



# Assessing health and safety risks in the hospital sector and the role of the social partners in addressing them: the case of musculoskeletal disorders (MSDs) and psychosocial risks and stress at work (PSRS@W)

**Report of the social partners' conference on approaches to the issue of musculoskeletal disorders in the hospital/healthcare sector  
Paris - 25 March 2015**

*Final version (20 January 2016)*



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# Acknowledgements

HOSPEEM and EPSU would like to thank the French HOSPEEM affiliated member FEHAP for its support in organising the conference.

HOSPEEM and EPSU would also like to thank the European Commission for the financial support provided.

*‘Nobody should get hurt when taking care of others’*

Minke WERSÅLL (Swedish Work Environment Authority)

## 1. Introduction

Healthcare is one of the most significant sectors in the EU economy employing directly around one in every ten workers in the EU<sup>1</sup>. The sector, however, faces major challenges that are multi-faceted and complex and that stem from the combined effect of different factors.

One major priority of the joint work programme 2014-2016 of the European Sectoral Social Partners HOSPEEM and EPSU is the promotion of occupational safety and health. Against this backdrop, HOSPEEM and EPSU jointly elaborated a two-year EU project entitled *“Assessing health and safety risks in the hospital sector and the role of the social partners in addressing them: the case of musculoskeletal disorders and psycho-social risks and stress at work”*, for which they received financial support from the European Commission.

The common aim of this project is to identify how actions aimed at preventing and managing these two occupational hazards can contribute to improved health as well as to more attractive retention conditions



within the hospital/healthcare sector and can lead to improved efficiency in the management of healthcare institutions and workplaces by reducing costs linked to loss of productivity, sick leave and occupational diseases. The project also aims to help HOSPEEM and EPSU members assess the impact of musculoskeletal disorders and psychosocial risks and stress at work on the management of healthcare institutions and healthcare personnel and identify effective actions to tackle them. This is based on fact finding and the exchange of existing good practice at hospital level, on tools, on joint social partners’ initiatives as well as on government policies and legislation aimed at preventing or reducing musculoskeletal disorders and psychosocial risks and stress at work.

The activities foreseen under the project, i.e. the organisation of two conferences in Paris and Helsinki, should help EPSU and HOSPEEM and their respective members work towards common views as to the analysis of the risks in hospitals and other health institutions, their relative weight, their incidence on specific groups of health workers or health professions and identify relevant existing measures, good practice examples and

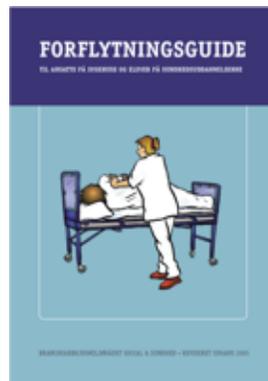
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<sup>1</sup> In 2010 there were around 17.1 million jobs in the healthcare sector which accounted for 8% of all jobs in EU-27. Data from Eurostat (2011) NACE Rev.2 categories 86 & 87.

guidance to address them. Both conferences will contribute to raise awareness amongst employers and workers on the importance of an effective risk assessment and management of these two occupational hazards. Moreover, these events will foster the exchange of information and knowledge as well as mutual learning across European countries.

HOSPEEM and EPSU are committed to contribute to tackle these challenges, in particular in view of the extent to which they affect the health workforce, by making active and effective use of social dialogue at EU level.

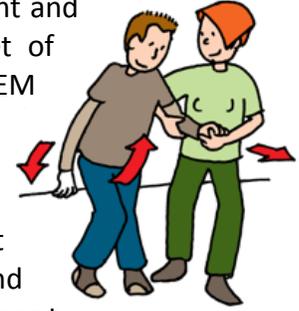
This report of the “social partners’ conference on approaches to the issue of musculoskeletal disorders” held on 25 March 2015 in Paris is one of the expected deliverables of the project. Other deliverables, such as the setting up of a dedicated webpage on both the HOSPEEM and EPSU websites<sup>2</sup> containing European and country specific documents related to MSD prevention and giving access to the complete set of presentations given at the conference are also realised.



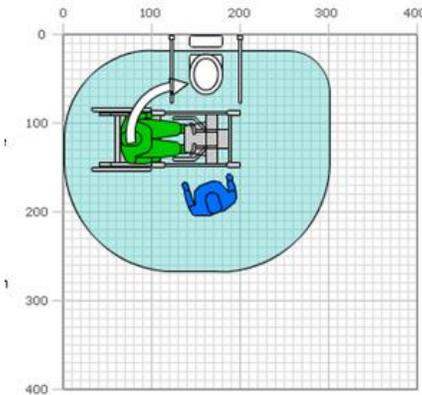
<sup>2</sup> <http://hospeem.org/activities/projects/osh-project-material-and-guidance/>  
<http://www.epsu.org/a/10999>

## 2. The Paris MSD Conference

The conference took place on 25 March 2015 in Paris (co-organised by FEHAP and supported by HOSPEEM) with around 90 participants from 16 EU Member States<sup>3</sup>. The aim of the conference was to provide social partner organisations with a common understanding of the phenomenon of musculoskeletal disorders in the hospital sector and an overall picture of the concrete measures they can take to prevent and manage them. Further information on the event, including a full set of presentations can be found on the dedicated pages of both the HOSPEEM and EPSU websites<sup>4</sup>.



All speakers underlined that successful MSD reduction programmes in hospital care must pay attention to four cornerstones. The first cornerstone is 'clear guidelines'. These can be based on the EU Health and Safety Directive on Manual Handling (90/269/EEC)<sup>5</sup> as a minimal requirement and/or the CEN ISO TR 12296 on manual handling of people in the healthcare sector<sup>6</sup>. In this Technical Report (TR) considerable proof can be found that 'non-lifting', or ergonomic programmes, can be effective in reducing the overload on the nurses musculoskeletal system. For this guidelines are necessary to tell when 'load on the back' changes into 'over load on the back'. A working group of international specialists have been working on this document for a period of more than three years. Its main goals are to improve caregivers' working conditions by decreasing biomechanical overload risk, thus limiting work-related illness and injury, as well as the consequent costs and absenteeism, and to account for patients' care quality, safety, dignity and privacy as regards their needs, including specific personal care and hygiene.



Secondly, (Cornerstone 2) social partners must contribute to the implementation of these guidelines. For example by communicating a straightforward message about safe working, both from the employers' and the workers' point of view. The third cornerstone is about safe working space. Although architects, employers and hospital workers might have conflicting opinions about how hospitals should be designed, still clear guidelines are available about square meters for safe working around the bed, the toilet area, OR, etc.

