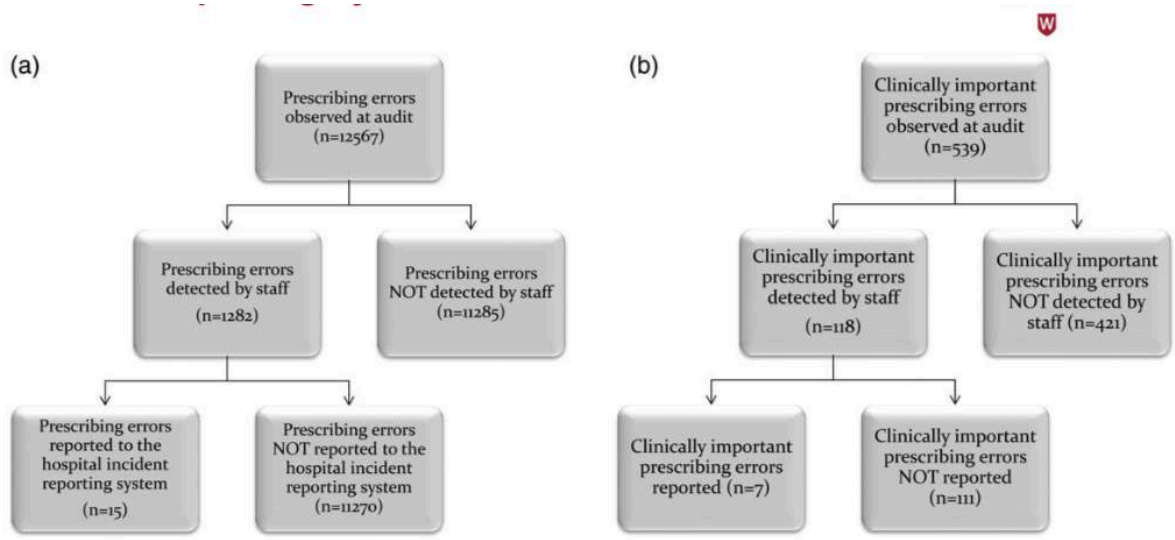
- **Appropriate prioritisation of action:** Action to address problems is prioritised and resources directed to those areas where the greatest improvements are possible
- **Cooperation, collaboration and communication:** Teamwork is recognised as the best defence of system failures and is explicitly encouraged and fostered within a culture of trust and mutual respect.

Just Culture vs No Blame:

- **No blame** = people feel comfortable to put their hand up and admit a mistake
  - Lead to a system that wouldn't call the practitioner out
- **Just culture =** An environment in which people are encouraged to provide essential safety related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour.
- Fairness and accountability
- Zero tolerance for recklessness or wilful negligence

Incident Reporting Systems Features and Issues:

- Self-reporting
- Voluntary
- Burden of reporting
- Fear of disciplinary action
- Fear of confidentiality breaches and embarrassment
- Cynicism – nothing will change
- Unfamiliar with process – "there's a reporting system?"
- **What does frequency of error reports tell you?**
  - Do more reports indicate a good safety culture?
  - Do less reports indicate a decline in errors?
  - Can incident reports indicate error rate?
  - Does a 20% increase in reporting = establishment of reporting culture
  - Does a 20% decrease in reporting = fewer errors occurred
  - Westbrook et al:
    - No relationship between number of reports and actual error rate
    - Hospital with higher reporting number had lower actual error
    - Reports represent an underestimation of actual error
- **Does indicate:**
  - Incident reporting has limitations that must be recognised
  - Extant hazards on which to focus quality improvement and initiate remediation strategies

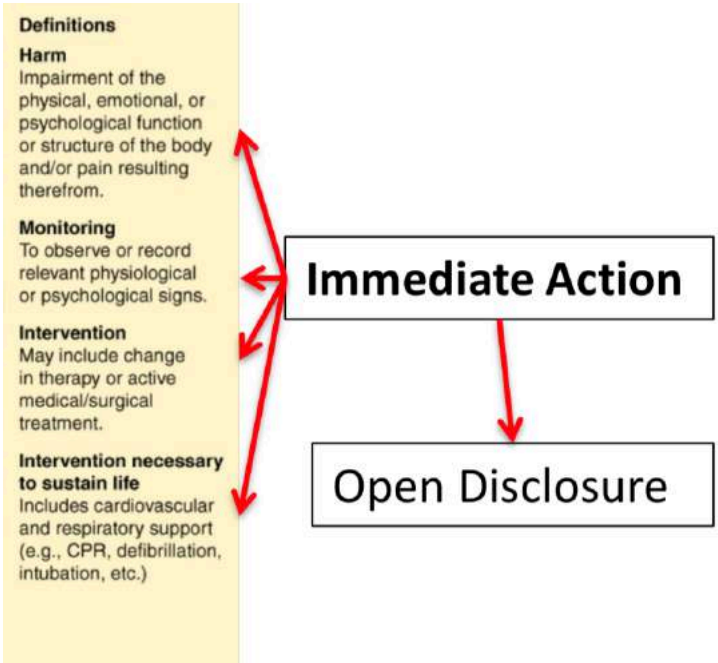


Incident Management – Notification:

- Enter into IIMS – Incident Information Management System
- Initial Severity Assessment Code

Incident Management – Prioritisation:

- Confirm SAC rating
- Report up to ministry any serious incidents, i.e. SAC 1



Categories	
Frequent	Is expected to occur again either immediately or within a short period of time (likely to occur most weeks or months)
Likely	Will probably occur in most circumstances (several times a year)
Possible	Possibly will recur – might occur at some time (may happen every 1 to 2 years)
Unlikely	Possibly will recur – could occur at some time in 2 to 5 years
Rare	Unlikely to recur – may occur only in exceptional circumstances (may happen every 5 to 30 years)

1	**Extreme** risk – immediate action required – Reportable Incident Brief (RIB) for all SAC 1 incidents must be forwarded to the MoH within 24 hours. A Privileged Root Cause Analysis (RCA) investigation must be undertaken for all Clinical SAC 1 incidents with a report being submitted to the MoH.
2	**High** risk – need to notify senior management. Detailed investigation required. Ongoing monitoring of trended aggregated incident data may also identify and prioritise issues requiring a practice improvement project.
3	**Medium** risk – management responsibility must be specified – Aggregate data then undertake a practice improvement project. **Exception** – all financial losses must be reported to senior management.
4	**Low** risks – manage by routine procedures – Aggregate data then undertake a practice improvement project.

NB – An incident that rates a SAC 2, 3 or 4 should only be reported to the MoH if there is the potential for media interest or requires direct notification under existing MoH legislative reporting requirements or NSW MoH Policy Directive.

STEP 3 SAC Matrix

LIKELIHOOD	CONSEQUENCE: Serious	Major	Moderate	Minor	Minimum
Frequent	1	1	2	3	3
Likely	1	1	2	3	4
Possible	1	2	2	3	4
Unlikely	1	2	3	4	4
Rare	2	3	3	4	4

Every incident assessed against the Severity Assessment Code Matrix should be scored separately for both their actual and potential consequence or outcome

<u>Incident Management – Investigation:</u>

- Root cause analysis (RCA) for SAC 1 rating
  - SAC 2,3,4 if serious system issue is suspected (CE or CRG)
- A method of structured risk identification and management in the aftermath of adverse events
- RCA involves a deliberate, comprehensive dissection of an error, laying bare all of the facts and searching assiduously for underlying (“root”) causes rather than being satisfied by facile explanations
- **Root cause analysis (RCA):**
  - They are privileged
    - Division 6C of the Health Administration Act 1982
    - All documents and communications during RCA – cannot be admitted for evidence
    - RCA team members, investigation participants documents cannot be compelled to give evidence
    - Protection from personal liability including defamation
    - Confidentiality – offence to disclose
- **London Protocol:**
  - Not protected from the legal system
  - A reflective investigation process
  - Purpose is to use the indent to reflect on what gaps and inadequacies it reveals in the healthcare system.
  - Presents groups of potential contributory factors considered relevant
  - Not necessarily causal but can be used as a starting point for drilling down to causes
  - SAC 2-4
  - Not privileged

