

Rehabilitation and return to work after cancer: Executive summary

Literature review

European Risk Observatory

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Executive summary

The project ‘Rehabilitation and return to work after cancer — instruments and practices’ is intended to provide new insights into the problems encountered by workers affected by cancer and their employers. Furthermore, it will make recommendations regarding successful instruments, interventions, programmes and practices to support the return to work (RTW) of workers affected by cancer.

Each year, an estimated 3.2 million new cases of cancer are diagnosed in Europe. About half of these occur in people of working age. There are geographical differences in cancer occurrence in Europe; however, the forms of cancer with the highest incidences are breast, colorectal, prostate and lung cancer. These types of cancer were estimated to account for over half of the overall burden of cancer in Europe in 2012¹.

The impact of cancer on a person’s daily life is immediate and striking. The diagnosis is usually accompanied by long periods of sickness absence because of medical treatments. However, overall, cancer management has improved during the past three decades, and therefore the overall number of people who survive cancer is increasing². Many cancer survivors face long-term symptoms and impairments, such as fatigue, after treatment ends.

These symptoms and impairments can affect the work ability of survivors, making it more difficult to remain in or re-enter the job market. Research shows that most cancer survivors are able to stay in or return to work³, but that, overall, the risk of unemployment is 1.4 times higher among cancer survivors than among healthy controls⁴.

Optimising the rehabilitation and RTW of workers with cancer is therefore important both to improve the well-being of this vulnerable group and to reduce the societal and financial impact of cancer cases on (European) enterprises and society at large.

The overall project

The project ‘Rehabilitation and return to work after cancer — instruments and practices’ will inform policy on the emerging issue of rehabilitation and RTW after cancer and provide national administrations with examples of successful policies and interventions. It is divided into six main tasks:

1. literature review on rehabilitation and RTW after cancer;
2. detailed descriptions of policies, systems, programmes or instruments in the field of rehabilitation and/or RTW with or after cancer;
3. company case studies;
4. qualitative research with experts and intermediaries;
5. final report, including analysis and policy options;
6. European Agency for Safety and Health at Work (EU-OSHA) stakeholder workshop.

The report *Rehabilitation and return to work after cancer: a systematic review of the literature* is meant to provide an overview of what is known based on the scientific literature. The specific objectives of the review are:

- to review existing literature to collect knowledge on the safety and health implications for workers who are returning to work after or during cancer treatment, especially for occupational cancer;

¹ Ferlay et al. 2013.

² de Boer 2014.

³ Bouknight et al. 2006, Bradley and Bednarek 2002, Maunsell et al. 2004, Sanchez et al. 2004, Short et al. 2005, Spelten et al. 2002, Spelten et al. 2003.

⁴ This has been shown in a systematic review including a meta-analysis and meta-regression analysis (de Boer et al. 2009). The analyses included 20,366 cancer survivors and 157,603 healthy control participants, and 16 studies from the United States, 15 from Europe and 5 from other countries.

- to gather information on wider issues that may affect the worker (compatibility of treatment and work, employment, etc.);
- to gather information on costs to employers and workers, e.g. for days lost, adaptation of equipment, compensation;
- to gather information on the issues relevant to small and medium-sized enterprises (SMEs);
- to gather information on good-practice examples of RTW interventions.

Structure of the literature overview

The report, *Rehabilitation and return to work after cancer: literature review*, concerns the available scientific literature on rehabilitation and RTW after cancer. It includes an overview of the available initiatives, policies and practices on RTW after cancer that are described in the literature.

Other issues regarding cancer and RTW covered in the report are safety and health implications for workers; costs to employers, workers and society; wider issues that may affect the worker; work-related and occupational cancer; aspects relevant to SMEs; synergies between and roles of policy areas and (enterprise) actors.

The results presented in the report are based on a systematic approach to locating, identifying and summarising findings from scientific and grey literature in the field of cancer and RTW issues. The systematic method ensures a productive and useful overview of the scientific evidence that goes beyond relying on individual expert opinions. The methods included a comprehensive search strategy to locate relevant references from a number of databases. From those references, significant articles were selected for inclusion in the report using predefined criteria. From the articles that were included, information was extracted and summarised in the report using a predefined data extraction form. To increase the reliability of the process, two researchers independently screened the references and extracted the information from the articles. Differences in results were discussed until consensus was reached.

Safety and health implications of cancer diagnosis and treatment

The literature shows that workers affected by cancer report various effects of cancer and its treatment on their health, including mental, cognitive and physical symptoms. The symptom most frequently reported in the literature is a diminished level of energy, described as fatigue or exhaustion and as emotional strain due to the ongoing battle with cancer. This is consistent across cancer types. Other implications of cancer and its treatment that are reported to have an effect on occupational safety and health are diminished mental health, including depression and anxiety; diminished physical functioning and symptoms including pain; and diminished cognitive capacities, including problems with attention and memory.

The explicit occupational implications that authors reported were diminished work productivity, work ability impairments and decreased functioning at work. This means that, as a result of one or more of these symptoms, workers treated for cancer are likely to have to report sick because their work capacity is diminished and it is no longer possible for them to carry out their usual tasks. These symptoms can occur early in the treatment process or last for years after a diagnosis, which makes them especially problematic. For example, workers with cancer can continue to suffer from fatigue or cognitive problems several years after diagnosis and treatment.