<sup>3</sup> The full list of participants is presented in Appendix #2

<sup>4</sup> <http://hospeem.org/?p=2970> / <http://www.epsu.org/a/10895>

<sup>5</sup> Council Directive 90/269/EEC of 29 May 1990 on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers. Available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31990L0269>

<sup>6</sup> Summary available at: <http://hospeem.org/wordpress/wp-content/uploads/2015/03/Technical-Report.pdf>

Cornerstone 4 is about (re)educating/(re)training the hospital employees/workers. How do we train health workers to work safer? What is the experience with peer leaders and ErgoCoaches in managing behavioural change? What is the role of the nursing schools? And e-learning?

The agenda<sup>7</sup> of the day was built up around these four Cornerstones. All speakers were asked to cover one of the cornerstones based on their expertise in their country. The speakers were a mixture of representatives from an employer's, employees', research and hospital background. As the number of formal presentations was limited not all Member States were represented 'on stage'. Presentations<sup>8</sup> were given by experts and/or HOSPEEM members or EPSU affiliates from the following countries: Finland, France, Germany, The Netherlands Spain, Sweden, Switzerland and the UK. Eurofound and the European Commission were also represented. Simultaneous interpretation was provided from and into English, French and Spanish.



### The Four Cornerstones:

- # 1: guidelines and regulations.
- # 2: social partners.
- # 3 (re)building ergonomic hospitals
- # 4 (training)

As an important goal of the project in general, and of the Paris conference in particular, is to exchange knowledge and share good practices, voluntary interactive round table sessions were therefore organised during lunch break. Groups arranged according to the mastered languages of participants were asked to answer three questions and report in writing. The results of exchange on five round table sessions can be found in Appendix # 4.

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<sup>7</sup> The agenda is presented in Appendix #1

<sup>8</sup> An abstract of all the presentations can be found in Appendix #3

### 3. Take home messages

Based on the speakers' presentations, the plenary discussions, the concluding remarks of Maryvonne NICOLLE (FSS-CFDT, France) and Marta BRANCA, (ARAN, Italy)<sup>9</sup> and the lunch break round table discussions, the following 'take home messages' can be formulated:

- Demographic and epidemiologic trends indicate that status quo (no action taken) is very likely to contribute to aggravating MSD problems in the future,
- Increasing obesity among the general European population, the increasing age of the (predominantly female) workforce, the increasing average age of patients, the foreseen lack of health workers in the next years underline the need for MSD prevention programmes among healthcare workers,
- The financial crisis must not be used as an excuse not to implement MSD prevention programmes at national or hospital level as they should be considered as a necessary investment leading to cost reduction for employers and society,
- MSD amongst healthcare workers should be seen as related to numerous health issues amongst patients (pressure sores, mobility issues, incontinence, diabetes, obesity, etc.). This gives the opportunity to tackle the MSD issue from different angles,
- As reliable knowledge about how to assess and solve MSD is available it is time to go from word to action,
- For an effective MSD prevention programme all four cornerstones should be addressed in order to gain synergy,
- New guidelines on ergonomics in healthcare are not necessary as they are available in the CEN ISO TR 12296. For training, guidelines and building design, understanding the five Mobility Levels (as mentioned in the CEN TR ISO TR 12296) is essential,



- With the available assessment instruments, available guidelines and available best practices each hospital can develop its own tailor-made MSD prevention programme,
- Social partners are important drivers for all cornerstones. Preventing MSDs is a shared concern and must not be a top down process. Employers have to accompany and support employees but the latter must also be active and actors of their own health. The cooperation of employers and trade unions is fundamental in successfully managing and preventing MSDs,

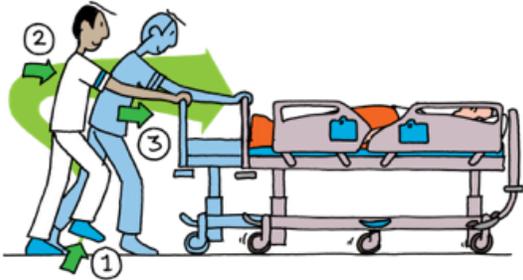
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<sup>9</sup> The concluding remarks of Maryvonne Nicolle and Marta Branca can be found in Appendix #5

- Social partners are one of the four cornerstones but they are also important drivers for the other three,
- Social partners should make the best possible use of the results of the conference and the project in the social dialogue / collective bargaining,
- Ergonomic focus is an indispensable feature of future hospital design. It contributes to coping with future staff shortages in health facilities and enables reductions of operational costs. Joining economical and building requirements from the beginning enables quality-oriented facilities,
- Training to prevent risks related to MSD is an on-going process: it should start in the context of initial professional training/education. Later on tailor-made additional updates and refreshers should be provided,
- Training should not be restricted to lifting, other sources of MSD should also be incorporated (postural load, pushing, pulling, etc.).
- As training is expensive and generally not (cost) effective it should be tailored to the issues of the hospital, ward or individual healthcare worker. Effective new ways of learning, through ErgoCoaches ('préventeur interne') and e-learning, should be discussed and incorporated.
- E-learning must be seen as additional to hands on training. With respect to MSD prevention, e-learning can never replace skill teaching in nursing practice. Both ways of learning should be offered in a 'blended' way.
- As most European countries promote home care (as opposed to institutional care) and as home care has its own typical ergonomic issues, a tailored 'home care approach' should be developed and implemented.



## 4. Summary to move forward



At the Paris MSD conference held on 25 March 2015, concrete actions aimed at successfully preventing and managing musculoskeletal disorders in the hospital/healthcare sector were identified. This first conference contributed to generate more interest in the issue of musculoskeletal disorders, increase knowledge of the risks and raise awareness amongst participants on the importance of an effective risk assessment and prevention within hospitals and healthcare institutions.

Delegates and presenters exchanged views and knowledge about how to assess and solve the issue at a national and institutional level and about how to achieve healthier and safer working conditions in the hospital sector, not least by building on social partner-based initiatives, measures or agreements and on legislation in place, government policies, risk assessment procedures, guidance or other practical tools.

The Paris conference aimed at strengthening the role of the European social partners in the hospital sector with regard to occupational safety and health.

This report and more generally the results of the project will be disseminated at national and EU levels. It will constitute a basis for further discussions on possible joint follow-up activities of HOSPEEM and EPSU and will feed into the future work of the Sectoral Social Dialogue Committee for the Hospital Sector on occupational safety and health related issues.

# Appendix # 1: Agenda, speakers and topics of the conference



## Morning session

08.30 – 09.00

*Registration*

09.00 – 09.15

**Welcome and introduction**

### **Opening speech**

*Yves-Jean DUPUIS, FEHAP Director General*

### **Welcome speech**

*Tjitte ALKEMA, HOSPEEM Secretary General (Chair)*

09-15 – 09.45

**The size:** Musculoskeletal disorders: what is going on? Facts, figures and data about the nature and size of the problem.