- **Clinical Review and Death Review:**
  - A reflective investigation process
  - Purpose is to use the incident to reflect on what gaps and inadequacies it reveals in the healthcare system
  - Presents groups of potential contributory factors considered relevant
  - Not necessarily causal but can be used as a starting point for drilling down to causes
  - SAC 2-4
  - Not privileged

Incident Management – Classification:

- Confirm final incident type, i.e. SAC level

Incident Management – Analysis:

- Identification of emerging themes and trends contributing to incidents

Incident Management – Action:

- Implementation of recommendations
- KPI's
- Clinical practice improvement projects
- Patient story
- Clinical audit, e.g. P5
- Open disclosure

NSW Ambulance Clinical Governance Framework:

Week 8 - Reporting Systems, Root Cause Analysis, and Other Methods of Understanding Safety Issues Reading:

Overview:

- The systems designed to capture safety issues within a healthcare organization are generally known as incident reporting (IR) systems. Incident reports come from frontline personnel (e.g., the nurse, pharmacist, or physician caring for a patient when a medication error occurred) rather than, say, from supervisors.
- IR systems are passive forms of surveillance, relying on involved parties to choose to report.
- More active methods of surveillance, such as retrospective chart review, direct observation, and trigger tools.

General Characteristics of Reporting Systems:

- *Anonymous reports* are ones in which there is no identifying information asked of the reporter. Although they have the advantage of encouraging reporting, anonymous systems have the disadvantage of preventing necessary follow-up questions from being answered.
- In a *confidential reporting system*, the identity of the reporter is known but shielded from authorities such as regulators and representatives of the legal system (except in cases of clear professional misconduct or criminal acts). Such systems tend to capture more useful data than anonymous systems, because follow-up questions can be asked. The key to these systems, of course, is that reporters must trust that they are truly confidential.
- Finally, in *open reporting systems* all people and places are publicly identified. These systems have a relatively poor track record in healthcare, because the potential for unwanted publicity and blame is very strong, and it is often easy for individuals to cover up errors (even with “mandatory” reporting).

Hospital Incident Reporting Systems:

CHARACTERISTICS OF AN EFFECTIVE REPORTING SYSTEM

- Institution must have a supportive environment for event reporting that protects the privacy of staff who report occurrences.
- Reports should be received from a broad range of personnel.
- Summaries of reported events must be disseminated in a timely fashion.
- A structured mechanism must be in place for reviewing reports and developing action plans.

Reports to Entities Outside the Healthcare Organisation:

- Rather, the goal is the most efficient system that produces the greatest amount of learning and productive change.

Root Cause Analysis and Other Incident Investigation Methods:

- The technique of *root cause analysis* (RCA) involves a deliberate, comprehensive dissection of an error, laying bare all of the relevant facts and searching assiduously for underlying (“root”) causes rather than being satisfied by facile explanations (such

as “the doctor pulled the wrong chart” or “the pharmacist stocked the wrong medicine”).

- Elements of an RCA:
  - Strong leadership and facilitation
  - An interdisciplinary approach
  - Individuals who participated in the case should be invited to “tell their stories”
  - Some institutions routinely invite other frontline workers to RCA’s to help educate them in the process
  - Focus on identifying corrective actions that will prevent further harm
  - Ensure that corrective actions are implemented and sustained, that feedback is provided to those involved, and that learnings from the RCA are shared across the institution

Week 8 – Barriers to Incident Notification in a Regional Pre-Hospital Setting Reading:

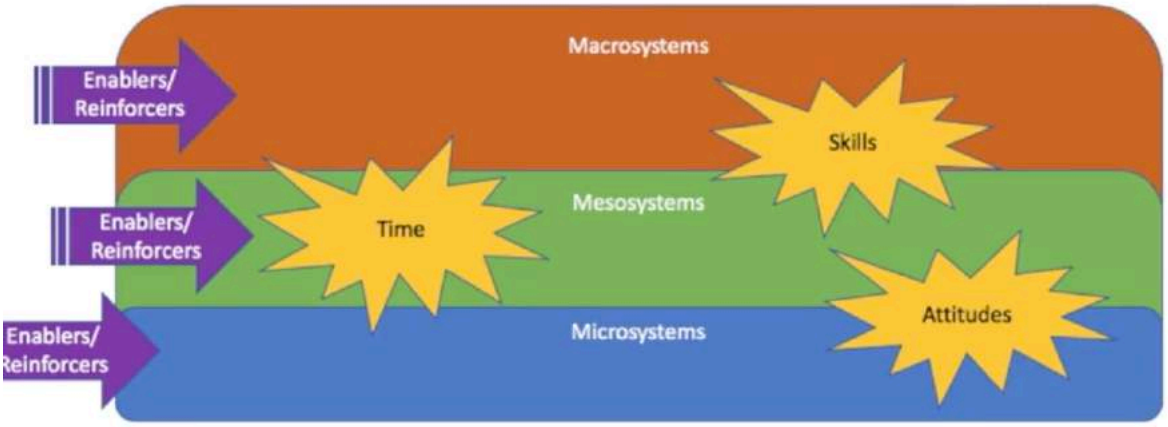
Barriers:

- Burden of reporting:
  - Paramedics felt that they would be less likely to report an incident if they were not able to easily access a mechanism to report the incident, or if a period of time had elapsed following the incident.
- Fear of disciplinary action
- Fear of potential litigation
- Fear of breaches of confidentiality and fear of embarrassment
- Concern that ‘nothing would change’ even if the incident was reported
- Lack of familiarity with the process
- Impact of ‘blame culture’

Week 10 – Evidence-Based Practice in Leadership Lecture:

Evidence-Based Practice:

- Evidence-based practice can be conceptualised as operating at three organisational levels.



- **The microsystem** is the level at which healthcare professionals provide direct patient care. In the context of ambulance services, the scene of the incident or the back of the ambulance would be the microsystem level. Here a paramedic or a small team of paramedics assess and treat patients and in doing so face the challenges of integrating evidence into routine individual patient care.
    - The microsystem does not function in a vacuum – it operates within a meso system of an organisation which in turn operates in a macro system
- **The mesosystem** would be the ambulance service that the paramedics work for
- **The macrosystem** would be the department of health
- To optimise EBP implementation within an organisation it's important to consider all these levels.
- Barriers to implementing EBP are commonly seen at the microsystem
    - Common barriers – time, skills and attitudes
    - To overcome these barriers organisations, need to invest in enablers and reinforcers (human and non-human resources)
    - E.g. the consultant paramedic

Leadership Promotion of EBP:

- Power to influence/direct the modus operandi
    - The best catalyst for change is a good leader – has the knowledge and power to develop the structures and processes and influence the culture
- Build required structures, processes and cultures
- Systematise strategies for evidence translation
- Better and safer patient care, i.e. quality improvement and patient safety
    - Efficiency – aligning clinical practice with the best available evidence
    - Reputation – organisations need to meet benchmarks

Organisational Culture:

- Changing an organisation is a challenging task – people tend to resist change
- By changing the organisational culture change is more likely to occur – that is the norms and expectation that exist within an organisation
- The culture affects the perceptions, attitudes and behaviour of the staff

How to Integrate EBP in AS Through Leadership:

- Leadership advocates EBP
  - Transformative – followers are inspired, role modelling occurs
- EBP-QI Nexus
  - Signs of quality improvement and patient safety
  - Implementation of evidence relies on effective implementation methods
  - E.g. Evidence based quality measures, journal clubs, quality improvement collaboration, clinical registries
- Structures
  - Building blocks of the service
  - Non-human resources
  - Infrastructure needs to be provided to staff so EBP can be applied
  - Staff need to have access to evidence-based clinical guidelines
  - Clinical team leader
- Processes
  - Processes need to be in place and followed so structures can be in place
  - Less likely to be followed if completed by an external service
  - Involve staff – they will be more likely to change their processes
- Training
  - Staff need appropriate training and skill development to implement EBP
  - Effective methods need to be used, e.g. simulation based teaching or small group discussions
- Policy
  - Embedding EBP in the organisation can influence governance and purchasing decisions and thus ultimately contribute to EBP implementation

Week 10 – Leadership for Evidence-Based Practice Reading:

Leadership for Evidence Based Practice:

- Making evidence-based practice (EBP) a reality throughout an organisation is a challenging goal in healthcare services.
- Leadership has been recognised as a critical element in that process.
- Institutionalisation of EBP is defined as integration of the use of evidence into the very fabric or structure of a clinical organisation – as a result EBP becomes the organisational norm.
- The most significant, receptive contextual element identified in the role model was “key people leading change”.

