“Rehabilitation ergonomics” as a strategy to support return to work for (breast)cancer survivors

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Rehabilitation ergonomics (Rehab.Erg.)

Rehabilitation Ergonomics is the practice of applying scientific and functional principles to provide a match of work and worker that prevents injury or assists in the return to work process.

The practitioners are therapists and other specialists whose backgrounds include anatomy, physiology, kinesiology and pathology and ergonomics. They must analyze both the humans who perform work activities and the setting in which they work.

Rehabilitation ergonomists specialize in functional evaluation, improvement of functional work performance, education of the worker and redesign of work to reduce musculoskeletal stressors.

(Susan J. Isernhagen; DSI Work Solutions, Inc.)
Primary Goals of Rehabilitation Ergonomics

- Improve the productivity of individual workers and the work group
- Maintain the health and improve the safety of the worker in the workplace
- Decrease lost work time due to illness or injury
- Enhance return to work processes and minimize the likelihood of disability-induced retirement
 Functional capacity evaluation (FCE): testing (with RTW perspective) of functional activities (sitting, standing, lifting, pushing, pulling, carrying, gripping, …)

 Work rehabilitation: Work-related rehabilitation provides a structured regime that allows the worker to increase function and regain work capabilities (physic &/or psychic).

 Job modification:
  - to match the work to the capacity of the worker
  - to promote return to work and prevention of reinjury.

 Early intervention: Immediate intervention when a work injury or illness threatens work ability, reduces the lost time for the worker and increases healing and functional work capability (e.g. dis-ability management)
Rehabilitation approach

Ability profile

capaciteiten
persoon

vereisten
job

Job demands

werkbare situatie

Intervention

ingrepen

Treatment

ergonomie

training

gerichte revalidatie,
....
Methods

Assessments:

- Functional capacity evaluation (FCE)
- Psychological & psychosocial functioning
- Job-description & workload
- Context of worker:
  - Transport to work
  - Private situation
Instruments

Instrument to analyse situation

- Integration von Menschen mit Behinderungen in die Arbeitswelt (IMBA)

Instrument to implement RTW:

- Dis-ability management
  - Management (organisation level)
  - Case-management (individual level)
DM & DCM

Employee and Treating Practitioner(s)

Internal/External Resources may include:

- Ergonomics Committee/Experts
- Employee Benefits Officers or Union Benefits Advisors
- Safety Committees/Experts
- Employee Assistance Programs
- Union Counsellors
- Employment Equity Officers
- Allied Health Professionals
- Private/Public Education Sources
- Government Support Programs
- Associations
- Community Organizations

Labour Program / Human Resources and Skills Development Canada, Workers Compensation Boards, Departmental Human Resources

Manager

Employee’s Physician

Committees; Disability Management Health Strategy Occupational Health and Safety Committee (Local or Divisional Level)

Worker Representatives

Senior Management

Long Term Insurance Provider

http://www.tbs-sct.gc.ca/hrh/dmi-igi/steps-etapes/bdmp-epgi05-eng.asp
Assessment System to Improve the Integration of People with Disabilities in Work

« Job demand » Form
Ability Form (transparent)
Matching

http://www.imba.de
### IMBA (exempl. Score-form)

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**IMBA : matching**

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<td>Bending</td>
<td>X</td>
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<tr>
<td>Arms in difficult positions</td>
<td>X</td>
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**Note:**
- X: Indicated as a match
- O: Not indicated as a match
Breast cancer (BC)

- Increasing prevalence
- Decreasing age at diagnosis
- Increasing 5-year surviving
- Threat to
  - quality of life (indiv. level)
  - participation (social & professional) on indiv. Level & company level)
  - Soc. Security & non-active labor force (company & society level)
Return to work (RTW) & BC survivors

Problems: patient level
- Diagnosis & treatment
- Functional limitations (chronicity)
- Psychosocial & psychologic problems
- Relevant others (private, social, work,...)
- Financial consequences

Problems: organisation level
- Effect of chronicity on productivity
- Replacement worker
- Administrative &/o financial consequences
Bottlenecks

- Transition into survivorship
  - Process by patient, not by employer
  - Treatment of patients in cure/care
  - Policy in social insurance / society