### **Size and nature of the phenomenon of musculoskeletal disorders**

*Jean-Michel MILLER, Eurofound*

- 09.45 – 10.15 **The causes:** What are biomechanically the causes of musculoskeletal disorders in the healthcare sector? Facts, examples and figures about lifting, static load and heavy manoeuvring.
- Physical risk factors for musculoskeletal disorders in nursing professions**  
*Sonja FREITAG, German Social Accident Insurance Institution for the Health and Welfare Services*
- 10.15 – 10.45 **The solutions:** How do we solve the issue?
- Musculoskeletal disorders in the nursing profession: how do we solve the problem? What are the cornerstones?**  
*Nico KNIBBE, LOCOmotion Research NL*
- 10.45 – 11.15 *Coffee*
- 11.15 – 11.55 **Cornerstone 1: Regulations and guidelines.** What is the existing regulatory framework at EU and national level? Is the legislation well implemented in the different Member States?
- Ergonomics at the Workplace - An EU Baseline Scenario**  
*Antonio CAMMAROTA, DG EMPL, European Commission*
- Swedish regulatory framework and implementation**  
*Minke WERSÄLL, Swedish Work Environment Authority*
- 11.55 – 12.45 **Cornerstone 2: Social partners.** How can social partners contribute?
- Video presentation of experience from Hospitals of the Mont-Blanc region (France)**  
*Introductory remarks from Cyrille DUCH, FSS-CFDT*
- The Backpack**  
*Kim SUNLEY, Royal College of Nursing & James TRACEY, Leeds Teaching Hospitals NHS Trust*

**Good Work Environment and Good Performance Go Hand in Hand**

*Ing-Marie LARSSON & Solveig TORENSJÖ, Karlskoga hospital (Sweden)*

12.45 – 14.30

*Lunch*

A 45 minute interactive roundtable session will take place during lunch break, on a voluntary basis.

**Afternoon session**

14.30 – 15.15

**Cornerstone 3: (Re)building ergonomic hospitals.** What should ergonomic hospitals look like?

**Cost-Effectiveness of Ergonomic Hospital Design: Methods and strategies to reduce operational costs of hospitals by introducing ergonomic concepts to enable better work conditions and higher work efficiency**

*Tom GUTHKNECHT, Lausanne Health & Hospitality group*

**Building ergonomic hospitals. What should ergonomic hospitals look like?**

*Leena TAMMINEN-PETER, Ergosolutions BC Oy Ab*

**Assessment of work-related risks: a necessary ergonomic conception**

*Jean-Pierre ZANA, French National Institute for Research and Safety (INRS)*

15.15 – 15.45

**Cornerstone 4: Training.** How do we train health workers to work safer?

**Preventing musculoskeletal disorders and training: FAQs**

*Diana ROBLA, Galician Health Service*

**Preventing musculoskeletal disorders: from training to internal preventers: the example of the Institut Robert Merle d'Aubigné**

*Hélène ANTONINI-CASTERA, Institut Robert Merle d'Aubigné*

15.45 – 16.30

**Plenary discussion & Closing remarks**

*Moderator: Nico KNIBBE*

Preliminary statements:

*Maryvonne NICOLLE, FSS-CFDT*

*Marta BRANCA, ARAN*

*Antonio CAMMAROTA, DG EMPL, European Commission*



## Appendix # 2: Delegates, represented countries and their organisations

First name	Last name	Country	Organisation
Olga	Alehno	Belarus	Belorussian Trade Union of Healthcare Workers
Tjitte	Alkema	Netherlands	NVZ - Nederlandse Vereniging van Ziekenhuizen / HOSPEEM Secretariat
Horacio	Alves	France	Ergoryhme
Sylvie	Amzaleg	France	FEHAP - Fédération des Etablissements Hospitaliers et d'Aide à la Personne Privés Non Lucratifs
Hélène	Antonini	France	FEHAP - Fédération des Etablissements Hospitaliers et d'Aide à la Personne Privés Non Lucratifs / Institut Robert Merle d'Aubigné
Zoe	Antoniou	Cyprus	PASYDY (PANCYPRIAN PUBLIC EMPLOYEES TRADE UNION)
Antronikos	Antronikou	Cyprus	PASYDY ( PANCYPRIAN PUBLIC EMPLOYEES TRADE UNION
Damien	Aufort	France	CFDT Santé Sociaux
Sari	Bäcklund-Kajanmaa	Finland	Trade Union for the Public and Welfare sectors JHL
Céline	Barlet	Belgium	HOSPEEM Secretariat
George	Barron	United Kingdom	UNISON
Herbert	Beck	Germany	Ver.di
Nina	Bergman	Sweden	VARDFORBUNDET
Valérie	Bincteux	France	APHP
Helen	Bogan	United Kingdom	NHS
Hans-Joachim	Bonatz	Germany	Ver.di
Mounia	Boudhan	Belgium	EPSU Secretariat
Marta	Branca	Italy	ARAN - Agenzia per la Rappresentanza Negoziabile delle Pubbliche Amministrazioni
Carmen	Bravo Sueskun	Spain	Comisiones obreras
Antonio	Cammarota	Belgium	DG EMPL, European Commission
Ned	Carter	Sweden	SALAR - The Swedish Association of Local Authorities and Regions
Guy	Crijns	Belgium	CSC Services Publics
Tore	Dahlstrom	Norway	Norwegian Nurses Organisation
Marianne	De Troyer	Belgium	European Trade Union Institute (ETUI)
Sylvie	Dejesus	France	FACT (franche-Comté Amélioration des Conditions de Travail) / Réseau Anact-Aract

Muriel	Di Martinelli	Belgium	CGSP-ACOD ALR-LRB Bruxelles
Liza	di Paolo-Sandberg	Sweden	Swedish Municipal Worker's Union
Youssef	Ghennam	France	Union des Cadres CFDT
Jeanette	Grenfors	Sweden	SALAR - The Swedish Association of Local Authorities and Regions
Tom	Guthknecht	Switzerland	ETH Zurich / Lausanne Health and Hospitality Group
Tuula	Haavasoja	Finland	Trade Union for the Public and Welfare sectors JHL
Signe	Hananger	Norway	FAGFORBUNDET (NUMGE)
Bjorn	Henriksen	Norway	SPEKTER
Marek	Hintsches	Germany	Ver.di
Pamela	Ilves	Estonia	Estonian Hospital Association
Rudy	Janssens	Belgium	CGSP-ACOD ALR-LRB Bruxelles
Margaretha	Johansson	Sweden	Swedish Municipal Worker's Union
Jevgenijs	Kalejs	Latvia	Latvian Hospital Association
Johanna	Karlström	Finland	CLAE - Commission of Local Authority Employers
Nico	Knibbe	Netherlands	LOCOMotion Research NL
Anna	Kukka	Finland	Tehy
Rudy	Larsen	Denmark	FOA - Fag og Arbejde
Ing-Marie	Larsson	Sweden	Karlskoga hospital
Kate	Ling	United Kingdom	NHS Europe
Sophie	Mabille	France	CFDT Santé Sociaux
Annica	Magnusson	Sweden	VARDFORBUNDET
Anna	Margaryan	Armenia	Branch Republican trade union organizations of health workers of Armenia
Norah	Mason	Ireland	HSE – Health Service Executive
Mathias	Maucher	Belgium	EPSU Secretariat
Jean-Michel	Miller	Ireland	Eurofound