Strategic Leadership Behaviours:

- Leaders engaged in strategic behaviours demonstrated underlying vision-focused and systems-orientated thinking.
- These key leaders conceived an EBP vision – articulated its importance, and planned for its operationalisation and sustainment
- These leaders established and maintain normative and cultural expectation, a set of infrastructures, and documents regarding EBP role requirements.

Functional Leadership Behaviours:

- **Inspiring and inducing** – these behaviours were geared to activating, motivating, encouraging and engaging others in EBP.
- **Intervening actively and involving one's self in EBP** – these functional leadership behaviours relate to personal, hands-on involvement in real-time EBP activities.
- **Educating or developing and role modelling** – these functional behaviours helped others learn about EBP and the 'how to' of achieving it.
- **Monitoring/providing feedback or seeking insights and implementing specific EBP projects** – these behaviours were primarily aimed at monitoring and implementing EBP projects.

Cross Cutting Leadership Behaviours:

- **Strategic thinking** – demonstrated an ongoing, deliberate, thoughtful approach to actualising their conceived EBP vision – "a sense of strategic intent and purpose embedded in the minds of managers… that guides their choices (and actions) on a daily basis".
- **Communicating** – strategic communicating reflected intent to influence EBP norm and transformation. Functionally communicating reflected task orientated actions for more immediate ends
- **Building and sustaining an EBP supportive culture** – leaders influenced the way things were to be done in the organisation consistent with EBP.

Week 10 – Developing Leadership in the UK's Ambulance Service Reading:

Leadership Frameworks:

- Specific DH role requirements were known as the four core functions: expert practice, leadership and consultancy, education and training, service development and research and evaluation, in addition to the requirement for 50% of their time spent in clinical practice.
- Expert practice
- Professional leadership and consultancy
- Education, training and development
- Practice and service development, research and evaluation
- Credible clinical leadership
- A single consultant paramedic is unlikely to achieve these clinical leadership goals alone.

Week 10 – Medical Leaders or Masters? Reading:

Medical Leadership:

- Medical leadership is considered as crucial for improving the quality of care and the sustainability of healthcare.
- Many argue that medical leadership is necessary for overcoming the divide between medical and managerial logics in hospitals that hampers improvement in healthcare.
- Physicians are more influenced by their peers than by managers due to the highly socialised character of the medical profession.
- Medical leadership is conceptualised in literature either as physicians with formal managerial roles or physicians who act as 'informal leaders' in daily practices.
- To perform effectively, credibility among medical peers appeared to be the most important factor, follow by knowledge, skills and attitudes.

Definitions:

- Leaders are described as "champions", "key-physicians" and "visionaries"
- These physicians are able to enact to multiple functions in addition to their clinical roles, are committed to hospital success and able to influence and inspire their colleagues.

Types of Medical Leadership:

- Type 1 – physicians in formal managerial role and is described as either 'medical management' or 'medical leadership'
- Type 2 – physicians in informal roles and is described as 'medical leadership'

Activities and Roles:

- General management and leadership – finance, staff management, human resources, leading change, innovation and improvements in clinical issues and increasing multidisciplinary collaboration – able to influence and empower others
- The 'linking pin' between organisations

Personal Features Related to Medical Leadership:

- Credibility, knowledge, attitude and experience in management
- Credibility is an important source of legitimacy, influence and recognition, which are required to 'get things done'.
- Retention of a professional focus and identification was considered important in preventing isolation from medical peers not only because they do not want to be considered managers.
- Different areas of knowledge – clinical knowledge
- Attitudes – motivation, assertiveness, cooperativeness, patient centred, integrity, mission driven and result driven

Context-Specific Features Related to Medical Leaderships:

- Competing logics, lack of time, role ambiguity and lack of support

- Competing logics – quality of care vs efficiency, working autonomously vs being a subordinate and engaging in clinical work vs managerial work.
- Lack of time – issues when dividing time between clinical and managerial work
- Role ambiguity – lack of a well-defined role description, resulted in stress, concerns and frustration. Positive – role became more fluid and open for interpretation.

Week 10 – Is Leadership the Key to Implementing Evidence into Practice? Reading:

Leadership:

- Organisational culture was found to influence the care provided in hospitals
- Leadership has been defined as: "The actions of formal leaders in an organisation to influence change and excellence in practice"
- Leadership attributes and qualities that appear to help change organisational culture and support the use of knowledge translation are:
  - Valuing research
  - Knowledgeable about research
  - Role-modelling evidence-based care
  - Effective communicator
  - Encouraging staff to question practice
  - Staff involved in decision-making
  - Supportive of changes in practice
  - Providing feedback to staff
  - Ensuring policy and procedures are evidence-based and kept up to date
- Authentic leadership has been defined as: "A pattern of transparent and ethical leader behaviour that encourages openness in sharing information needed to make decisions while accepting input from those who follow".

Week 11 – Clinical Quality Indicators – Implications for Practice:

Why Define Quality?

- We cannot assess quality until we have decided with what meaning to invest the concept. A clear definition of quality is the foundation upon which everything is built.

What is Quality?

- The standard of something as measure against other things of a similar kind; the degree of excellence of something.
- The concept of quality is easily understood, however, defining it is challenging because quality is highly contextual.
- Deming refused to define quality in a few words or a sentence stating that "the quality of any product or service has many scales".
- In healthcare:
  - A perpetual problem among health care managers and researchers
  - Two approaches:
    - Generic – include everything and are broad and general
    - Disaggregated – look at specific aspects, e.g. patient safety
- The Institute of Medicine (ION) defines health care quality as:
  - "The degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge"
- The IOM further defines quality as having the following properties or domains:
  - **Effectiveness –** relates to providing care processes and achieving outcomes as supported by scientific evidence
  - **Efficiency –** relates to maximising the quality of comparable unit of health care delivered or unit of health benefit achieved for a given unit of health care resources used.
  - **Equity –** relates to providing health care of qual quality to those who may differ in personal characteristic other than their clinical condition or preferences for care.
  - **Patient centredness –** relates to meeting patients' needs and preferences and providing education and support
  - **Safety –** relates to actual or potential bodily harm
  - **Timeliness –** relates to obtaining needed care while minimising delay
  - **Appropriateness –** is the treatment indicated, cultural considerations, appropriate for the setting
- When compared to attributes of quality in performance frameworks of wider healthcare systems internationally, none of the attributes identified in this review which were specifically described as prehospital care quality attributes can be considered exclusive to this context. Thus, it could be said that as a component of healthcare, prehospital care has common attributes of more generic definitions of healthcare quality. The prehospital setting, however, is different and unique in many ways.

- Although the search results indicate significant scarcity of research that defines quality in this specific context, the findings suggest that **timely access to appropriate, safe and effective care, which is responsive to patients' needs and efficient and equitable populations,** describes the key attributes of quality valued most in the pre-hospital setting

Why Measure?

- Document of quality of care
- Make comparisons (benchmarking)
- Make judgements and determine priorities
- Provide transparency in health care
- Support accountability
- Support quality improvement

The Science of Quality Improvement:

- **Deming's System of profound knowledge:**
  - Appreciation of a system
  - Understanding variation
  - Theory of knowledge
  - Psychology
- **Donabedian model:**
  - Structure
  - Process
  - Outcome
- **Stewhart's theory of variation**
- **Conceptualistic pragmatism:**
  - Observations are informed by past experiences. Experiences are used to predict a range of possible futures that will be acted on.

