Paramedic or Doctor: heuristics and analytical reasoning in high acuity cases

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**Introduction**

Paramedics make their decisions based on two reasoning. One is the intuitive clinical reasoning and the other one is the analytical reasoning. Intuitive clinical reasoning is based on the insight made from a gained experience on something, while analytical reasoning is based on an analysis done. This is opposed to synthetic reasoning, where no analysis is done on an area. Both reasonings have logic behind them and it is usually based on the clinical paramedics, which are examined currently. Therefore, this paper focuses on heuristics and analytical reasoning in high acuity cases, especially when attending to a patient with emergency need.

**Question One**

The first crew based on the clinical reasoning must have used the intuitive reasoning. The second crew might have been using the analytical reasoning. These conclusions can be drawn based on the arguments they put forth. When considering the depth of the argument, the first crew’s reasoning is not as detailed compared to the second crew’s reasoning. Both decisions made by the crew members are based on scientific knowledge and experience they have (Cornelis, 2006). The first crew member has an experience of around three years and the second one has an experience of around thirteen years. The conclusion made by the first crew is based on intuition and the second crew’s conclusion is based on analytical reasoning and experience (Thompson, 2005).

Intuitive reasoning may have fully accepted their decisions since they both use the aspect of giving a possibility of the situation, which is said to be based on what the crew feels is the problem (Millar, 2011). Intuitive and pattern reasoning may have affected the decisions made by two crews because the reasoning made show clearly that there is still no adequate assurance of
the decisions made because the two reasoning use an aspect of possibility (Langlois, 2002).

Pattern recognition is also another aspect because the patterns of illness of the child can still become accounted for. The child has a history of asthma, hence the pattern of disease made them conclude that the child has asthma (Anderson, 2009). They also concluded on the child having a respiratory infection due to the pattern of diagnosis made on him.

Analytical reasoning also might have been used ultimately in both reasonings (Swanson, 1981). This is because before the conclusions were made, the two crews there did experiments on him to ascertain the situation of the boy. The boy’s diagnosis showed some level of pain making the two crews give a conclusion on administering a painkiller, and based on the issue to do with breathing difficulties both crews concluded on a respiratory infection.

**Question Two**

Knowledge and experience have influenced the decision made by the crew members; first, the analysis given by the first crew member is not very detailed compared to the analysis given by the second member. The first crew member only had a working experience of three years while the second one had an experience of thirteen years. When looking at the decisions made the first member as to the situation, it is not as complex as the second crew member’s conclusion. Therefore, the complexity of the conclusion given by the second crew member is based on experience (Shenfield, 1999).

The two clients also used the intuitive pattern of recognition to make conclusions on the child’s situation based on the information they had on the way the child’s medical history has. Also from experience the child had before the administration of ventoline medication, which gave the child no improvements, there are still some aspects that could be concluded other than the child not having asthma alone (Anderson, 2009). The lack of effectiveness in medication
clearly shows some side effects in the child’s situation that might have resulted from asthma (Bekket, 2000).

Experience really affects the way the paramedics reason (Thompson, 2005). Depending on the level of emergency, the paramedic with a lot of experience made a very comprehensive conclusion and the one with the little experience made simple conclusions (Cydulka, 2007). A difference in experience might be based on the issue with changing technologies and hence this assists the decision-making process for the two different crews, which are in question.

The younger paramedic might have wide exploration technology knowledge, while the older crew member, in terms of technology, might have little experience. From most researches done it was concluded that young people may have a lot of experience in comparison to the older people, and hence, from diagnosis in the world of technology the paramedic, who is young, might have a wider experience in comparison to the older paramedic (Thompson, 2009).

**Question Three**

In relation to Samuel’s condition, the use of analytical reasoning is better than using the intuition reasoning because when looking at the situation, his condition needs more analysis of what should be done. Making a diagnosis based on intuition might be false in comparison with the one based on analytical reasoning because in the latter case, one is sure of the situation that he/she faces (Bilton, 2003).

There are some advantages of using analytical reasoning in treatment and diagnosis. One of the advantages is that the analytical reasoning is very comprehensive compared to the use of intuition (Bercret, 2001). This is because reasoning is based on facts. The other advantage of using analytical reasoning in treatment is that the medication is given in line with the diagnosis.
made on the patients (Bercret, 2001). The use of analytical method also has a disadvantage because it takes time to make comprehensive decisions.

The use of intuition has an advantage because it does not take time compared to the analytical reasoning, which takes a lot of time since it requires a series of analysis. This method still has some disadvantages because the system requires people who have experience and have done frequent diagnosis on people. Another disadvantage of this system is that the conclusions made might not be very comprehensive as they should be and that the wrong treatment might be administered to the patients regardless of their disease background (Crawford, 2008). In addition, a disadvantage of the use of intuition is that the paramedic needs to have a series of options before making a conclusion on the situation with a patient.

**Question Four**

The level of knowledge and experience is likely to affect the reasoning of a paramedic. The paramedic with little experience is likely to make decisions based on analysis, while the other crew member with the most experience is likely to make decisions that he or she is sure about because of intuitions. The rationale is that the one with experience has a lot of knowledge of the conditions compared to the crew member with less knowledge (Maddox, 2002). Hence, from the descriptions of a crew’s situation, there is a likelihood that the one more experienced would make quick decisions.

In terms of patient’s presentation, these are the signs and symptoms that are obvious. There are a lot of factors that are seen to be the reasons that drew the crew to make decision they made. For example, the crew made their conclusions mostly on the level of pain score, blood pressure, respiratory rate and audible respiratory wheeze. There were conclusions that Samuel had a chest problem in relation to the asthma problem he had (Bekket, 2000).
The clinical outcomes based on the safety and harm reasoning are among the factors that might affect the decisions made (World Health Organization, 2005). The first crew is based on enhancing safety of the child since the medication administered is not too complicated for his body (Alberta, 2004). The second crew gives a lot of medication based on the reasoning that the patient is not safe and his safety should be improved.

On the psychology and environment, the decisions made on the child are also seen. The medication given to the child by the two crews is important, but still the environment they are in affects the paramedics’ reasoning (Brindle, 2002). The operations and logistics of the two crews are also two important factors. For example, the first crew member gives medication based on the logic he has on the issue of the child; the same is to the second crew member, who has logic behind the medication she admits.

The level of knowledge might have affected the conclusion that a physician makes (Wilfrid, 2011). Generally, Samuel was diagnosed with asthma. That is a common feature in the two decisions made. Also, based on the symptoms Samuel has, the conclusions given can be validated. Both crew members recommend that Samuel should be administered painkillers to release the situation (Hondras, 2011). The psychology of two crews has also affected the reasoning of the diagnosis. The psychology of the first crew is less compared to the physiology of the second crew. This therefore means that psychology affects the reasoning in clinical aspect. The environment may also dictate conclusions made by paramedics because some infections are common in some areas, while in some areas they are not prevalent (Bilton, 2013).

**Conclusion**

In conclusion, clinical reasoning or heuristics and analytical reasoning in high acuity cases, especially when attending to a patient, is important to ensure that good health of the
patient is achieved. Moreover, it is acknowledged that these reasonings could be based on the
type of the medical practitioner and his or her experience.
References


