

# Testing of draft guidelines as a form of pilot implementation



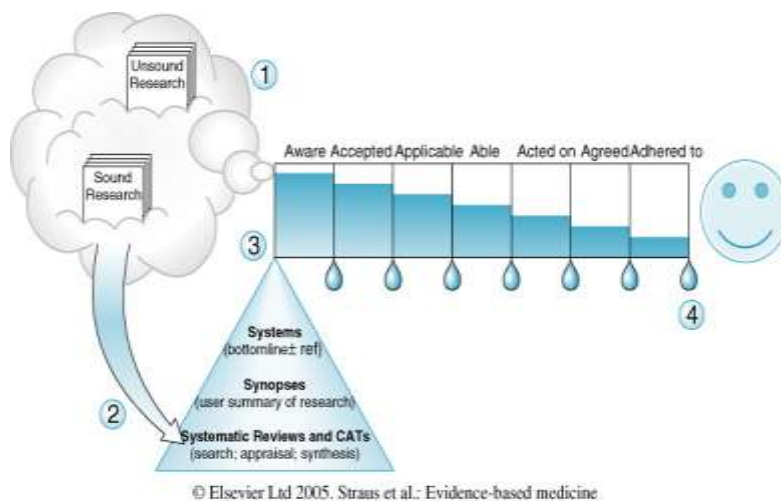
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## Evidence Pipeline



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## Why doctors don't follow guidelines

(Cabana et al. JAMA 1999)

- Systematic literature review: 76 studies
- Most important obstacles:
 

– Not aware of existence:	48 %
– Environmental factors:	45 %
– No agreement:	33 %
– Not familiar with content:	31 %
– No self-efficacy:	19 %
– Patient factors:	17 %

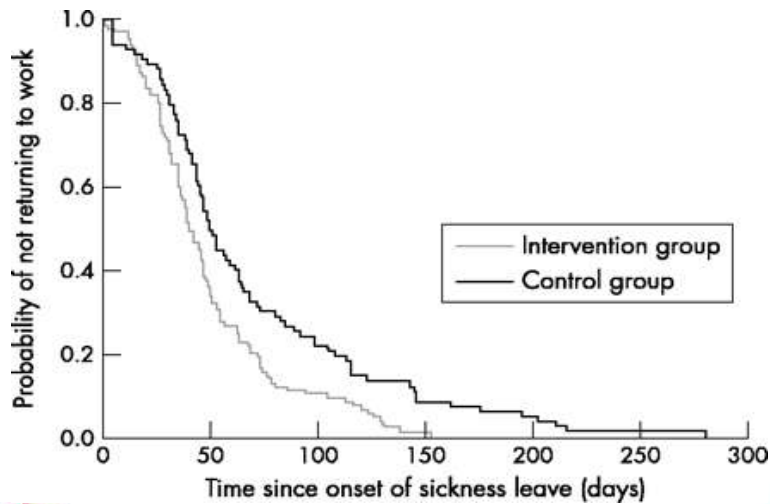


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## Evidence of effectiveness guideline on mental health

(van der Klink et al. *Occup Environ Med* 2003;60:429-437)



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## Evaluation on process level

(Nieuwenhuijsen et al. *Occup Environ Med* 2003)

- Work related mental health disorders:
  - Optimal continuity of care (as defined in the practice guideline) was significantly related to a shorter time to both partial and complete work resumption (hazard ratio (HR) 0.3; 95% CI 0.2-0.6)



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## Compliance with guideline on mental health disorders

(Rebergen DS et al. *Scand J Work Environ Health* 2010;36:488-98)

- Applied by 5 Occupational Physicians for 240 workers
- Mean score per case on performance indicators: 50%
- Statistical significant relation between higher performance score and positive outcome (RTW)



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## NVAB member inquiry 2010 (N=842)

- The contracts by my OHS offer sufficient possibilities to work according to the guidelines
 

yes	319	37.9 %
no	343	40.7 %
no opinion	180	21.4 %
- The contracts which I agree with my clients offer sufficient possibilities to work according to the guidelines
 

yes	417	49.5 %
no	272	32.3 %
no opinion	153	18.2 %



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## NVAB-guidelines for occupational physicians

