

Computerized decision support system for workers' health surveillance in the ambulance sector

Plat MJ, Frings-Dresen MHW, Sluiter JK



Coronel Institute of Occupational Health, Academic Medical Center,
University of Amsterdam, Amsterdam, The Netherlands, m.j.plat@amc.nl



1 Introduction

- Job-specific workers' health surveillance (WHS) for ambulance personnel was developed
- Related to WHS a guideline with interventions was written for occupational physicians
- National implementation WHS chance to make computerized tool to support execution of WHS and starting interventions

3 Methods (1)

- WHS based on occupational health requirements: psychological, physical, sense-related and cardiovascular requirements
- Users computerized system for WHS:
 - Workers: questionnaire on occupational health
 - (Assistant) physicians and allied health professionals: score sheets and testing protocols
 - Occupational physician: intervention guideline to be used in individual worker
- Tools developed on paper, afterwards converted into computerized decision support system
- Usability check interface system with stakeholders

5 Results (1)

- Worker and professional log in: tailored part for every user
- Screeners for psychological health requirements are completed online by the worker
- Test results of physical health requirements are registered by assistant physician
- After completion, the OP logs in: gets an overview of results per worker
- The clinical algorithm of the system will suggest interventions (see no 6)
- OP notifies which intervention was advised to worker

7 Conclusions

- Monitoring system of workers' health developed
- System gives input for evaluation occupational health policy of ambulance personnel
- Future study should focus on whether occupational physician starts interventions and reports it in the system

2 Objective and goal

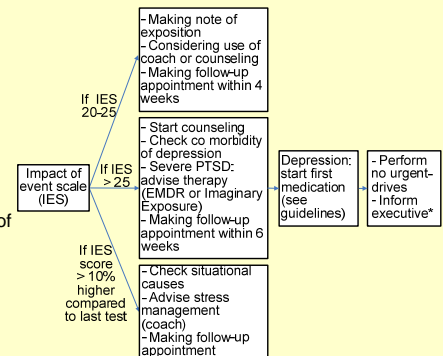
Objective was to develop a national computerized decision support system for a workers' health surveillance (WHS) of ambulance personnel

The system should support the execution of WHS, provide an overview of workers' health and suggest the interventions that an occupational physician can initiate

4 Methods (2)

Example of decision overview as input for computerized decision support system

Score on impact of event scale is calculated from questionnaire filled out by worker. Clinical algorithm of system is programmed to present appropriate intervention regarding the score.



6 Results (2)



Results part of WHS	No problem	Possible problem	Problem	Proposed intervention to OP
Did you have problems with hearing in the ambulance?	No			- OP provides the employee a test per computer or audiogram (audiology centre) - Adapt hearing aid - Dependent on results: refer to ENT specialist
Did you have problems with hearing outside the ambulance?	No			- Check possibility hearing protection (use multidisciplinary guideline) - Within four weeks a follow-up appointment is planned.
Whisper-test			>4 errors	

8 References

- Sluiter JK. High-demand jobs: age-related diversity in work ability? Appl Ergon 2006; 37(4): 429-440.
- Sluiter JK, Frings-Dresen MHW. Pre-employment examination and a Workers' Health Surveillance for the ambulance sector. Coronel Institute of Occupational Health, Academic Medical Center, reportno 05-06, 2005.



email: m.j.plat@amc.nl