The literature provides a long list of factors that are considered to predict RTW. However, the studies that report these factors are not of sufficient quality to draw strong conclusions on the strength of the effects. Factors that predict a less successful RTW are reported in the literature as:

- socio-demographic factors, such as older age or lower educational level;
- work-related factors, such as high physical work demands, a non-supportive work environment, no flexible working arrangements or no reduced working hours;

- disease-related factors, such as having head/neck, brain, pancreatic, lung or liver cancer, or an advanced disease;
- treatment-related factors, such as having chemotherapy, extensive surgery or endocrine therapy;
- other miscellaneous factors, such as fear of unemployment, no advice from a doctor regarding work or low quality of life.

Relatively little is known about how employers are affected when a worker is diagnosed with cancer.

Costs for workers, employers and society

The return to work of cancer survivors is economically important. If a cancer survivor does not return to work during or after treatment, this entails a financial loss for the worker, the employer and society. Adapting the work environment may enable RTW. This may come with costs for the company and the worker, but, in the end, these may be less than the costs of long-term sick leave.

Little is reported about the costs for workers, employers or society, and what is reported does not indicate consistent results. For individuals, both serious financial difficulties and no effect on annual household income levels have been reported. There were no reports of the costs to companies of workers being diagnosed with cancer. The total economic loss to the European Union due to lost work days as a result of cancer was estimated at EUR 9.5 billion in 2009, but this loss was not entirely related to unsuccessful RTW.

Wider issues that may affect the worker

Wider issues that may affect the worker and that influence successful RTW that are reported in the literature are the meaning of work and motivation to work. Some factors are likely to encourage RTW, such as when work is perceived as a return to normal life or when it is perceived as a marker of being healthy. However, some factors hinder RTW, for example when work is not economically necessary and a person re-evaluates what work means to them as the result of a cancer diagnosis. In this case, workers often decide that RTW is not worthwhile.

Another group of factors that affect successful RTW are the attitudes and behaviours of colleagues and other people involved as experienced by the cancer survivor. Workplace accommodations that have been requested by the worker are appreciated, but unwanted workplace accommodations are experienced as negative. For example, deciding on behalf of the worker, without consulting them, that work tasks have to be changed is not usually appreciated. Negative experiences include feeling stigmatised or labelled as a cancer patient and feeling discriminated against by unfair dismissal. However, unsolicited support for RTW by healthcare professionals is usually appreciated by cancer survivors because they feel that the professionals understand that work issues are important to them.

Work-related and occupational cancer

The development of cancer may be caused by work and the work environment. Occupational cancer can be defined as cancer that is mainly caused by exposure at work, whereas work-related cancer is considered multifactorial, and work exposure plays a smaller role alongside other factors.

There are no studies focusing on RTW of workers with occupational and work-related cancer. This could mean either that this is not a problem that should be looked at separately from other types of cancer or that the problem simply has not been studied. As most occupational cancers have long latency times and occur after working life, it could be that RTW is not a desired outcome. For work-related cancers, the exposure to carcinogens at work may have gone unnoticed and thus RTW issues are not different from those for non-work-related cancers.

Small and medium-sized enterprises

The size of the company seems to have an impact on cancer survivors' opportunities to return to work. In companies with fewer than 250 workers (SMEs), information and resources for RTW strategies or programmes are lacking, and support and education are needed. These problems seem to be found in particular in small enterprises with fewer than 50 workers, and in micro-enterprises with fewer than 10 workers⁵.

It is reported that RTW after cancer seems to be more problematic for the self-employed and those working in small enterprises. This is because being off work for treatment and necessary rest is more difficult in small companies; they have limited access to occupational health services and there is a lack of experience in the management of sickness absence. However, advantages were also seen in the small size of SMEs, which results in a more familial atmosphere. This may create a more supportive environment for workers with cancer in the RTW process. Little has been reported about all this in the literature, though, and the conclusions are not strong because of the small evidence base.

Interventions to enhance and support return to work

For the purposes of the overview of the literature, the term 'intervention' is understood in a broad way, including both very active approaches to support, such as training, and less active approaches, such as providing information by phone, online or in print form.

Only a limited number of studies have evaluated the effect of interventions to help cancer survivors to return to work. Most interventions have been developed for cancer survivors. Some interventions are specifically for employers, human resource professionals, line managers or healthcare professionals. Only a few interventions are available for SMEs and the self-employed affected by cancer. Therefore, the evaluation looked at interventions targeting individual workers, rather than considering organisational interventions such as a RTW plan or workplace interventions with the aim, for instance, of reducing working time or avoiding heavy physical work.

Forms of RTW support include psycho-educational interventions, such as counselling combined with providing information about social security issues, and physical training to increase physical and mental capacity. For these interventions, there was no effect on RTW in evaluation studies. With or without the intervention, the same fairly high numbers of cancer survivors returned to work. However, there were only few studies that properly evaluated these interventions, and it could be that future studies provide new information.