### **Published:**

- Low back pain
- Mental health disorders
- Visual acuity of VDU-workers
- Workers in sheltered workshops
- Upper limb disorders (RSI)
- Work-related asthma / COPD
- Contact dermatitis
- Noise-induced hearing loss
- Ischemic Heart disorders
- Pregnancy and Work
- Influenza
- Cancer and Work

### **In preparation:**

- Prevention of weight gain
- Latex allergy
- OSAS



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## Guideline development, the process

### **Initiation/Preparation**

1. selection of topic
2. analysis of bottlenecks
3. project plan & project team

### **Development**

4. formulation clinical questions
5. research phase (lit. + focus gr.)
  - evidence reports
  - other considerations
  - formulation recommendations

6. draft guideline

7. commentary phase

8. practice (pilot) test with practitioners → final version

### **Application**

9. autorisation
10. publication
11. support with implementation



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## Evaluation of practice guidelines

- Process evaluation
  - input: knowledge or attitudes towards the guideline
  - process: performance / compliance / barriers
  - output: advice given
- Outcome evaluation
  - satisfaction of patients and doctors
  - intermediate: use of guidelines → change medical practice
  - long term: outcome on patient level



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## Practice test (pilot)

part of guideline development

- **Purpose:** testing of feasibility of draft guideline in practice
- **Means:** analysis actual performance by performance indicators
  - consensus in development team about indicators
  - participating OP's receive short training
  - analysis on patient level (in total: at least 100 cases in 3 month period)
- **Result:**
  - adjustment of text of draft guideline
  - important clues for implementation



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## Performance-indicator

- “essential programmatic or normative aspect of care due to the practice guideline”
- mostly based on a if-then logic
- scoring procedure blind (SPSS syntax)



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### Consultation registration form COPD Guideline

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Datum Consult...../...../..... Consult nummer ..... in deze episode Duur consult....minuten  
 Naam bedrijfsarts..... Arbo-dienst.....  
 Code Patiënt..... Geboortedatum...../...../..... Geslacht  man  vrouw  
 Verzuim:  ja  nee Eerste verzuimdag deze episode...../...../.....  
 Functie Patiënt.....

#### Problemeriëntatie en diagnose

dyspnoe   
 langdurig hoesten   
 slijm opgeven   
 piepen op de borst   
 klachten voortdurend aanwezig   
 in voorgeschiedenis veel roken   
 blootstelling aan andere risicofactoren in voorgeschiedenis   
 klachten niet-reversibel op bronchusverwijders   
 geen normale longfunctie, ook niet na diagnostische steroïde-test   
 informatie voor diagnose voldoende   
 bevestiging diagnose door huisarts   
 bevestiging diagnose door longarts als bedrijfsarts zelf diagnose gesteld   
 criteria NHG Standaard geraadpleegd

#### Beoordeling belasting en belastbaarheid

langdurige of intense blootstelling aan gassen, dampen of aerosolen in het werk   
 vermoeden van relatie COPD-werk   
 energetische belasting nagevraagd   
 psychosociale belasting nagevraagd   
 spirometrie verricht ...   
 FEV<sub>1</sub> .....% van de voorspelde waarde  
 FVC .....% van de voorspelde waarde  
 Ernst COPD is: at risk   
     licht   
     matig   
     ernstig   
 bronchiale hyperreactiviteit aanwezig   
 co-morbiditeit aanwezig   
 gegevens uit maximale inspanningstest met bloedgasanalyse bekend

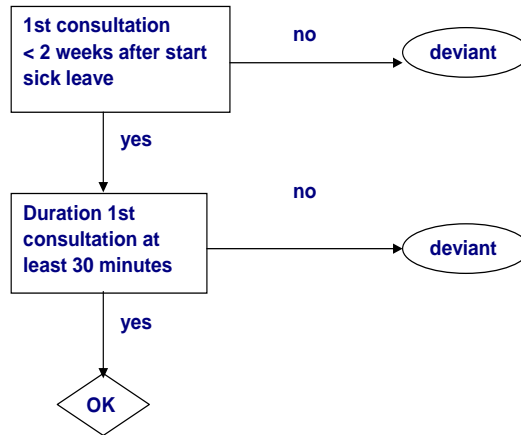


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## Performance-indicator:Criteria mapping