- Changes
  - Perspectives in life
  - work-ability

- Treatment (cure & care) do not involve “work”

- Employer has no (or few) contact with cure/care or other stakeholders
Possible solutions

- All stakeholders involved:
  - Participative process
  - Knowledge off & respect for different points of view
- Phase of the treatment & rehab process
  - Diagnostic phase
  - Treatment (patient)
  - Surviving (worker)
- Persons/Functions involved at relevant moments in RTW process:
- Specific actions: tailor-made RTW process (!?)
Solution strategy:

- Tailormade use of rehabilitation ergonomics
- Step by step:
  - Intake & evaluation prognostic factors
  - Assessment
  - Monitoring RTW process
  - Follow-up
Eclectic model for OT in RTW for BC patients

BODY STRUCTURE AND FUNCTION (impairment)

ACTIVITIES (limitations)

PARTICIPATION (restriction)

Medical

Functional

RTW

Capabilities

Work demands

Physical

Cognitive

Emotional

Interpersonal

Personal factors: disease specific
Treatments related

Health condition (disease/disorder) (breast cancer)

Environmental Factors: organizational legal financial

Activity related factors: work related factors work related interventions

Health & well-being

Symptoms

Work ability

Work performance

Sustainability (Retention)

Act on personal factors
Work focused treatment change disability cognitions organize training

Act on environmental factors
Adapt Organisaton advice on legal/financial

Act on activity place
Ergonomics adapted workplaces
Stakeholder involvement

- Patient & relevant others
- Cure/care
  - Medical doctors / oncologists
  - Oncol. Rehab team
  - Home-care & general practioner
  - Social insurance
- Employment:
  - Collegues
  - N+...
  - Empoyer
  - Occup physician
Detail flow chart

Process flow

1. Assignment
   - Assignment document intake report
   - Case study team discussion intake

2. Inventarisation prognostic factors
   - Known?
     - Yes
     - No
       - Clear out
         - Choices to make
           - Assessment
             - Missing issues: finding and gathering info
               - Client discussion

3. Inventarisation capacities & job demands
   - Assignment document intake report
   - Using questionnaire
     - Using instruments
       - Gathering & interpreting information
         - Work place observation
           - Writing report of advice
Detail flow chart

Assessment

Inventarisation capacities & job demands

known?

yes

no

clear out

therapeutic actions

keuzes

process of Return

choices to make

using instruments gathering & interpreting information
work place observation
writing report of advice

WRI , IMBA (capacities- demands)
Work place analysis -advice

Therapy-program

IMBA profile comparison: interpretation occupational capacities

profile comparison and understanding discussion(s)

effectuating steps of the road-map
organising exhange of ideas report

own job other job other job

own company own company other company
therapeutic action (realising or coordinating) profile comparison and understanding discussion(s) effectuating steps of the road-map organising exchange of ideas report using questionnaire conclusions closing of the case

process of Return

own job other job other job

own company own company other company

follow-up

questioning after 3 months

OK? yes no

questionnaire

using questionnaire conclusions

closing of the case

KU LEUVEN

MÉT
Magyar Ergonómiai Térsésg

ACT
desíron
Conclusions:

ysts cancer survivors:

- Number increases
- Age decreases
- Surviving increases; chronicity / disabilities
- Work is part of quality of life

Rehabilitation ergonomics can be of good use to assist RTW in BC survivors

- Systematic approach
- Based on abilities
Discussion

Rehabilitation for (breast cancer) patients is researched:
- Focus on “cure”
- Research on specific elements (e.g., fatigue, esthetic issues,…)

RTW research in BC:
- Starting by care-disciplines
- Employer poorly involved (different sociale systems!)
- Ergonomics are mentioned but not systematically implemented
Discussion

- Ergonomists do not (often) “cross the bridge”
- Information flow:
  - Poorly from care to work
  - Even less from work to care
- Rehabilitation ergonomy should be more:
  - Subject of exchange of knowledge
  - Researched
  - Implemented


Additional resources:

- [http://journals.cambridge.org/action/displayJournal?jid=IDM](http://journals.cambridge.org/action/displayJournal?jid=IDM)
Thank you
For your attention
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