Chronic disease and work

Dr Angela de Boer
Coronel Institute of Occupational Health, AMC
PI Chronic disease and work
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Coronel Institute of occupational health, AMC

- 70 Colleagues

- Disease $\rightarrow$ Work
- Work $\rightarrow$ Disease
Overview

1) Getting insight in the work participation of employees with a chronic disease and its societal impact
2) Identifying factors which are associated with return to work and work participation
3) Interventions to support work participation in employees with a chronic disease

• Statements
Patients of working age with a chronic disease and their work participation
Prevalence of chronic disease

Source: WHO

Prevalence of Chronic Disease and Disability among Men and Women Aged 50-74 Years in the United States, England, and Europe.
Increase of workers with chronic disease

- Increase of patients of working age with a chronic disease
- Better treatment and higher survival rates
- Ageing (working) population
- Higher pension age

- In the Netherlands 5.3 million people of working age with a chronic disease or impairment (32%)
- Expectation in 2030: 7 million people

- Societal participation becoming more important

Nationaal Kompas, EUROSTAT
Workers with a chronic condition in NL

Nationale Enquête Arbeidsomstandigheden, TNO/CBS, 2015

Percentage

Cancer, AIDS
Epilepsy
Depression
Skin
Diabetes
Gastrointestinal
Asthma
Heart disease
Migraine
Problems back
Problems leg
Problems arm

Percentage
Chronic disease and return to work

• Return to work and staying at work regarded as a **rewarding** experience by patients themselves
  
  – Higher quality of life
  – Income and Insurance
  – Back to normal
  – Structure and social contacts
  – More active and healthy life style

Cancelliere 2016; Callander 2013; Boot 2016
Employment and chronic disease

Working with a chronic disease is also regarded as difficult

Working people with chronic diseases report:\n\begin{itemize}
\item Significantly reduced work productivity
\item Living with less income
\item Having poor mental health
\end{itemize}

People of working age with a chronic disease have:\n\begin{itemize}
\item Higher chance of unemployment: 
  \begin{itemize}
  \item 74\% of people with a chronic disease are \textit{not employed}, versus 34\% of people without \footnote{NIVEL 2015;}
  \end{itemize}
\item Higher chance of disability pension
\item Especially for young adults with long-standing (childhood) disease
\end{itemize}

\footnote{K.Lorig, Stanford; NIVEL 2015;
Chronic disease and return to work

- **Cancer:**
  - Average return to work rate: 64% after 18 months\(^1\)
  - Cancer survivors: 37% higher chance of unemployment\(^2\)

- **Heart failure:**
  - Average return to work rate: 68% after 12 months\(^3\)
  - 24% are not working at pre-heart failure levels\(^4\)

- **Inflammatory bowel disease:**
  - 23% receive disability pension\(^5\)
  - 78% of the workers experience work difficulties\(^5\)

- **Acquired brain injury:**
  - Average return to work rate: 40% after 24 months\(^6\)

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\(^1\) Mehnert 2013; \(^2\) De Boer et al. JAMA 2009; \(^3\) Roth 2016; \(^4\) Slebus 2012; \(^5\) de Boer 2016; \(^6\) van Velzen 2016
Summary

– Increasing numbers employees with a chronic disease
– Employment is important for people
– However, more likely to be unemployed or receive a disability pension
What influences return to work and work participation in employees with a chronic disease?
Factors associated with work participation

- Younger age
- Male gender
- Higher education
- Fewer physical complaints
- Higher work ability

Cancelliere 2016; Vooijs 2015; Donker-Cools 2015; Detaille 2009; Dekkers-Sanchez 2008; de Boer 2008
Fatigue

• Prevalent problem in many chronic diseases: cancer, heart failure, IBD, rheumatic disease, diabetes
• Long-term > 5-years
• Strong predictor of prolonged sick leave duration and unemployment
• Patients say:
  − “I was too tired because of heart disease and stopped working”
  − “I work 20 hours divided over the whole week. I sleep in the afternoon”

Cognitive impairments

- Problems with:
  - Attention
  - Speed of information processing
  - Verbal and visual memory
  - Multitasking
- Cognitive impairments associated with unemployment
- In patients with:
  - Cancer (chemobrain) \(^1\)
  - Acquired brain injury \(^2\)
  - Heart disease \(^3\)
  - MS \(^4\)

\(^1\) Nieuwenhuijsen 2009; \(^2\)van Velzen 2015; \(^3\)Ghanbari 2013; \(^4\)van der Hiele 2014
Workplace

- Adjusted work conditions enhance RTW
- Heavy work associated with higher unemployment risk
- Employers play a key role to create good work conditions

Vooijs 2015; de Boer 2008; Kristman 2016
Doctors: knowledge and communication

- Treating doctors feel ill-equipped to address occupational issues of their patients \(^1\)
- However, they have contact early in the treatment process and their patients raise work issues \(^1\)
- GPs are becoming increasingly important \(^2\)
- Involvement of treating doctors in work issues does improve return to work \(^3\)

\(^1\) Morrison 2015; \(^2\) de Kock 2016; \(^3\) Verbeek 2003
Summary

– Several person-related and disease-related factors influence return to work and length of sick leave