Pilar	Navarro Barrios	Spain	FSP-UGT
Cécilia	Nesa	France	Ergorythme
Ulrike	Neuhauser	Austria	The Austrian Hospital and Health Services Platform
Maryvonne	Nicolle	France	FSS-CFDT
Agnès	Ninni	France	CFDT Santé Sociaux
Roz	Norman	United Kingdom	UNISON
Louise	O'Donnell	Ireland	Impact
Kaija	Ojanperä	Finland	Tehy
Nathalie	Pain	France	CFDT Santé Sociaux
Vladimir	Pavicevic	Montenegro	Trade Union of Health of Montenegro
Olaf	Peek	Netherlands	NVZ - Nederlandse Vereniging van Ziekenhuizen
Anita	Rabben Asbjørnsen	Norway	Norwegian Nurses Organisation
Jane Marianne	Ravn	Denmark	Danish Regions
Diana	Robla Santos	Spain	Galician Health Service / COMPLEJO HOSPITALARIO UNIVERSITARIO A CORUÑA - SERGAS
Sabine	Scheer	Netherlands	NVZ - Nederlandse Vereniging van Ziekenhuizen
Marianne	Schulz	Denmark	Danish Nurses' Organisation
Liz	Silke	Sweden	Swedish Municipal Worker's Union
John	Skewes	United Kingdom	Royal College of Midwives
Emilie	Sourdoire	Belgium	HOSPEEM Secretariat
Margret	Steffen	Germany	Ver.di
Kim	Sunley	United Kingdom	Royal College of Nursing
Leena	Tamminen-Peter	Finland	Ergosolutions BC Oy Ab
Monica	Teuns	Netherlands	NFU - The Dutch Federation of University Medical Centers
Laetitia	Tibourtine	France	FEHAP - Fédération des Etablissements Hospitaliers et d'Aide à la Personne Privés Non Lucratifs
Solveig	Torensjö	Sweden	Karlskoga hospital
James	Tracey	United Kingdom	Leeds Teaching Hospitals NHS Trust
Raymond	Turøy	Norway	FAGFORBUNDET (NUMGE)
Visitacion	Vaquero Mateos	Spain	FSP-UGT

Olga	Ville	France	FEHAP - Fédération des Etablissements Hospitaliers et d'Aide à la Personne Privés Non Lucratifs
Minke	Wersäll	Sweden	Swedish Work Environment Authority
Jean-Pierre	Zana	France	National Institute for Research and Security (INRS)
Slava	Zlatanova	Bulgaria	Federation of Trade Unions - Health Services - CITUB

## Appendix # 3: Abstracts of the presentations

### **MSD in the nursing profession: how do we solve the problem? What are the cornerstones?**

*Nico KNIBBE, LOCOmotion Research NL*

Occupational back pain among nurses still leads to high costs for healthcare facilities and personal suffering for nurses. There is considerable proof that 'non-lifting', or ergonomic programmes can be effective in reducing the overload on the nurses musculoskeletal system. For this guidelines are necessary to tell when 'load on the back' changes into 'over load' on the back. EU Legislation with respect to patient handling – EU Health and Safety Directive on Manual Handling (90/269/EEC) for patient handling – is a good step in right direction. More recently in 2012 the ISO Technical Report (12296) was published, this TR was endorsed by CEN in July 2013. A working group of international specialists have been working on this document for a period of more than 3 years. Its main goals are to improve caregivers' working conditions by decreasing biomechanical overload risk, thus limiting work-related illness and injury, as well as the consequent costs and absenteeism, and to account for patients' care quality, safety, dignity and privacy as regards their needs, including specific personal care and hygiene. Guidelines and assessments instruments mentioned in this CEN ISO TR 12296 are implemented in The Netherlands by means of so-called covenants. In each healthcare sector agreements supported by signed commitment by social partners and the government led to the development of guidelines for practice and considerable support for the implementation process.

Basically successful ergonomic programmes in nursing profession must pay attention to four cornerstones. First of all clear guidelines are required. These can be based on the EU Health and Safety Directive on Manual Handling (90/269/EEC) and / or the CEN ISO TR 12296. Secondly (Cornerstone 2) social partners must contribute to the implementation of these guidelines. For example by communicating a straightforward message about safe working, both from the employers and the workers point of view. The third cornerstone is about safe working space. Architects, employers and hospital workers might have conflicting opinions about how hospitals should be designed, still clear guidelines are available about square meters required for safe working around the bed, the toilet area, OR, etc. Cornerstone 4 is about (re)educating the hospital employees. What is the best way to train our nurses? What is the experience with peer leaders and ErgoCoaches in managing behavioural change? What is the role of the nursing schools? And e-learning?

In this presentation all four Cornerstones will be addressed, using examples from different EU countries. Also results of the Dutch Covenants approach will be presented.

## **Ergonomics at the Workplace - An EU Baseline Scenario**

*Antonio CAMMAROTA, DG EMPL, European Commission*

The lecture will outline the current EU baseline scenario regarding ergonomics at the workplace. It will highlight current trends, size and extent of the problem, focussing on prevalence rates of work-related musculoskeletal disorders, their impact on business and society, and the interventions developed over the last few years at both European and national levels to tackle them. Against this baseline scenario, the lecture will also examine the potential impact of interrelated factors which are likely to determine future trends in the development of these problems. These trends suggest that status quo (no action taken) is very likely to contribute to aggravating problems in the future. Therefore, further initiatives need to be taken to reduce the societal and financial costs of work-related ergonomic conditions.

## **Swedish regulatory framework and implementation**

*Minke WERSÄLL, Swedish Work Environment Authority*

I will briefly present the Swedish regulatory framework and the implementation of EU legislation, give an introduction to the Swedish provisions and then I'll guide you through recent implementation by the Swedish Work Environment Authority. You are familiar with the directive, it is mainly focused on prevention of back injury: Council Directive 90/269/EEC of 29 May 1990 on the minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers (fourth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC). In Sweden the Work Environment Act is clarified by provisions. My focus will be the provisions on physical ergonomics. The purpose of these provisions is that work and tasks should be arranged and designed so that the risks of hazardous or unnecessarily tiring loads are prevented. Definitions are given and the need of assessment of risks of WRMSD at work are described. The next question to highlight is "How do we implement the regulations?" Our experiences and lessons learned while working in an assignment we got from the Swedish government 2011 about women's health and work are worth sharing with you, ergonomics was a significant part of it. A brief description of the assignment will follow, why we got it and how it was organised will follow.