Guidelines, Indicators, Criteria and Standards:

Term	Definition	Example
Indicator	Retrospectively measurable element of practice performance for which there is evidence or consensus that it can be used to assess quality of care provided and hence change it.	The trauma patient who is bleeding or is at risk of significant haemorrhage is administered tranexamic acid as early as possible and within 3 hours from the time of injury, unless contraindicated.
Guidelines	Systematically developed statements to help practitioners and patients make decisions in specific clinical circumstances. They essentially define best practice.	The trauma patient who is bleeding or is at risk of significant haemorrhage should receive tranexamic acid unless contraindicated.
Review Criterion	Systematically developed statement relating to a single act of medical care.6The statement is so clearly defined that it is possible to determine retrospectively whether the element of care occurred.	If the trauma patient experienced bleeding or was at risk of significant haemorrhage, did they receive tranexamic acid as early as possible and within 3 hours from the time of injury, in the absence of contraindications?
Standard	The level of compliance with a criterion or indicator.	
Target Standard	Set prospectively and stipulates a level of care that providers must strive to meet.	90% of trauma patients experiencing bleeding or a risk of significant haemorrhage should receive tranexamic acid as early as possible and within 3 hours from the time of injury, unless contraindicated.
Achieved Standard	Measured retrospectively and details whether a care provider met a predetermined standard.	85% of trauma patients experiencing bleeding or a risk of significant haemorrhage received tranexamic acid as early as possible and within 3 hours from the time of injury, unless contraindicated.

Indicators and Measures:

- Mostly used interchangeably
- Strictly speaking, indicators are by their very nature indicative of performance or quality but are not direct measures of it.

Indicator:	The trauma patient who is bleeding or is at risk of significant haemorrhage is administered tranexamic acid as early as possible and within 3 hours from the time of injury, unless contraindicated.
Measure:	The proportion of trauma patients with bleeding or at risk of significant haemorrhage who are administered tranexamic acid as early as possible and within 3 hours from the time of injury, unless contraindicated.

-

The Donabedian Model:

- **Structure:** Physical and organisational characteristics where health care occurs
- **Process:** Focus on the care delivered to patients (e.g. services or treatments)
- **Outcome:** Effect of health care on the status of patients and populations
  - The most important to get but also the most difficult to measure – confounding factors, limited patient contact time and follow up through hospital

Activity, Performance and Quality Indicators:

- **Quality indicator –** linked to quality
- **Performance indicator** – may be linked to quality
- **Activity indicator** – merely activity

Attributes of High-Quality Quality Indicators:

- **Validity:** The degree to which the indicator measures what it is intended to measure, i.e. the result of a measurement corresponds to the true state of the phenomenon being measured.
  - A valid indicator discriminates between care otherwise known to be good or bad quality and concurs with other measures that are intended to measure the same dimension of quality.
- **Acceptability:** The acceptability of the data collected depends on whether the findings are acceptable to both those being assessed and their assessors.
- **Reliability:** Reliability refers to the extent to which a measurement with an indicator is reproducible.
- **Feasibility:** Refers to both technical possibility and workload practicability. A technically feasible indicator is one for which accurate data are available and collectable in the existing information systems. Workload feasibility refers to sufficient staff capacity to implement and maintain the indicator.

Common Cause Variation:

- Inherent to the system or process
- Due to regular, natural, or ordinary causes
- Affects all the outcomes of a process
- Results in a 'stable' process that is predictable
- Also known as random or unassignable variation

Special Cause Variation:

- Not inherent to the process design
- Due to irregular or unnatural causes
- Affects some but not necessarily all aspects of the process
- Results in an 'unstable' process that is not predictable
- Also known as non-random or assignable variation

Metric Fixation – Recurring Flaws:

- Measuring the most easily measurable
- Measuring the simple when the desired outcome is complex
- Measuring inputs (structure/process) rather than outcomes
- Degrading information quality through standardisation
- Gaming through creaming
- Improving numbers by lowering standards (narrowing the gap between achieved and target standards).
- Improving numbers through omission or distortion of data
- Cheating

Indicators / Measure are 'only' a tool:

- Quality improvement strategies:
  - PDSA
  - Six Sigma
  - Lean methodology
  - RCA
  - FMEA/HFMEA

Summary:

- A definition of what is being measured is essential
- Development process needs to be robust
- The right measure for the right purpose at the right time
- Use control charts for analysis
- Only a tool for quality improvement – a critical one though!

Clinical Indicator	
Title	ACS-01
Indicator	Patients who present with suspected ACS to have a 12-lead performed
Quality Attribute	Effectiveness – relates to providing care processes and achieving outcomes as supported by scientific evidence
Type	Process
Measure	The proportion of patients with ACS who receive a 12 lead
Numerator	The number of patients with ACS who receive a 12 lead
Denominator	The proportion of patients with ACS
Target	95%

Clinical Indicator	
Title	VITALS-01
Indicator	All patients to receive two sets of observations
Quality Attribute	Effectiveness
Type	Process
Measure	The proportion of patients who receive two sets of vital signs
Numerator	The number of patients who receive two sets of vital signs
Denominator	All patients seen by paramedics
Target	100%

Clinical Indicator	
Title	FROP-COM-01
Indicator	FROP-COM screen to be completed on elderly falls (>65)
Quality Attribute	Effectiveness
Type	Process
Measure	The proportion of elderly (>65) falls who receive a FROP-COM screening
Numerator	The number of elderly falls who receive a FROP-COM screen
Denominator	The number of elderly falls
Target	75%

Clinical Indicator	
Title	Lifepak-01
Indicator	All ambulance vehicles to be equipped with a transmitting Lifepak
Quality Attribute	Efficiency
Type	System
Measure	The proportion of ambulance vehicles equipped with a transmitting Lifepak
Numerator	The number of ambulance vehicles equipped with a transmitting Lifepak
Denominator	The number of ambulance vehicles
Target	100%

Week 11 – Defining and Classifying Clinical Indicators for Quality Improvement Reading:

- Clinical indicators create the basis for quality improvement and prioritisation in the health care system.
- Indicators for performance and outcome measurement allow the quality of care and services to be measured.

Definitions:

- **Quality of care:** *The degree to which health services for individuals and populations increase the likelihood of the desired health outcomes and are consistent with the current professional knowledge and can be divided into different dimensions according to the aspects of care being assessed.*
- **Indicators:** Measures that assess a particular health care process or outcome
  - As quantitative measures that can be used to monitor and evaluate the quality of important governance, management, clinical and support functions that affect patient outcomes.
  - As measurement tools, screens, or flags that are used as guides to monitor, evaluate, and improve the quality of patient care, clinical support services, and organisation function that affect patient outcomes.

Key Characteristics of an Ideal Indicator:

- Indicator is based on agreed definitions
- Indicator is highly or optimally specific and sensitive
- Indicator is valid and reliable
- Indicator discriminates well
- Indicator relates to clearly identifiable events for the user
- Indicator permits useful comparison
- Indicator is evidence based

Types of Indicators:

- **Rate-based:** Uses data about events that are expected to occur with some frequency (proportions, rates, mean, ratios)
- **Sentinel:** Identifies individual events or phenomena that are intrinsically undesirable and trigger further investigation - used for risk management.
- **Structural indicators:** Refers to health system characteristics that affect the system's ability to meet the health care needs of the individual patients or a community.
    - Describe the type and amount of resources used by a health system to deliver programs and services.
- **Process indicators:** Assess what the provider did for the patient and how well it was done.
- **Outcome indicators:** States of health or events that follow care and that may be affected by health care.
    - Captures the effect of care processes on the health and wellbeing of patients
    - The five D's: death, disease, discomfort, disability and dissatisfaction
- **Generic indicators:** Measure aspects of care that are relevant to most patients
- **Disease-specific indicators:** Diagnosis-specific and measure particular aspects of care related to specific diseases.

Risk Adjustment:

- Outcome measures must be adjusted for factors outside the health system
- Factors that are frequently included in risk adjustment models include patient demographic, psychosocial characteristics, lifestyle factors, severity of illness, health status and co-morbid status.

Week 11 – Performance Measurements in Emergency Medical Services Reading:

Continuous Quality Improvement:

- CQI emphasises organisational systems and processes rather than individual behaviour as targets for data collection, analysis and improvement.

