

AmphiA

Practice variability in the management of patient deterioration and fit with predefined procedures.

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Background

Rapid Response Systems (RRS) have been implemented worldwide to improve the management of deterioration in patients on a general ward; however, the impact on improving patient safety has stagnated. To increase the understanding of the management of patient deterioration, insights into practice variability and fit with predefined procedures could be helpful.

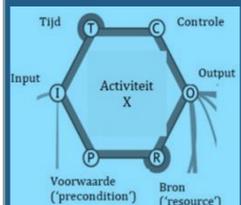


Aim

1. Describe practice variability in management of patient deterioration and rapid response team activation by nurses and physicians, in everyday practice
2. Compare this to predefined procedures, as described in protocols and guidelines

Methods

A retrospective study was performed in a general hospital in the Netherlands.



Practice variability is described based on written reports in patient files and RRT activations, and compared with predefined procedures, using the

Functional Resonance Analysis Method (FRAM) The FRAM labels protocols and guidelines as 'work-as-imagined' and everyday practice as 'work-as-done'.

Conclusion

The results of this study shows a **lot of practice variability** in everyday practice in the management of patient deterioration and RRT activation by nurses and physicians. The comparison with predefined procedures suggests a **lack of fit** between protocols and guidelines and everyday practice.

Clinical implications

- **Re-design and re-implementation** of predefined procedures are needed to improve the fit with everyday practice and to create documents that convey unambiguous statements about clinical actions and their timing.
- **Practice variability** means that in some cases 'things go right' while in other 'things go wrong' due to difference performance of nurses and physicians. Future research should focus on identifying core activities for different groups of patients and to give professionals the ability to succeed under variable conditions.



Results

In **40 cases**, practice variability is shown in the use of vital parameters, worry, consultations with the ward physician and medical specialist, choices of treatment interventions, RRT activation and follow-up. Comparison with predefined procedures shows that the process in **everyday practice is more complex** and consists of more activities and aspects than the process in predefined procedures.

1. Monitoring vital signs; In work-as-imagined EWS monitoring is based on previous values as in daily practice it is based on various reasons for example patients call, nurses worry and physicians instruction. Vital parameters are monitored more frequently than described in predefined for example before a RRT activation EWS monitoring varies from every two hours to every 15 minutes.

2. Worry; Work-as-imagined describes **nurses' worry** as criteria for RRT activation while in work-as-done, worry of nurses was reported but not used as the main reason for RRT activation. Work-as-imagined describes nothing about **patients' worry** or concern while patient worry played a role in several cases

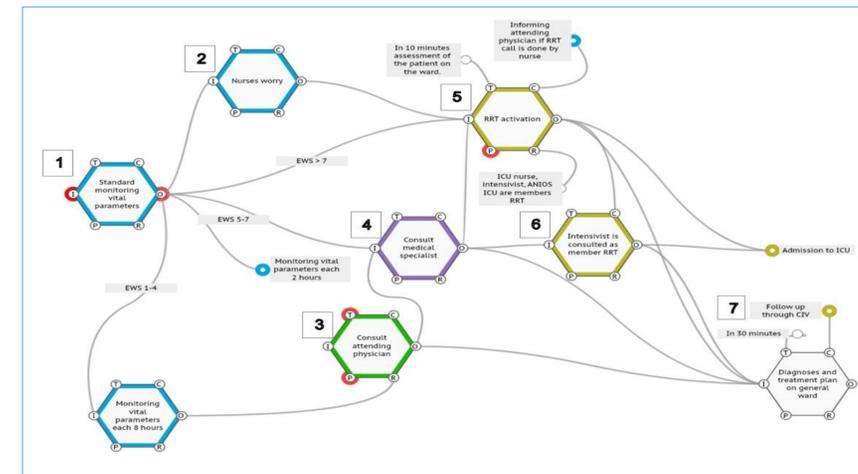
3. Consulting the ward physician; In work-as-imagined the role of the ward clinician is briefly described. This contrasts with work-as-done, the ward physician is the first point of contact and has an **important role** in the detection and treatment of deteriorating patients. Also time to **physical assessment** and **re-assessment** varied, **and** the role of a **medical specialist** varied.

4. Treatment intervention; In work-as-imagined, up to and including an EWS of 7, treatment interventions are allowed without an aspect of time or reassessment. Cases varied as in some cases, nurses and physicians chose treatment interventions and make **appointments about communication** and **evaluate** those interventions in a timely manner while other cases up to and above a EWS of 7, show **cycles of interventions and consultations** with medical specialist, **individual re-assessment** without effective communication.

5. RRT activation; Work-as-imagined gives an EWS >7 or worry as criteria for RRT activation, whereas RRT activations are based on more criteria in practice. In some cases, nurses and physicians used the EWS, clinical judgement, the unsatisfactory effects of interventions to **activate the RRT**. Other cases shows reports of worry, ongoing deterioration, cycles of contact yet **struggle with timely RRT activation**. Work-as-imagined does not include instructions regarding RRT support for patients with a **'do not transfer to ICU'** order in various work-as-done actions of the RRT. Work-as-imagined described the **members of the RRT**, work-as-done shows patient reviews with incomplete RRT.

6. Follow-up; As the protocol **described** the follow-up of patients who are not admitted to the ICU by the CIV in work-as-done, this is **not performed**.

'Work-as-imagined' model



'Work-as-done' model