I will speak about inspections which focused physical ergonomics in patient transfer carried out in 2013 and 14 and the aim of the inspections project was to increase knowledge of the risks of work related musculoskeletal disorders in healthcare and social care. We wanted to contribute to advancing knowledge of how these can be detected and prevented.

How risk assessment is performed and which methods were used is the next topic. The brochure "Lighten the load during patient transfer" was used as information material

and methods are presented I ISO Technical standard 12296 from 2012. The brochure is (or will soon be) available in English on our website [www.av.se](http://www.av.se)

How did we train the inspectors for the project? Information to the employers and the safety delegates, and how we performed the supervision will be described. Something will be mentioned about the most common demands and how we involved the social partners in a discussion about knowledge regarding ergonomics and safe performing of patient transfers. Good practice, but also challenges were encountered.

### **Video presentation of experience from Hospitals of the Mont-Blanc region (France)**

This video is a presentation of the methodology used at the Hospitals of the Mont-Blanc region to improve occupational health and safety. The focus is on prevention and reduction of musculoskeletal disorders.

The video consists of two parts: the first one deals with the description of the action made by the local branch of the CFDT. There are three interventions (Agnès, Sophie and Damien). Agnès will talk about the background and explain that the role of the Occupational Health and Safety Committee is to reduce occupational risks. Then, Sophie will tackle the primary prevention with the MSD as the center of their concerns. She will describe their multi-step approach – the goal is to make concrete improvements and to permit better quality of working life. Finally Damien will present a concrete example of corrective action carried out with respect to hospital laundry to limit the risk of musculoskeletal disorders.

The second part of the video covers two interviews – one interview of Mr. Labbé, assistant director of the Hospitals of the Mont-Blanc region and Chairman of the Occupational Health and Safety Committee and a second interview of Mr. Massard, director of the Hospitals of the Mont-Blanc region.

### **Health, Safety and Wellbeing Partnership Group “Back-Pack”**

*Kim SUNLEY, Royal College of Nursing & James TRACEY, Leeds Teaching Hospitals NHS Trust*

The Chairs from the Health, Safety and Wellbeing Partnership Group, which is a sub-group of the United Kingdom National Health Service's (NHS) Staff Council, will give a presentation on their work past and present, focussing specifically on the "Backpack". The "Backpack" is a 6-part guide on how to support employees who are at risk of sustaining musculoskeletal injury at work, how to prevent the injury occurring through risk assessment and what managers, union representatives and healthcare employees can all do to reduce the risk. Like all of the work produced, the "Backpack" was a jointly written by union and management representatives of the group and communicated through the support supplied by NHS Employers organisation.

## **Good Work Environment and Good Performance Go Hand in Hand**

*Ing-Marie LARSSON & Solveig TORENSJÖ Karlskoga hospital (Sweden)*

In the beginning of 1990 we observed that a lot of female employees at Karlskoga Hospital had a lot of reported occupational accidents/diseases during patient transfer. The objective at the beginning of this project was to decrease the number of reported working accidents by learning how to move and handle our patient in a careful way and in a safe way for our employees. From the beginning the opportunity was only focused on ergonomic matters, but during the time the project was expanded to consist of a comprehensive view of the individual and the working environment. The opportunity nowadays is to reach our goals for patient safety and working environment and this opportunity involve all our patients and all staff.

A cornerstone of the concept found success, is that it is carried out in collaboration with management and the union.

## **Cost-Effectiveness of Ergonomic Hospital Design: Methods and strategies to reduce operational costs of hospitals by introducing ergonomic concepts to enable better work conditions and higher work efficiency**

*Tom GUTHKNECHT, Lausanne Health & Hospitality group*

### **Introduction**

- Ergonomic work flow requirements are neglected in today's hospital design.
- Health facility design should contribute to operational cost reductions by providing more efficient and more ergonomic work conditions.

### **Methods and Approach**

- Unnecessary work and unergonomic, dangerous work procedures are detected by Grey Performance Analysis.
- In a combined approach dangerous work sequences can be replaced and work efficiency increased at the same time.
- While work efficiency is improved, definite quality standards must be introduced and monitored at the same time.
- The available additional so called "alternatively usable time for care" is partly used to increase quality care time with patients and partly for cost reductions.

### **Results and Conclusions**

- Ergonomic focus is an indispensable feature of future hospital design.
- Ergonomic design contributes to coping with future staff shortage in health facilities and enables reductions of operational costs.
- Joining economical and building requirements from the beginning enables quality-oriented facilities.

## **Building ergonomic hospitals - What should ergonomic hospitals look like?**

*Leena TAMMINEN-PETER, PhD, Ergosolutions BC Oy Ab*

The basic principles for hospital designs are: design for all, usability and adaptability. Adaptability is very important, because the most common reason for space problems is that the original facilities were not built for the patients presently hospitalised. Good quality of care must be taken into consideration already during the planning phase. Adequate care is to be based on patients' needs, privacy, cosiness and patients' and workers' safety.

A model room concept, where the patient room is built with all the technologies in size 1:1, helps to detect possible problems in design. Lacks of space in patient rooms and toilets as well as heavy burdens of both patients and laundry are the most common problems found during risks assessments of healthcare facilities. International recommendations of needed space for the hospital bed and toilet/shower facilities and solutions how to handle heavy loads will be provided.

Important source of information is CEN ISO TR 12296:2012 (Ergonomics - Manual handling of people in the healthcare sector <http://www.iso.org>.) It gives guidance on analysing and identifying deficiencies in various different circumstances in which patients may be handled.

Quality of care and safe working practices can be achieved by the ergonomic surrounding, right usage of mechanical aids and safe working techniques. For this reason the standardised national Ergonomic Patient Handling Card® -education scheme has been introduced in Finland

[http://sotergo.fi/files/240/NES2011\\_Tamminen\\_peter.pdf](http://sotergo.fi/files/240/NES2011_Tamminen_peter.pdf))

## **Risks assessment at work: the obligatory of an ergonomic design**

*Jean-Pierre ZANA, French National Institute for Research and Safety (INRS)*

The design of new care units, the establishments of new organisations is often done without prior risk analysis as recommended by the standards. A fundamental principle should be required in France, there are no ready-made solutions. Thus, applying solutions that have worked elsewhere without prior risk analysis and expectations of employees without taking into account the probable care strategies developments, ends often in failure: unused material because evil adapted, moved risk, additional costs to correct the situation afterwards.