Some studies evaluated medical interventions that aimed to make treatment less burdensome, but these did not affect RTW rates. No studies were identified that had evaluated the effects of interventions to adapt the job or workplace.

Only multidisciplinary interventions that combined vocational counselling with patient counselling and physical training increased RTW rates, albeit only to a small extent. For workers who were not included in the intervention, RTW rates were on average 79 %, and this increased to 87 % with multidisciplinary intervention. This was based on 5 randomised studies with 450 participants and judged to be moderate-quality evidence for the presence of a small beneficial effect of the interventions. The interventions did not have a significant positive or negative effect on quality of life in general.

The grey literature covered a number of interventions relating to the workplace. However, these were only descriptions, without an evaluation of their effectiveness. Interventions were described as workplace accommodations, mostly intended to accommodate fatigue and provide more flexibility in working time or offer a reduction in working time, which might take the form of paid leave for healthcare appointments. Interventions included adjustments to workloads, changes to duties, provision of assistance and changes in personnel.

⁵ EU-OSHA 2016.

A large number of psycho-educational interventions, such as advising cancer survivors by telephone or providing information on a dedicated website, were found to be used in practice, but none of these has been evaluated for its effects on RTW. Available interventions include information and training on cancer and RTW issues, rehabilitation services, guidelines and workplace accommodations.

Interventions providing support to employers have been developed and are used in practice. These interventions aim to support employers by helping them to construct RTW plans for employees with cancer, providing ideas for workplace accommodations to facilitate RTW, advising employers on how to improve communication with affected employees and to provide employers with factual information about diagnosis and treatment of cancer. No information on the effectiveness of these interventions could be found.

In some countries, such as the Netherlands and the United Kingdom, there are also guidelines and policies for healthcare professionals on how to support their patients in RTW. Although these efforts are appreciated by cancer survivors, it is unclear if they affect RTW rates.

Very few interventions and resources were identified that related specifically to unemployed people diagnosed with cancer, self-employed people diagnosed with cancer or SMEs.

From the overview of the literature, several good-practice examples of RTW interventions will be selected to be described in more detail in other tasks forming part of the project. In addition, company case studies will provide an overview of what interventions are used in practice and how they are implemented and experienced in companies. A qualitative study will provide information on the opinions of experts and professionals who are involved with RTW problems in cancer survivors. Together, these activities will allow an assessment of discrepancies and similarities between research, practices in companies and the practices of professionals. Furthermore, they will provide policy options that can be considered by decision-makers aiming to increase and support RTW of workers diagnosed with cancer.

Synergies between policies and actors

Synergies and collaboration between policy areas seem to be important, as it has been noted that developing and implementing efficient and effective interventions to promote RTW requires close collaboration between relevant actors. In the literature, the following key actors are discussed: the cancer survivor, healthcare professionals, employers and professionals in human resource departments, colleagues, professionals in legal rights, employment and social services, trade unions, non-governmental organisations and government. However, no evaluations were found of the possible impact of these collaborations on cancer survivors specifically.

Conclusion

Surviving cancer can limit one's work ability for various reasons. The implications of cancer and its treatment can affect all aspects of human health and well-being, and include physical, mental and cognitive symptoms. These implications can be either short or long term. When returning to work, survivors may face difficulties in balancing work and treatment demands, including negative attitudes or behaviour from their colleagues or their employers. All of this may lead to a reassessment of work and life goals, thus hindering RTW.

Various factors may influence a cancer survivor's ability to work or to resume work. However, it is unclear which of these factors are the most important and should be addressed in policies or best practices. RTW is considered to be predicted by disease-related factors, such as fatigue after treatment; workplace-related factors, such as heavy physical work; and specific type of treatment, such as chemotherapy. Addressing these factors might improve RTW rates and point out workers who are specifically at risk of not returning to work. In general, work accommodations provided by employers and support for RTW from healthcare professionals are appreciated by cancer survivors.

With the rising number of cancer survivors, effective interventions are needed to enable RTW and to reduce the costs to individuals, companies and society at large. However, to date, little is known about

the effectiveness of these interventions, making it difficult to recommend best practices. The only interventions for which there is evidence that RTW is improved when compared with care as usual are multidisciplinary interventions. These interventions include physiotherapy, occupational therapy, speech therapy, vocational rehabilitation and psychology in relation to RTW (i.e. delivery of, for example, education, counselling and training).

The vast number of educational interventions that are used in practice probably do not affect RTW rates. The effects of other available interventions remain unclear, and more evaluation studies are needed to analyse them. Research that specifically examines employers' views and needs as well as the particular issues that SMEs face with regard to RTW is needed.

There is a gap between the interventions that aim to enhance RTW that are described and evaluated in the scientific literature and those that are available in practice. In other words, little can be found in the scientific literature about existing RTW interventions. Most of the information about them in the overview comes from grey literature. Available interventions and resources include information and training on cancer and RTW issues, rehabilitation services, guidelines and workplace accommodations. Most interventions have been developed primarily for cancer survivors; others are aimed at employers and healthcare professionals. Very few interventions are available that are specifically designed for the self-employed or SMEs.

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