Standards, Performance Indicators and Benchmarking:

- **Benchmarking:** Entails the use of a structured method to quantitatively compare processes or products with the goal of identifying current best practices.

Week 11 – Indicators to Measure Prehospital Care Quality Reading:

Discussion:

- Characteristics of prehospital care quality should be no different to those of healthcare quality in other parts of the system.
- Pre-hospital care has common attributes with generic definitions of healthcare quality.
- Prehospital care practitioners frequently work in austere environments and with relatively limited resources

- The findings suggest that timely access to appropriate, safe and effective care, which is responsive to patients' needs and efficient and equitable to populations are the key quality attributes in the pre-hospital context.
- There was a reasonable balance between QI's characterised as clinical and those categorised as system/organisational.
    - Within the clinical category there was a strong focus on OOHCA and within the system/organisational component the most frequent sub-category was time intervals

Week 11 – Research Methods Used in Developing and Applying Quality Indicators in Primary Care Reading:

What are Quality Indicators?

- Indicators are explicitly defined and measurable items referring to the structures, processes, or outcomes of care.
- **Guideline:** Systematically developed statements to help practitioners and patients make decisions in specific clinical circumstances.
- **Indicator:** Retrospectively measurable element of practice performance for which there is evidence or consensus that it can be used to assess quality of care provided and hence change it.
- **Review criterion:** Systematically developed statement relating to a single act of medical care. The statement is so clearly defined that it is possible to determine retrospectively whether the element of care occurred.
- **Standard:** The level of compliance with a criterion or indicator
- **Target standard:** Set prospectively and stipulates a level of care that providers must strive to meet
- **Achieved standard:** Measured retrospectively and details whether a care provider met a predetermined standard.

Principles of Development:

- Structures – staff, equipment, appointment systems etc.
- Processes – prescribing, investigations, interactions etc.
- Outcomes – mortality, morbidity, patient satisfaction etc.

Non-Systematic Research Methods:

- Not evidence based – easy and quick to create
- For example, if it was based off one case study

Systematic, Evidence-Based Methods:

- Indicators should be based on scientific evidence, such as empirical studies
- The better the evidence, the stronger the benefits of applying the indicator
- Expert opinion can also be included for methodology with weak evidence – however must follow rigorous methods
    - Consensus development conferences – 10 members produce a consensus statement
    - Indicators derived from guidelines by interated consensus rating procedure

- Delphi method – rounds of questionnaires where researchers clarify a problem
- Nominal group technique – structure interactions within a group of experts
- RAND appropriateness method – generation of indicators based on literature review and expert panel

Research Methods for Applying Indicators:

- Consensus techniques = face validity
- Those based on rigorous evidence = content validity
- All measures have to be tested for acceptability, feasibility, reliability, sensitivity to change and validity.
    - Acceptability – if the findings are acceptable to those being assessed and the assessors.
    - Feasibility – availability of data
    - Reliability – extent to which a measurement of an indicator is reproducible
    - Sensitivity to change – quality measures need to detect changes in quality of care in order to discriminate between and within subjects.
    - Validity – whether any criteria were rated by panels contrary to known results from RCT's.

Week 12 - Preceptor and Mentoring Lecture:

Preceptorship:

- For both internal graduates and student ride alongs
- What is it like being a preceptor?
- What challenges arise?
- The graduate experience
- How to raise problems with your preceptor
- Challenges:
  - Balance between friendliness and professionalism
  - Moulding around the probationer – leads to progressive learning
  - Compromising – maybe letting them do assessments how they want – expect when it comes to patient safety
  - Staying switched on – struggling to provide the experience they want on road – trying to not burn enthusiasm
  - Dealing with attitudes that impede on learning
- How did you learn to be a preceptor? Did NSWA train you?
  - Service does not teach you
  - Pick and choose traits for preceptors that you've had
  - Model what your preceptor does – the positives
  - Can learn as much from a good preceptor as a bad preceptor
- Trying to teach more?
  - Practical skills are much easier to teach than clinical knowledge, empathy
  - Let students grow in a safe environment

Week 12 – Mentorship and Preceptorship Reading:

Mentorship:

- Mentorship – the role of supporting and supervising clinical students in practice
- Mentoring is found across the full scope of paramedic practice for students in pre-registration programmes and newly qualified paramedics.
- Standards of education and training:
  - Must have relevant knowledge, skills and experience
  - Must undertake appropriate practice placement educator training
  - Must be appropriately registered

Stressors and Coping Differences:

- Paramedics tend to cope with stresses in predominantly informal ways.
- The role modelling this can present to less experienced students can mean they are unsure of how to express or process the same experiences.
- Students may be living away from personal support networks.

Social and Cultural Issues of Mentorship:

- There is a process of acculturation noted within contemporary paramedic research that mentors are absolutely at the heart of, as they have a primary impact on students' development within the culture of practice.

- This aspect of the role of mentor – that of role model or even guide through current cultural praxis.
- Considered an ethical aspect of mentorship practice, role-modelling has been detailed as a fundamental and critical function
- Mentors need to be able to communicate and embody these professional attitudes, alongside the required skills and knowledge.

Challenges for Mentors:

- A key function of mentors is to assess students' performance and capabilities in practice, and it is to them that the difficulties of addressing poor performance, supporting those students who are in danger of failing.

Preceptorship:

- Preceptorship relates to enhancing practice.
- Preceptorship is about providing support and guidance to enable new registrants to make the transition from student to accountable practitioner.
- A period of structured transition for the newly registered practitioner during which he or she will be supported by a preceptor, to develop their confidence as an autonomous professional, refine skills, values and behaviours, and to continue on their journey of life-long learning.
- Preceptorship is not:
  - Intended to replace mandatory training programs
  - Intended to be a substitute for performance management processes
  - Mentorship
  - Statutory or clinical supervision

Purpose of Preceptorship:

- To prepare newly qualified paramedics for entry into the workforce.
- This is in contrast to mentorship as mentors could be actively engaged in the assessment of students' practice to reach this point of registration.

The Preceptor:

- A preceptor is a registered paramedic who has been given formal responsibility to support a newly qualified and registered paramedic through a period of preceptorship.
- The attributes of an effective preceptor:
  - Giving constructive feedback
  - Setting goals and assessing competency
  - Facilitating problem solving
  - Active listening skills

Preceptorship in Practice:

- Preceptorship requires a culture shift within the ambulance service as previously newly qualified staff have learnt on the job and through experience.

Week 12 – Teaching on the Run Reading:

A Four Step Approach:

- **Demonstration:** Trainer demonstrates at normal speed, without commentary
- **Deconstruction:** Trainer demonstrates while describing steps
- **Comprehension:** Trainer demonstrates while learner describes steps
- **Performance:** Learner demonstrates while learner describes steps

Week 12 – Understanding Mentoring and Preceptorship Reading:

Mentoring and Preceptorship:

- Mentoring:
  - Meaningful as an orientation tool for new employees as well as being pivotal in career and professional transition and advancement.
  - Mentoring fulfils psychological and career functions by sponsoring, coaching, acting as a role model, acceptance and friendship.
  - Mentoring is a long-term commitment
  - Mentoring strengthens intellectual growth, research, professional career development and from an academic view, assists new faculty members with academic guidance, and skill development.
- Preceptorship:
  - Involves a role which is undertaken by an experienced staff member in order for a novice to be orientated and socialised into the workplace.
  - This relationship may or may not develop further into a mentoring role.
  - Is an initial short-term tool used to orientate the new worker to the environment
  - Used in a clinical setting to orientate and socialise new staff members to a specific work area, develop clinical competency, time management and problem-solving abilities.
  - Advantages – increase in job satisfaction, self-esteem, organisational skills and personal satisfaction.
  - Four key roles:
    - Role modelling
    - Facilitation – supporting learning
    - Guidance
    - Prioritisation

PRECEPTORSHIP	MENTORING
Has been utilized in the nursing industry since the mid 1970s	Not fully embraced within the nursing profession until the 1990s
Utilised mainly in the clinical arena	Utilised in all arenas of the nursing profession, in particular, the arena of academia
Short-term process used in the orientation period for new staff members	Long-term process used at any time within the protégés career
Offers protection and supervision in learning new skills and settling into a new environment	Is more than supervision – the mentor guides the protégé in their career path and aids in professional progression
Used for student nurses, new graduate nurses and new staff members	Can be used for student, new graduate and experienced nurses
Provides the new comer with a role model and resource to assist in the transition period	Provides the newcomer and experienced staff members with a role model and resource and can become a deep friendship and confidante.
Only occurs within the work setting and within work hours – does not cross into personal lives	Can occur in both work and non-work hours and often crosses into both parties personal lives

Week 12 – The Five Phases of Preceptorship Reading:

Pre-Shift Phase:

- The preceptor and the student should utilize this time to develop objectives for the shift, which correlates with how the student is performing and where the student needs improvement.
- A learning contract is a two-part document that has an area for clinical objectives and an area for preceptor notes, which allows the preceptor to expand comment on individual objectives.