The proposed approach is based on two methods and recommendations of the technical report ISO TR 12296. It has been selected the MAPO method developed by Italian teams EPM (Ergonomics of posture and movement). It is a method for analysing the condition for carrying out manual handling of patients, designed for units supervisors. The second method is the adaptation of the physical load analysis work method developed by INRS, the health and social sector that allows the involvement of caregivers through their feelings.

Key to the prevention is found in the implementation of risk assessment, by stakeholders of healthcare structures, before any new unit design or work organisation. Training in ergonomics referents applied for the supervision and training of caregivers in the prevention of risks associated with physical activity are the two complementary training modules that frame the proposed approach.

### **Preventing musculoskeletal disorders and training: FAQs**

*Diana ROBLA, Galician Health Service*

Musculoskeletal disorders are one of the main risks in health, and training is one of the keys to achieve a safer working practice and reduce the physical exertion that is causing injuries. So training is an on-going process that it should begin at caregiver schools and review or refresher coaching is required in the workplace.

But training is usually expensive and not always the expected results are achieved. It is for this reason that if you want to get the maximum success of these actions is necessary to apply a systemic approach. Training has to be integrated into a strategy to manage this type of risk at all organisation levels, it should be tailored to the problems of the institution and a periodical assessment of education and training is always necessary. This will preserve workers health and of course promote patient safety and better quality care.

### **Preventing musculoskeletal disorders: from training to internal preventers: the example of the Institut Robert Merle d'Aubigné**

*Hélène ANTONINI-CASTERA, Institut Robert Merle d'Aubigné*

- Assessment of musculoskeletal disorders risks according to the public:
  - Musculoskeletal disorders in the hospital sector
  - Specificity and paradox of prevention of musculoskeletal disorders in a rehabilitation centre
- State of play:
  - Level of risk of musculoskeletal disorders at the Institut Robert Merle d'Aubigné
  - Measures implemented:
    - Training
    - Handling tools
    - Inadequacy of these measures
- Project: creation of internal preventers

# Appendix # 4: Reports of the round table discussions

## Nordic table (Sweden, Norway and Denmark):

### **1) What has been done in the Nordic countries by social partners in the field of musculoskeletal disorders and what is functioning?**

All the Nordic countries realized that they had reasonable comparable and good agreements on respective national level. Agreements talk about systematic work for the improvement of working environment and are often accompanied with information tools.

More in detail, Sweden has a national cooperation agreement on working environment. Also the Swedish Working Environmental Authority is working with these issues according to the presentation made by Minke Wersall. At the hospital level in Sweden a good practice is presented by Karlsgora Hospital. An example of the link between the national and hospital level is that on recommendation from SALAR, the Swedish Environment Authority visited Karlsgora Hospital, regarding preventive work against infections, which is now spread over the country as a best practice.

Denmark has an agreement between 11 branches with recommendations. Please visit <http://www.foa.dk/Forbund/Temaer/A-l/ArbejdsmiljoeBeregner> for more details.

In Norway, the Work Environmental Act regulates a systematic approach for improving working environment and delegates the undertaking to the social partners.

### **2) What more could be done for the prevention and reduction of MSD?**

Despite legal action, recommendations and helpful tools on national level, work has to be implemented on the local level. That's the place where follow-up, evaluation and monitoring must work and there is room for improvement in all Nordic countries. Factors like stress, excessive workload and staff shortages due to austerity measures influence the possibilities to keep up and develop work environment.

In addition it is very important to share good, but also less good, examples. The challenge is to go from word to action, to implement the appropriate, necessary measures, and to continuously adapt to a changing society with older, more ill

people with multiple needs for care. To achieve this, it is important to work with well-educated personnel and secure continuous development of competencies in moving and handling (also related to patient safety).

### **3) What support would social partners need in making changes possible?**

Support from the political level, the state, competent authorities in a national context and support from the European Commission.

## **Belgium, Bulgarian and Spanish table (trade unions):**

Our working group decided to work on the third question “What support would social partners need in making this possible?”. It was not possible to discuss all the questions due to the short time frame.

N.B.: Our working group consisted exclusively of representatives of Belgian, Bulgarian and Spanish trade unions. Therefore we could not confront our reflections with employers’ representatives.

The group’s approaches focused on the following points:

- Directives and particularly the directive “Manual handling of loads” (90/269/EEC of 29 May 1990) consist only of minimal requirements. They should rather include maximal requirements, in particular considering the current context in which the retirement age is increased. For this reason it is necessary to develop sustainable working conditions throughout the whole working career.
- Obligation to train health personnel in a systematic manner on the manual handling of loads, with a system with fines based on the “polluter-pays principle/costs-by-cause principle” for the employers who do not comply with this obligation, in other words then to apply the system of penalty payments.
- It is necessary to train students who choose to work in the health sector (nurses, nursing auxiliaries, stretcher-bearers, etc.). This is related to the fact that the Dutch project consultant (Nico Knibbe) noted that 80 % of nursing students already had backache problems, lower back pain.
- The manual handling of loads directive should be updated and take into account anthropometric data of the current population (i.e. that there are now more obese patients, overweight patients and patients with a large body mass)

- To oblige MS to implement European directives.
- Moreover we should also ensure that the legislation is implemented in all institutions: assess risks, identify risks and take preventive measures to reduce them, to remove them at the source; inform/consult/train workers on risks that we cannot remove completely and re-assess these risks regularly (in particular, the “moving around” of patients)
- And finally it is also important to note that the impact of the economic crisis and arguments such as the decrease of health budgets in each country should not be a barrier to policies of prevention aimed at protecting health workers and having both what is needed as to human and material resources. It doesn't seem to be a wise approach to have recourse to penalties which established rules in order to solve a problem on working conditions where the prevention is absolutely primordial. It is also important to note that in a context of the economic crisis particularly, prevention policies should be considered as an investment, because it is also an important resource optimisation even though its main purpose is to protect the health of workers.

However, we should not forget that the context/current working conditions does not promote “good gestures / good postures” in order to lift a patient because nurses and nursing staff is subjected to an intensification of work due to the fact that absent colleagues are not replaced and also linked to the fact that it is sometimes necessary to operate in emergency situations without having the time to prepare the intervention of the moving of a patient in a structured way.

It was also said that the development of the Dutch formula style "ErgoCoach" should not shift the responsibility to the worker in case of problems and shift the responsibility away from the employer. It seems that in the case of the directive on the prevention of injuries with medical sharps, a wrong conceptualisation of the employers' responsibility has been observed.

The concepts of Dutch "ErgoCoach" (Dutch speaker/Nico Knibbe), "internal prevention specialist" (French speaker/Jean-Pierre Zana), "MSD's trainers" (Belgium/Guy Crijns) designate workers trained on MSD and supposed to take action with their colleagues. The role of these professionals (with special training) in the institutions should be specified (assignments, responsibilities, etc.).