Attention needed for:
– Fatigue
– Cognitive impairments
– The role of the workplace
– The role of doctors
Chronic disease and work participation: Interventions to help employees with a chronic disease
Interventions: reviews

• Important to provide employees with a chronic disease with programs to support their return-to-work

• Systematic (Cochrane) reviews:
  • Cancer ¹
  • Brain injury ²,³
  • Multiple sclerosis ⁴
  • Back, neck, shoulder pain ⁵

**Multidisciplinary interventions** led to higher return-to-work rates than care as usual

¹ de Boer 2015; ²Turner-Stokes 2015; ³Donker-Cools 2016; ⁴Khan 2019; ⁵Schaafsma 2013;
Multidisciplinary interventions: a combination of psychological, vocational, and/or physical interventions
Interventions enhancing work participation

• Disease generic interventions aimed at the workplace
• Workers with a chronic disease

• Effective interventions provide:
  • Adaptations in work including equipment, working times, transportation
  • Case management worker and employer, early contact with work place
  • Contact with work place by (health care) professional

1 Vooijs 2015; 2van Oostrom 2009; 3 Franche 2005; 4 Nevala 2015
1. Hospital-based work support: cancer

Content

- 4 appointments with an oncological nurse of ± 15 minutes each
  - To guide patients to return to work
  - Occupational training for nurse

- 1 brainstorm session with supervisor, occupational physician, and patient

- Letter from the treating physician to OP

Tamminga, 2013
1. Results

Main results (RCT)

- N=133 female patients mainly with breast cancer
- Primary outcome partial return to work
  86% (intervention group) versus 82% (control group)
  Relative risk: 1.03 (95% BI 0.84-1.2) , no significant effect
- Easily accepted in usual care

Barriers

- Communication between OP and treating physician hard to improve
- Not tailored: same intervention for all patients
- Vulnerable groups not included
2. Cancer survivors with work loss

- Cancer survivors without a job
- Tailored return to work program
- Developed in cooperation with Dutch Social Security Agency (SSA) and a national re-integration agency
- Participants, together with a RTW coach, decide which needs should be addressed to RTW

- Content:
  - Developing his/her consensus-based tailored RTW plan
  - Receive coaching on identifying obstacles or RTW
  - Exploring possibilities for (therapeutic) return to an actual workplace

Van Egmond, 2015
2. Results

Main results (RCT)

• N=171 patients mainly with breast cancer
• Primary outcome return to work (get a job)
  25% (intervention group) versus 21% (control group)
  Hazard ratio 0.86 (95% CI 0.46–1.62), no significant effect

Barriers

• Less than half of the participants in the intervention group received program according to protocol
• Only 6% of the invited CSs eventually participated
• Vulnerable groups difficult to include?

Van Egmond, 2016
3. Early vocational rehabilitation

- Patients with acquired brain injuries
- Content:
  - Stage 1: Orientation on work
    Intake treating physician and vocational specialist
  - Stage 2: Investigating the gap between patients’ abilities and work
  - Stage 3: Work training
    Patient
  - Stage 4: Finalising Early Vocational Rehabilitation
    patient, employer and occupational physician

Van Velzen, 2016
3. Results

Main results (Feasibility study)

• N=23 patients
• Feasible
• Structured protocol used
• Information provided
• 80-90% RTW within 12 months

Barriers

• Not enough time, not enough contacts
• Connection between work requirements and work training should be improved
• Difficult to implement in usual care

Van Velzen, 2016
4. Workers with Rheumatoid Arthritis

- Patients with rheumatoid arthritis, with a job
- Having work difficulties

- Integrated care:
  - Multidisciplinary team with occupational physician, occupational therapist, patient’s own rheumatologist
  - Treatment plan based on active participation

- Workplace intervention:
  - Consensus between patient and supervisor regarding feasible solutions for obstacles for functioning at work

Van Vlisteren, 2016
4. Results

Main results (RCT)

- N=150 patients rheumatoid arthritis
- Primary outcome at-work productivity loss in hours per week
  No change (intervention group) versus 0.1h less loss (control group)
  B: 0.24 (95% CI −0.43 to 0.90), no significant effect
  Improvement of supervisor support

Barriers
- Relatively mild degree of limitations in work functioning
- Vulnerable groups not included?

Van Vlisteren, 2016
Summary

- Multidisciplinary interventions have shown to effective in enhancing return-to-work in reviews

- Difficult to include vulnerable groups in interventions, but they might need it most

- Difficult to include the workplace in interventions and the role of employer needs more attention

- Communication between stakeholders needs to be enhanced and health care providers should be included in return-to-work issues
Conclusion

– Number of workers with a chronic disease is increasing

– Return to work can be difficult

– **Multidisciplinary interventions** to support RTW can be effective

– Need for inclusion of multiple stake holders including health care providers and employers

– Need for inclusion of vulnerable groups
Thank you!

a.g.deboer@amc.nl
Statements

– “One size fits all” excludes vulnerable groups in interventions aiming at RTW for workers with a chronic disease. Selection of vulnerable workers with a chronic disease eligible for interventions is inevitable.

– “Work” has to be an essential part of clinical care.

– Work is essential for everybody.

– Disease-generic interventions are sufficient and disease-specific interventions are unnecessary.