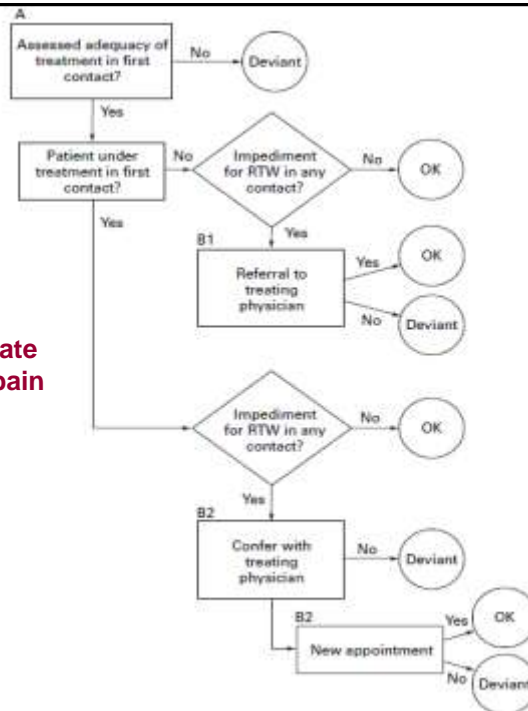
(example from guideline on rehabilitation of workers with mental health disorders)



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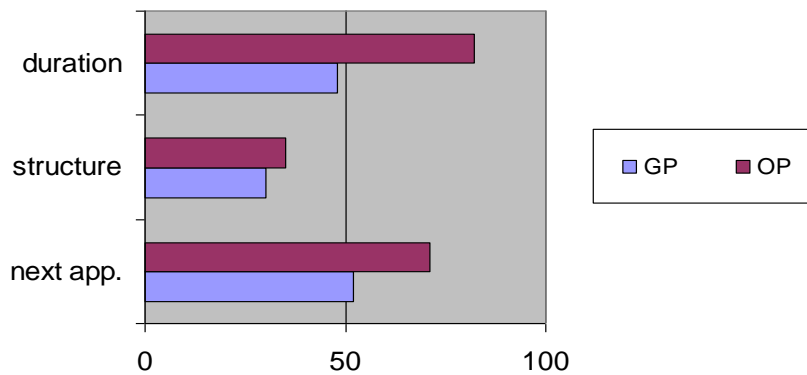
Criteria map for assessing inadequate treatment of back pain





## Measured performance

(Hulshof et al. 2002)



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## Scores performance-indicators CANS ('RSI')

- 25% wrong diagnosis CTS
- 89% no referral to multidisciplinary treatment after long period of sick leave
- 21% wrong advice regarding resuming work
- 52% wrong time-contingent return to work schedule



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## Occupational Asthma

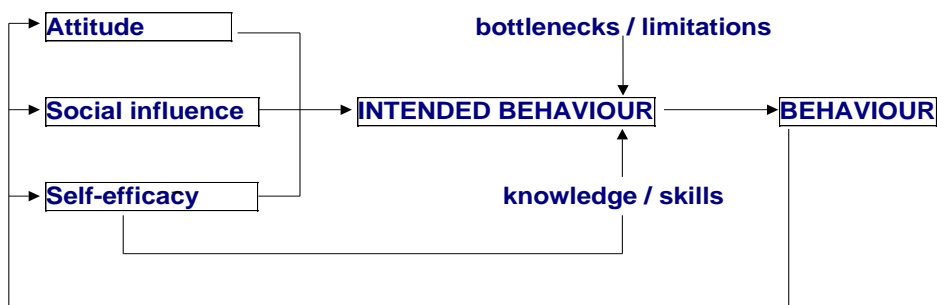
- 17% no peakflow measurements in case of suspicion relation with work
- 45% no referral to pulmonologist in case of indication
- 10% no advice on return to work
- 76% no appointment with the worker on evaluation after RTW



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## Additional questionnaire, based on ASE



The ASE-model on determinants of behaviour



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## Limitations / drawbacks

- Cost time and money
- Period of 3 months only feasible in disorders with high incidence
- In guidelines on prevention: more artificial approach: limited number of situations or testing with case vignettes (scenario)
- Draft versions of guideline may be 'leaked'



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## Conclusions

- A practice test is a valuable tool in guideline development: it improves the guideline and helps the implementation
- Registration forms → elaborated into checklist as implementation aid
- Participants may become 'agents of change'
- It offers goodwill from practitioners: their daily practice is taken seriously



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## Not in the head but in the heart



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