## English speaking table:

The discussion focused mainly on question 2; that is what additional initiatives social partners could take to address MSD in the hospital sector.

- Promote more and continuous training in the workplace. The workforce is getting older and the same goes for their training in some hospitals.
- Promote having somebody responsible for risk assessment at the work place. There should be some kind of experts at the work place who are able to spread and be updated on the newest knowledge with regard to prevention of MSDs and handling of issues related to it. Ergo-coaches are a good example of such a function that could be promoted.
- Clarify that assessment of the function of the individual patient is understood as something different than the legal risk assessment and that both aspects are equally important. This relates to having clear and common understandings of definitions.
- Promote the importance to look at all groups that are involved in patient care in the hospital sector; that is the target group and that it includes both healthcare assistants, nurses etc.
- Promote that working career discussions are taken in a long term perspective that also includes the possible risk of MSDs. It is, thus, important to promote a holistic view on a sustainable work-life. This also leads to promoting the questions of well being and health as something that is of common interest for both employers and employees.
- And finally, all this leads to a possible initiative on making common guidelines on issues that are important to take into account with regard to MSDs.

With regard to what support social partners would need to make it possible, financial support was the main issue mentioned.

## French speaking table:

*N.B.: at this table there was no participant from the trade union side except for the facilitator and rapporteur.*

### **1) What has been done in France by social partners in the field of musculoskeletal disorders and what is functioning?**

In France a number of branch agreements have been negotiated (*i.e. contrats d'amélioration de la qualité de vie au travail*). The financing is given from the

public purse, e.g. the Regional Health Agencies can give financial support for the modernisation of infrastructures or health devices.

Main actors in the field of musculoskeletal disorders are public or semi-public institutions such as the French National Authority for Health (*Haute Autorité de Santé*), the National and Regional Health Insurance Funds (CNAM + CRAM), the *Institut national de recherche et de sécurité pour la prévention des accidents du travail et des maladies professionnelles* (INRS) [in FR: <http://www.inrs.fr/>; in EN: <http://en.inrs.fr/>] and the National and Regional Agencies for the Improvement of Working Conditions/*Agence Nationale, et Agences Régionales pour l'Amélioration des Conditions de Travail* (ANACT + ARACT).

The social partners are mandatory stakeholders in the paritarian institutions dealing with OSH such as the ANACT and insofar (can) influence and “validate” their work. Moreover, the National Health Insurance Fund (CNAM) is strongly influenced by social partners.

What can be the role of social partners to help reducing and preventing MSD?

- Elaboration of appropriate tools
- Negotiation of agreements to determine the best tools to use on the ground. This is done by the committees for hygiene, work place security and working conditions/*comité d'hygiène, de sécurité et des conditions de travail* (CHSCT)

According to Jean-Pierre Zana, one major problem is that at the workplace level things are often not pushed/done to the end, i.e. possible agreements are eventually not being concluded due to the reluctance of trade unions or the workers’ representatives in the CHSCT. There is a lack of concrete tools on the ground. Many agreements signed concern the purchase of medical material and devices, training and arduous working conditions, but only few concern measures to prevent and reduce MSD.

From an employer’s perspective, there are deficits with regard to the assessment of the risks in a structural and regular manner. This is linked in particular to a lack of technical knowledge and competences to run risk assessments.

What would also need to be improved is the inclusion of modules on a “culture of prevention” in the professional training/studies of nurses.

## **2) What more could be done for the prevention and reduction of MSD?**

According to Jean-Pierre Zana, social partners in France don’t put enough emphasis on the issue of risk assessment whereas it would allow making progress on these topics.

There are rather efforts to put in place an additional payment for risky activities/work situations/work environments instead of putting more time and energy into initiatives.

Even when the diagnoses are being made on how to reduce or prevent MSD, employers perceive reluctance on the trade union side to sign agreements to address the problems.

Employers consider that health professionals such as nurses should take initiatives themselves in OSH rather than always waiting for indications from the management. Preventing musculoskeletal disorders is a shared concern and must not be a top-down process. Employers have to accompany and support employees but the latter must also be active and actors of their own health.

### **3) What support would social partners need in making changes possible?**

It was felt among the employers that there is no need for additional laws and regulations containing constraints and sanctions as it already exists.

According to Jean-Pierre Zana, a field perspective is essential when addressing the issue of musculoskeletal disorders. Moreover, risk assessment is a priority in the field of musculoskeletal disorders.

An agreement on MSD has been signed for the sector of handicapped people could possibly also be used (at least as source of inspiration) in the hospital sector.

## German speaking table:

Question 1: "... what have social partners already done and what are they involved in": am afraid we did not specifically answer this question, and I dare say this should become 'obvious' from examples given for the "resources" part of the project

For question 2 "additional initiatives" we mentioned 'joint projects' as in our view being most relevant

Question 3 is the one that got our discussion going from the start, but we decided to rephrase it: what basis do we have in our respective countries? - our

own assessment is, as a result of this discussion, that when looking at all European Member States it seems that Germany and Austria are most advanced in OSH, for the following reasons:

- the cornerstones for OSH are institutionalised in Germany and Austria: there are two pillars, so to speak, the accident insurance and occupational health and safety regulated by law,
- [Austrian see link below] Occupational Health and Safety Act (Arbeitnehmerschutzgesetz): regulates the employee protection both at federal level (Labour Inspectorates) and at company level,
- internal bodies at company level are regulated by law, ie the role of the occupational health and safety specialist and the role of the employer,
- these occupational health and safety specialists are independent in their reporting and evaluation

However, there is also 'room for improvement': it was felt by the group that occupational safety and health and workplace health promotion are generally considered as "disturbing" or "troublesome" ("störend").

What would we like to arrive at?

- an overall strategy/master plan for occupational health and safety and workplace health promotion at company level ,
- a positive attitude and positive exposure to these issues from employers/executive managers, and
- respective training of internal executive managers.

Links:

Overview: [https://www.eval.at/docs/default-source/basiswissen-arbeitnehmerschutz/Basiswissen\\_Arbeitnehmerschutz.pdf?sfvrsn=0](https://www.eval.at/docs/default-source/basiswissen-arbeitnehmerschutz/Basiswissen_Arbeitnehmerschutz.pdf?sfvrsn=0)

Dictionary: <http://www.linguee.de/deutsch-englisch/uebersetzung/arbeitnehmerschutzgesetz.html>

# Appendix # 5: Concluding remarks of Maryvonne Nicolle and Marta Branca

## Maryvonne NICOLLE, FSS-CFDT, France (EPSU)

Ladies and Gentlemen,

We have therefore come to the end of this first Conference on musculoskeletal disorders. This is a first milestone in the priorities of our Work Plan 2014-2016, which we defined and adopted together at the Sectoral Social Dialogue Committee.