Patient Care Phase:

- Preceptorship allows the student an opportunity to practice assessments, skills and clinical judgment under the watchful eye of an experienced clinical practitioner.
- The preceptor makes the clinical environment safe for both the student and patient, but the value of the clinical experience will depend on the quality and willingness of the preceptor to teach in the clinical environment.
- Preceptors accomplish this transition to the street by role modelling, skill assignment, coaching and providing constructive feedback. By gradually delegating specific patient care tasks, preceptors provide a framework for learning until students are running the entire call.

Debriefing Assessment Phase:

- Education research shows effective clinical teachers ask questions to evaluate the learner and provide meaningful feedback in a timely manner.
- Mini run review – get a commitment, probe for supporting evidence, reinforce what was done well, give guidance about errors or omissions and teach a general principle

Post-Shift Phase:

- Positive feedback reinforces behaviour and encourages repetition of those behaviours by communicating they had the intended desired effects. Negative

feedback discourages behaviour by communicating they did not have the intended desired effects.

Student Advising Phase:

- Furthermore, monthly preceptor meetings should also be scheduled throughout the internship to validate individual student performance and to evaluate the overall effectiveness of the program.

Preceptor Evaluation Errors:

- **Contrast effect:** Evaluate a student relative to other students rather than the standard
- **First impression:** Make a first favourable or unfavourable judgement and ignore or distort any further information
- **Halo effect:** Evaluate a student utilising one part of their performance and extending it to all other areas of performance
- **Similar to me effect:** Evaluate a student more favourable if he or she has a similar personality to the preceptor
- **Blanket approach:** Evaluate a student in regard to their need to be liked or by playing it safe "everyone meets standard"

Week 12 – Barriers to Learning in Health Professional Clinical Education Reading:

Barriers:

- Lack of engagement
- Lack of affordances
- Teacher impact

Week 13 – Preceptoring and Mentoring 2:

What's in the Name?

- **Preceptorship:**
  - Short-period of time – to guide within a selective area
  - The preceptorship relationship is time-limited and tends to be short term to assist novice clinicians during their transition to clinical practice
  - You are placed within this system
- **Mentorship**
  - Long-term and you have selected them to be a mentor
  - Mentorship extends to personal growth and the interpersonal growth and the interpersonal development of the mentee, provides support rather than direct instruction or teaching
  - This is your choice
  - Ideally, not somebody that you don't interact with everyday
- **Clinical supervision:**
  - Fairly new concept in paramedicine
  - Selecting the areas that you want to improve and is engaged by a professional

How to Facilitate Effective Mentorship:

- Clarify your expectations and know your goals
- Confirm logistics – how will you meet, ensure you are prepared
- Help your mentor help you – discuss mutual goals and expectations
- Commit to confidentiality – create a safe space
- Learn to accept and give feedback – critical reflection is key
- Recognise the mentorship is in your hands – you bring the dedication and initiative be proactive
- Respect your mentors time
- Keep your mentor informed – has your situation changed
- Enjoy being mentored by a trusted peer

What are the Benefits of Mentoring?

- Improved skills
- Development of professional qualities
- Reinforcing own knowledge
- Increased confidence and motivation
- External perspective or point of view
- Safe and honest communication

What is a Preceptor?

- An "experienced" practitioner, who is formally assigned for a fixed period of time, to provide transitional support to an undergraduate or clinician, into a new practice setting, through role modelling, teaching and socialising.

What is the Role of the Preceptor?

- To provide the link between the concepts of evidence approaches to care and the realities of actual practice.

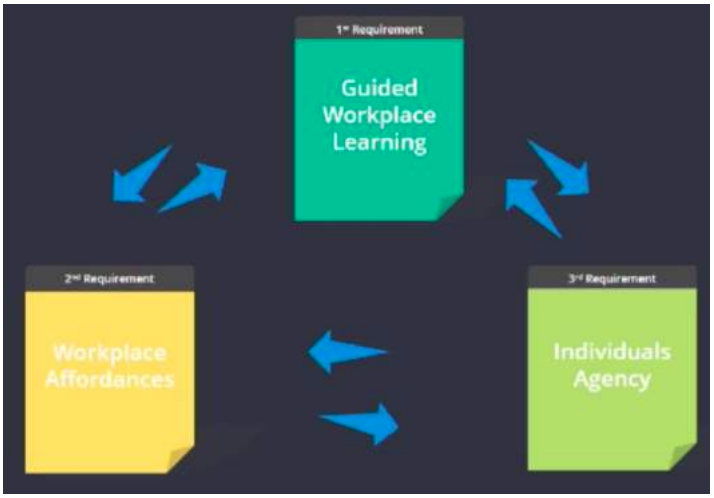
What is Required of the Preceptor?

- *Ideally a preceptor should make hard to learn knowledge accessible, secure meaningful learning, mitigate against poor or inappropriate practices and facilitate access to work activities.*
- Models realities of practice
- Organise professional and personal behaviours
- Provide realistic strategies for providing care
- Facilitate the experience of work-related pressures
- Provide patient interaction
- Provide interprofessional interaction
- Interact with the referral system

What Challenges or Barriers may you Experience when Providing Preceptorship?

- Students with a poor attitude – not engaged – can't force them to do anything
- Student advocacy
- Personality clash – moulding your personality
- Debriefing – can be limiting in the context of ambulance
- Realities vs expectations
- What noise can confound provision of good preceptorship?
    - If you are friends
    - If the student doesn't think you are good
    - Culture within the workplace – just an add-on

Workplace Integrated Learning:



- Guided workplace learning
    - Requires a preceptor who wants to be a part of the interaction
- Workplace affordance
    - Opportunities that arise to gain experience
- Individuals agency
    - Student wants to learn

Guided Workplace Learning:

- Direct and indirect guidance by co-workers/peers
- Workplace culture and social interaction drives learning
- Direct guidance is most salient, making workplace knowledge accessible to those that would otherwise remain unknown
- Access and guidance in everyday activities of work. Leads to increased accountability and autonomy
- Access to knowledge to be learnt and gained by observation of workplace practices – observing and listening while understanding the goals of practice
- Direct learning strategies – developing workplace values and procedures that would not be learnt through observation alone
- Providing opportunity to apply knowledge in novel situations

Workplace Affordances:

- Most limiting factor
- Influencing individuals learning in the workplace by shaping their participation in work
- Learning afford through work activities, direct guidance (preceptors) or indirect guidance (observation)
- Affordances are not distributed equally across the workplace, can be heavily influenced by the preceptor and workplace routine. Think country vs metro job load
- Can be distributed by workplace hierarchy's limiting access to opportunities

Individuals Agency:

- Influences how the individual interoperates and responds to affordances within the workplace
- Can be situational – not at your best today, external factors
- Must be effortful and not passive, generally needs to be seen as having value
- Can be shaped by previous experience
- The individual will weigh their own interests and the value of a work practice when determining their engagement in an activity, influencing the learning that can take place.
- Individuals learning is interpretative, critical and reciprocal

What Does Workplace Interactive Learning Offer?