This Conference is one of several actions, such as that already carried out by the Occupational Health and Safety Committee, namely our Joint Statement of HOSPEEM and EPSU of December 2013 on the new EU Occupational Safety and Health Policy Framework 2014-2020.

The European strategy identifies three key challenges:

1. To improve the prevention of work-related diseases,
2. To take account of the ageing of the EU's workforce,
3. To improve implementation of existing health and safety rules.

To recap, at European level, MSD are mentioned as one of the two most prevalent risks and the human and economic costs associated with these diseases are enormous.

I wish to raise a few important points made in this statement, which are entirely in keeping with the main theme of today.

I quote: *“An improved coordinated strategic framework at EU level is indeed needed to contribute to tackle key challenges faced by the healthcare sector, made more difficult by the pressure on healthcare budgets resulting from the economic crisis. Another element here is the increase in the number of older health workers in combination with the increasing demand for healthcare services.”*

*“EPSU and HOSPEEM share the opinion that OSH measures and safer work places will support workers to have more healthy and productive years of their professional careers or careers with reduced risk of suffering impairment to their health and well-being.”*

Concerning the role of the Social Dialogue and the social partners in the field of health and safety at work, we declared, and I quote:

*“HOSPEEM and EPSU are firmly convinced that a model involving social partners in the formulation and implementation of OSH policies and supporting the actions and agreements in the health and safety field arisen from their own initiative is a winning model.”*

Therefore let us play a full role and actually put our words in this statement into practice. This first Conference will assist us to do so. There are a large number of lessons to be learnt from this. We must get to grips with them for the continuation of our work in our Social Dialogue Committee.

Lessons on the perception of the existing regulatory framework, on compliance with it and on its implementation in the various States, which is unfortunately still lacking in some of them.

More concrete lessons, as this is what constitutes the bread and butter of professionals, the input on the practices described by the United Kingdom, Sweden and France.

Or again the approach, the ergonomic resources which can contribute to reducing risks of musculoskeletal disorders.

And, finally, the question of the instruments for staff training, as well as the awareness-raising campaign materials.

In various speeches, we also received confirmation of a finding which we have raised on various occasions, namely that of the transformation of the workplace, a trend which has been gathering pace throughout Europe and which is no longer confined purely to healthcare establishments. This refers to homecare assistance. We shall have to take it into account in our future work.

To ensure effective prevention of MSD, and more broadly, to work towards a reduction in exposure to health risks, there is a need in healthcare establishments to arrive at the logic of prevention taking priority over that of compensation at European, State and local levels.

Whether it is at the heart of strategic investment choices, in the fields of training, organisation of work, the number of staff or purchases of equipment.

Succeeding in demonstrating that in the long term it is an advantage which is both economic and conducive to better quality of services, well-being and quality of life at work for professionals and guarantees safety for the patients who use them.

We could possibly envisage the possibilities of future work with the European Agency for Safety and Health at Work (EU-OSHA) on the subject of the cost-benefit analysis of a policy of investment in prevention.

The final lesson from this Conference which I would like to highlight is the key role of the Social Dialogue, the backbone for the success and effectiveness of any action.

Of the necessary participation of employees who should be involved at all stages of the process.

Of introducing times and places for exchanges between the employers and the professionals.

Of using the means already available in this field of working conditions, such as the occupational health and safety committees.

That together, employers and professionals can have a joint perception of this problem and make a shared diagnosis. This stage is essential so that then, together, they define levers for action.

The issue of musculoskeletal disorders (MSD), its management and the actions needed for reducing it cannot be dissociated from the subject of our second Conference, which is to be held in Helsinki next November, on psycho-social risks and stress at work.

Following these two Conferences, all this work must enable us to draw up possible recommendations, an agreement, or even a directive on the prevention, recognition and management of musculoskeletal disorders and psycho-social risks in the healthcare sector.

At present, at all levels, it must be concluded that the social dialogue is used more in speeches than in practice. Therefore, let us demonstrate together, and I have no doubts about bringing to life and our capacity to generate initiatives to promote occupational health and safety at the workplace.

Thank you all.

### **Marta BRANCA, ARAN, Italy (HOSPEEM)**

Today we have heard that the prevalence of musculoskeletal disorders among healthcare workers is still very high and that there is the association between musculoskeletal disorders, particularly back pain, and the carrying out of activities for patient care. The physical shifting of a patient by personnel involves movements requiring considerable exertion, often associated with adopting an awkward posture and lifting overly heavy weights.

Assistance activities can be carried out in very different contexts: wards, outpatients, emergency care, operating rooms or even in homecare situations. This wide diversity of demands on the welfare system, environmental contexts and the availability of aids and equipment make it an extremely complex issue, and the way forward for the development of epidemiological studies and monitoring programmes and prevention is quite particular. As we have heard in all the presentations, different countries have proposed several approaches for assessing and managing the biomechanical risks in this area, also very different.

Most of them regard **training**. This should be firstly dealt with during the initial professional studies, but also with ongoing refresher courses during the work life. We've listened to the Spanish experience for nurses and the Swedish programme for all employees, underlining the risk analysis, a 5 day compulsory training for all nursing staff and a half-day simulation at least once a year. This programme foresees specific instructors that teach patient handling and movement and also give advice on how to use equipment and different types of aids for handling. Of course, all these courses should be tailored to each different working place to be more effective, and even in order to contain costs. And it seems that, in fact, the programme was really effective as this experience resulted in the reduction in injuries and, consequently, the reduction in staff sick days. Regarding training, we must also mention the interesting British experience of the 'backpack', a manual for personnel, to prevent and reduce musculoskeletal disorders, drawn up with the useful collaboration between the management, staff and unions. And we have to mention the Dutch – but not only –

experience of ergo coaches that shows us the importance of the involvement of personnel in fighting this problem, in a very bottom up view.

Another approach we heard about focuses on **ergonomic design** to improve healthcare facilities and to overcome the possible future decline in healthcare workers. This experience is about the analysis of hospital conditions and shows that better conditions mean improved workflow and better service quality, that means fewer injuries and so, in conclusion, more cost-effectiveness.

Some of the experiences seem to have a **holistic** approach, assessing the impact of work organisation and patterns on the health and safety of health workers and evaluating the biomechanical load reduction resulting in the use of different types of handling aids.

One of the important suggestions that seems to emerge from the presentations of today is that it's necessary to continue the research to better understand the relationship between the carrying out of activities in handling patients and the occurrence of musculoskeletal disorders, and above all to identify effective prevention programmes in reducing these disorders. This could even involve considering the need to maintain a good working capability right up to retirement age, that now often occurs after 60 years of age. And this task could be better carried out with effective social dialogue activities.