- Although the concept of students being placed in the workplace to get work experience is not new, the rationale behind WIL goes beyond merely providing the physical environment of a workplace as a site for students to experience work or to learn professional practice.
- More than simply being placed in a working environment, WIL is about the integration of higher-level concepts or "soft skills" within the workplace.
- Produces more employable and work ready graduates
- Benefits students, universities, the community and the workplace
- Exposes students to work place cultures and norms- can be complex and involves incorporating a range of stakeholders
- Allows for testing of theoretical practices in a real context.

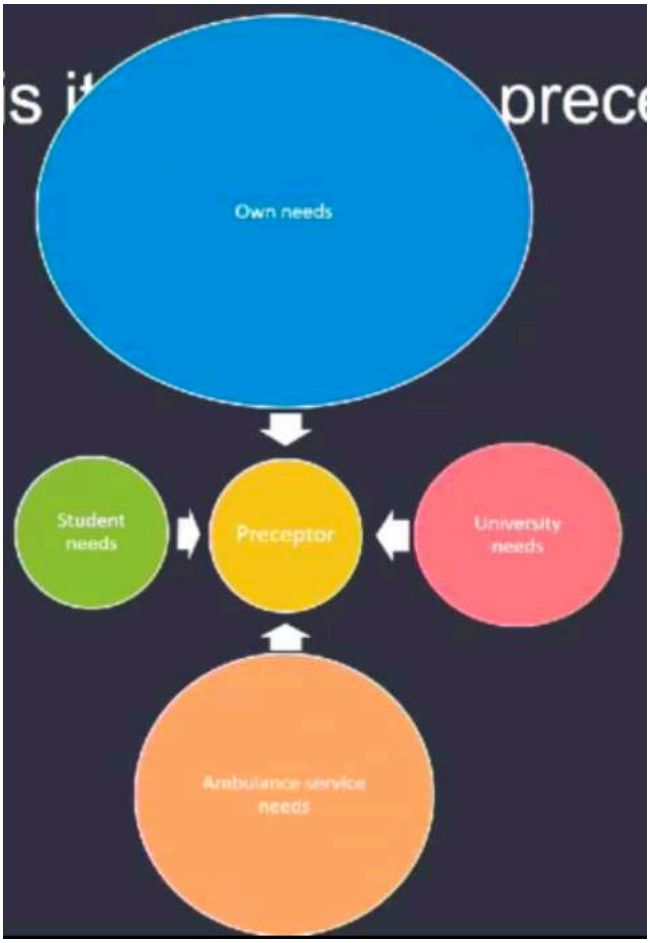
Benefits of WIL:

- Benefits for students:
  - Working a setting in which to put theory into practice
  - Developing an awareness of work-place culture and expectations
  - Developing soft skills such as communication, team working, email and report-writing skills, punctuality and attendance, leadership and career development
  - Developing an appreciation of the fluidity of a rapidly changing world of work
- Benefits for employers:
  - Observe potential recruits without obligation
  - Having a pool of potential recruits with some general awareness of workplace culture
  - An injection of new ideas
  - Staff development opportunities that arise from employees mentoring students
- Benefits for academics:
  - The opportunity for students to see their subject area in practice
  - The ability to integrate student learning experiences into curriculum development
  - The satisfaction of seeing students develop and mature
  - The enhancement of students' skills
  - Using employer contracts to ensure that their commercial or industry-related teaching is up-to-date
  - Using links to encourage employers to participate on-course validation panels in the development of subject areas, present guest lectures or participate in seminars

Barriers and Challenges:

- Learning that is inappropriate (e.g. dangerous, shoddy, inflexible practices), yet available and reinforced in workplaces
- The contested nature of work practice inhibiting individuals' access to activities and guidance required for rich learning
- Difficulties in learning knowledge not readily accessible in the workplace (e.g. conceptual and symbolic knowledge)
- Difficulties with accessing appropriate expertise and experiences required to develop vocational knowledge
- The reluctance of workers to participate in learning vocational practice though their workplace experiences

What is it Like Being a Preceptor?



- **The clinical axis:** Explores the interconnection that exists between student, clinician and patient during patient interactions. Ideally both the patient and the clinician become teachers guiding the student in their exploration of the clinical assessment in a mutually beneficial way.
- **The personal axis:** Represents the relationship between a student's personal beliefs and the journey they take when their belief systems are challenged by the complexities and expectations of professional practice. The social emotional and physical health of a student can be challenged within the axis.
- **The social axis:** This relationship explores the impacts government influence over policy and finance have when compared with community expectations of health services. Students can find themselves observing the results of policy decision making within the community and potentially empower change.
- **The institutional axis:** Describes the beneficial relationship that exists between health services and universities. When the opportunities to practice medicine are balanced with the production of contemporary research and teaching of evidence base practices.

The Clinical Axis (Clinician-Patient Relationship):

- An integral part of knowledge consolidation is the ability to apply theories into practice. Within this axis the student finds themselves with the potential to engage in authentic learning opportunities under the guidance of a preceptor.

- What can you do as a preceptor?
    - Ideally a student is empowered through their preceptor to establish a connection with their patient, and consider a patient centred approach rather than an episodic medical interaction. This enhances critical thinking and clinical knowledge.

The Personal Axis (Personal-Professional Relationship):

- Clinical placement offers ample opportunity for reflection on the student's ideals and the realities in which they will be required to navigate as a clinician.
- As a student progresses through their clinical placement circumstances will arise that should challenge their understanding of health and their core belief system. This challenge is essential in exposing the student's unknown self and promotes the identification of bias that will benefit patient safety in their future career. The preceptor should accommodate reflective activities for the student to promote this axis.

The Social Axis (Government-Community Relationship):

- The clinical program allows for students to identify the role of paramedics within the complex health system and inevitably gain exposure to the duality of government constraints and community expectations. Best practice vs health economics
- Preceptors can highlight the inequality experienced by marginalised groups within society are evident when working as a paramedic.
- Students are exposed to the rigid conditions and constraints for delivery care set by the government and how this is regularly misaligned with expectations of the community. Importantly, this relationship directly interacts with the personal axis, as students also learn the reality that health providers are vulnerable to forming bias towards disenfranchised persons within the community, altering the way treatment is provided.

The Institutional Axis (University-Health Service Relationship):

- Within this axis both NSWA and the university come together to offer the benefits of clinical environment and contemporary practice to students. Students benefit directly by being exposed to a high volume of patient contact with the potential to apply theoretical concepts into practice.
- The health service provides the context for authentic learning. This has been defined as learning that is constructivist, enquiry based and of 'real work value'.
- Ambulance service benefits by facilitating motivated students who are educated in current best practice exposing operational paramedics to updated practices and potentially causing paramedics to challenge their own understanding of contemporary practice. Universities can benefit through access to clinical environments to test the effectiveness of curriculum with students in the field.

How do you Become and Effective Preceptor?

- Education, personal development
- Your own initiative
- Communicate with the preceptee

- It won't happen via osmosis, because you mean well, by watching others, by making it up as you go or experience.
- You have to work on it, and you have to learn about it. But you'll only work on it if you accept it as an important part of your job.

Week 13 – Clinical Supervision Mini Lecture:

What is Clinical Supervision?

- Clinical supervision is a "joint endeavour in which the practitioner with the help of the supervisor, attends to their clients, themselves as part of their client practitioner relationship and the wider systemic context, and by so doing improves the quality of their work, transforms their client relationships, continuously develops themselves, their practice and the wider profession".

Joint Position Statement:

- "A formally structured arrangement between a supervisor and one or more supervisees. It is a purposely constructed regular meeting that provides for critical reflection on the work issues brought to that space by the supervisee. it is a confidential relationship within the ethical and legal parameters of practice. Clinical supervision facilitates development of reflective practice and the professional skills of the supervisee through increased awareness and understanding of the complex human and ethical issues within their workplace".

History of Clinical Supervision Within Australia:

- 20th century – Freuds house every Wednesday night the Wednesday Psychological Society aka the Vienna Psychoanalytic Society, where the team 'supervision' began
- 1920s the fundamental principles of supervision had spread to the fields of nursing, teaching, commerce, industry emerged
- In Australia, the first supervision development policy was in July 2010: Health Workforce Australia published Clinical Supervision Support Program Discussion Paper.
- NSW State Level HETI: 3x Superguides
  - A handbook for supervising doctors in training (2010)
  - Supervising allied professionals (2011)
  - The superguide: A supervision continuum for nurses and midwives (2013)
  - 2015: The NSW Health Clinical Supervision Framework
  - HWA closed in 2014 in the Australian Federal Budget and in 2016 the interdisciplinary clinical training networks programs was closed
  - Clinical supervision for nurses and midwives position statement

Why Clinical Supervision?

- Helps identify areas of potential training needs of the supervisee
- Provides a link between research and practice
- Allows clinicians self-reflection on practice
- Identifies and strengthens supportive networks within an organisation
- The sharing of experiences of good practice and address perceived weaknesses

- Helps to reduce work place isolation
- Better care and treatment given to patients
- Helps to reduce stress and job-related anxiety
- Assists with increasing resilience and well-being
- Improves professional accountability and productivity
- Increase in job satisfaction
- Professional growth, learning and development
- Better care and treatment given to patients

The Supervision Alliance Model:

- **Proctors Framework of Clinical Supervision:**
  - **Normative (managerial):** The tasks of learning and facilitating learning
  - **Formative:** The tasks of monitoring, and self-monitoring, standards and ethics
  - **Restorative:** The task of refreshment

Normative Function of Supervision:

- Maintaining and developing standards of safe, ethical and quality practice
- The focus is on enhancing the effectiveness and ability of the supervisee's clinical role and performance for and within the organisation
- Supervisee examines and reflect on the work they do and explore ways of maintaining and improving quality and efficiency for the good and care of the patient
- Reflect on complex cases and issues
- Individual thoughts towards approaches to treatment, evaluation and planning are actively reflected upon
- It is not formal appraisal or managerial supervision

Formative Function of Supervision:

- Learning and educational function
- Role of clinical supervision is to help you reflect with confidence on your professional role, knowledge and skills as an individual and within paramedicine
- The focus is to enable you to learn and develop professional skills by receiving feedback and to develop new ideas
- Supervisee becomes aware of their strengths and weaknesses at work
- Developing insight (reflective practice) = knowledge = supervisee can relate theory to practice and integrate this learning in their practice

Restorative Function of Supervision:

- The supportive function
- How the supervisee responds emotionally to the stresses of working in a helping environment and caring for others, while allowing time for self-appraisal and well-being
- The focus is on building a nurturing supportive relationship that can help reduce stress while providing motivation and encouragement
- Helping a supervisee express feelings and concerns as an individual in their work can also help in developing insights into and new perspectives on ways to manage

- Hawkins and Shoet 2000, refer to this category as ‘pit head time’ the right to wash off the grime of the work in the boss’s time, rather than take it home
- Planned and protected time – a time to balance up the positive aspects by encouragement, praise and constructive feedback.

Establishing Clinical Supervision:

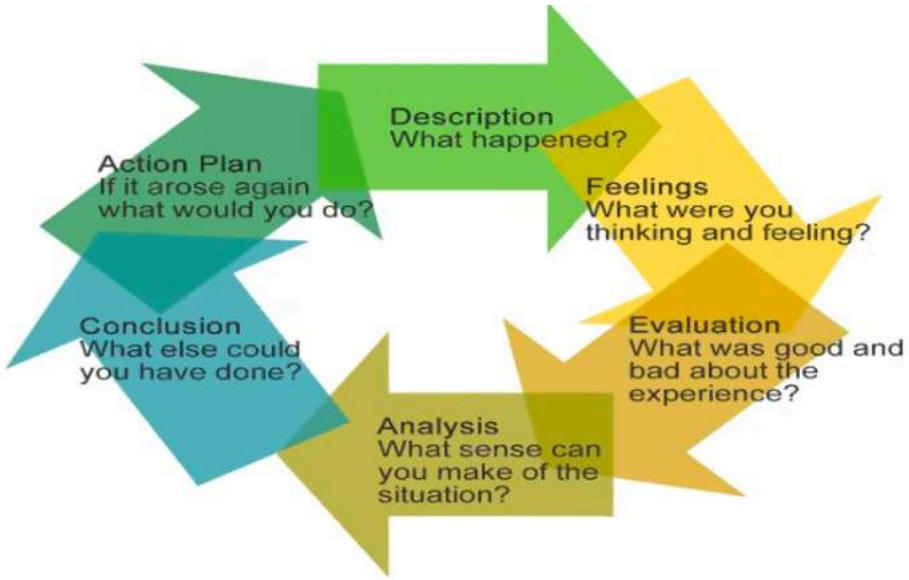
- Creating a contract – what would you put in a contract?
- Choosing a supervisor – who would you want as your supervisor? Would this change as a new graduate paramedic?
- The supervisory relationship – accountability, personal awareness, trust and power and authority, flexible approach

Methods of Delivery:

- Structured one-on-one supervision
- Group supervision
- Peer group supervision
- Online

Reflective Practice for Paramedics:

- An essential process to:
  - Question
  - Make sense of
  - Clarify
  - Develop our knowledge and performance as clinicians



Questions:

- *How does clinical supervision contribute to your leadership as a professional paramedic?*
  - Helps to improve patient outcomes
- *How does clinical supervision contribute to patient safety as a paramedic?*
  - Safety concerns that the paramedic was not aware of at the time
  - Reflective practice

Barriers to Clinical Supervision:

- Individuals' willingness to participate / paramedic culture
- Inexperienced staff facilitating the supervision
- Group dynamics
- Costs
- Work constraints
- Confidentiality issues
- Concerns for managerial supervision
- Geographical location

Week 13 – Mentorship Within the Paramedic Profession Reading:

Mentoring:

- Absolute requirements for the mentoring process to be a success:
  - Attraction – the mentor's influence as a role model
  - Action – the mentor's investment of time and effort
  - Affect – the mentor's emotional support and reassurance
- These translate into three specific research themes:
  - Learning through observation (mentor as inspirer)
  - Perspectives of teaching skills (mentor as investor)
  - Observations of personal qualities (mentor as a supporter)

Learning Through Observation:

- Many paramedic educators felt it was important for mentors to have been through, and understand the university model of paramedic education, in order to be a successful mentor.
- Paramedic educators also felt that expecting a paramedic to become a mentor immediately after leaving university was asking too much.

Perspectives of Teaching Skills:

- All participants agreed that the key way to teach a skill in practice was through a problem-based learning approach.
- The complex clinical environment paramedics operate within was also identified as a significant challenge while teaching students new skills.

Observations of Personal Qualities:

- A key quality that impacted upon a student's capacity to learn was being approachable.
- The qualities of honesty, trustworthiness, supportive-ness, patience, kindness, enthusiasm, respectfulness and maintaining high standards.

Organisational Issues:

- **Recognition:** Of being a mentor – could be via pay banding, payments towards further education, general recognition.
  - Receiving feedback from students about their effectiveness as a mentor was an incentive to continue mentoring

- **Support:** May require a mentor themselves to ensure they have someone to go to when they are challenged or require support.
    - The long-term benefit of supporting mentors would enable students to have positive placement experiences and therefore, when looking for a primary employer, they would be more likely to return.
- **Mental well-being of students:** Lack of additional support surrounding the high cases of PTSD within the paramedic profession.

Current Challenges to Practice:

- **Support:**
    - Lack of time – allowing for limited opportunities for constructive feedback
    - Operational pressures take precedence over mentoring
    - There needs to be an investment into the culture of mentoring
    - Mentors who had not be through the university system may be ill-equipped to fully understand the competing clinical and academic pressures on students
    - It is important that organisations do not force the role on someone who is not ready / suited
- **Recognition:**
    - Some organisations are formally recognising the additional time many mentors invest in students over their contractual obligations
    - Student feedback is an incentive
    - There are no other real incentives such as career progression or pay increase
- **Mental well-being of students:**
    - The combination of organisational 'stressors' and exposure to significant psychological 'stressors', including workplace violence and traumatic events have the potential to place students and paramedics under significant work-related mental stress, creating a vulnerability towards poor mental well-being.
    - A high level of work-related mental stress has also been proven to contribute to poor physical health, impact negatively upon social and family relationships and reduce and individual's ability to undertake their clinical role effectively.