

Taxi drivers' safety and health: A European review of good practice guidelines

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TAXI DRIVERS' SAFETY AND HEALTH - A EUROPEAN REVIEW OF GOOD PRACTICE GUIDELINES

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1 Introduction

1.1 Objective of this report

The aim of this report is to scope the availability of good practice material on the occupational health and safety of taxi drivers and chauffeurs, a category that includes:

- licensed cab drivers
- unregulated 'minicabs'
- limousine drivers
- company chauffeurs

This report presents examples of good practice guidelines, risk prevention recommendations and intervention examples. The guidelines cover many different risks for taxi drivers and others who drive cars for a living, not just road safety. The report does not pretend to be completely comprehensive, but provides a flavour of the range of guidance about preventing risks to taxi drivers that is available in some member states.



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1.2 Methodology

This report is a collaborative effort, produced by authors from BGIA, HSL, KOOP and Prevent, who formed part of EU-OSHA's topic centre – work environment in 2008. The identification and retrieval of relevant guidelines and recommendations for taxi drivers and chauffeurs was shared between the four partners and has been collected from various member states in the European Union (Denmark, Sweden, Germany, United Kingdom, Austria, Belgium, the Netherlands, France and Spain) and non-EU countries (USA, Australia). The research was carried out via the internet. Different organisations were contacted to get a broad overview of existing guidelines and good practice information for taxi drivers and chauffeurs.

The key themes that the search covered included: car maintenance, safe driving, working hours and breaks, training and supervision, violence, stress, car design, musculoskeletal disorders (MSDs), vibration, lifting and handling, traffic fumes, use of contractors, welfare facilities, what to do if an accident occurs, working hours, shifts, and night work.

This report presents examples of good practice guidelines and risk prevention recommendations. The focus is on **what** is recommended, not on **how** the good practice was developed, disseminated, etc. The output of the literature review is a series of examples of good practice material and their recommendations. The report includes checklists for risk assessment, checklists / examples of typical prevention measures, prevention advice on specific topics and short examples of good practice solutions.

2 Overview of the different risks

Due to their profession, taxi drivers and chauffeurs are exposed to certain risks. For example, a review of best practice road safety initiatives reveals considerable anecdotal evidence that taxi drivers around the world drive in a manner the rest of the public considers to be unsafe.¹ The most important risks² linked with driving are physical, chemical, biological and psychosocial risks. In addition, the individual behaviour of the drivers can also be harmful to health.

- Physical risks³
 - Vibrations: Drivers are exposed to vibrations produced by their vehicle. These vibrations are more or less harmful depending on the type of vehicle, the average speed, and how many hours are spent driving.
 - Manual handling of loads by lifting, holding, putting down, pushing, pulling, carrying: taxi drivers carry out manual handling of loads, e.g. when they lift or hold luggage, when they push a wheelchair or when they help support people with a disability.
 - Risks linked with a long sitting position, including MSDs of the neck, shoulder and back, and cardiovascular diseases.
 - Risks linked with being 'on the road'.
- Chemical and biological risks⁴

Professional drivers, particularly those who work in the city, are exposed to exhaust fumes and other pollutants.
- Psychosocial risks⁵

The two most important risks in this category are stress and violence.

 - Stress: Research in this field shows that professional drivers have heavy psychosocial demands (a repetitive and monotonous job requiring a high degree of concentration), little latitude for decision-making and weak social support (an isolated job with limited contact with colleagues). The organisation of the work can also be a cause of stress: unsocial working hours, long shifts, etc. Taxi drivers can be at high risk of fatigue, for example, they may work 10- to 12-hour shifts. In Sydney, for example, taxi drivers have a total average working week of 58 hours. It has also been shown that the accident rate increases as the total average break time per shift decreases (Dalziel and Job, 1998).⁶ In addition, night work and irregular schedules may, for example, cause sleep problems.
 - Violence: Taxi drivers are more exposed to violence and aggression than the average worker (one study showed that they are 15 times more likely to be a victim of violence).⁷ They work alone and at night, they have cash in the car and they may drive through isolated and dangerous areas. These clients may have drunk excessive amounts of alcohol or have taken drugs.
- Individual behaviour⁸
 - Smoking
 - Consumption of stimulants, such as coffee, and alcohol
 - Lack of physical exercise - taxi drivers and chauffeurs have a sedentary job
 - Low seatbelt usage rate among taxi drivers (and passengers) (Ferguson and Wells, 1999)^{9,10}

These behaviours can have an influence on the health of professional drivers. For example, too little physical exercise may cause metabolic problems.

3 Good practice guidelines and recommendations (EU)

Considering the different risks listed above, it is evident that there is a need for good practice guidance for the protection of taxi drivers and chauffeurs. There follows an overview of actions that countries have taken action in this field. The guidelines and recommendations are presented according to the risks to which they relate.

3.1 *Miscellaneous risks*

The instruments, guidelines and recommendations described below were developed to map the various risks and to formulate measures to combat them.

3.1.1 Checklists

1. Checklist for carrying out risk assessment for taxi drivers and transport of people with a disability (Checkliste til brug for APV på taxi og handicapområdet)

Organisation: BAR – transport og engross (Danish working environment council for the transport and wholesale sector)

Country: Denmark

Type of organisation: Working environment council

Resource type: Checklist

Reference/link: http://www.bartransport.dk/Files/Billeder/BAR%20Transport/pdf/apv_taxi.pdf

The good practice recommendations

This checklist should be used as supplement to the standard risk assessment materials of the working environment council for the transport and wholesale sector (see cases 2 and 3). It deals, among other subjects, with areas that could be problematic in transporting people with a disability by taxi. If problems are detected through working with this list, they should be recorded on the risk assessment form. It deals with topics such as equipment in the car, safety features, special conditions and equipment for the transport of disabled people, car maintenance, etc. There is space at the end of the checklist where more information can be written. According to Danish law the checklist has to be signed by the employer and the employee, or a representative of the employee.

Checklist

Workplace equipment

- Is it possible to adjust the steering wheel and the front seat? If yes, is the driver doing so?
- Does the car have a radio set/telephone, an automatic gearbox and/or air conditioning?
- Are there instructions about getting in and out of the car (frequency, etc.)?
- Is there a particle filter to prevent the inhalation of hazardous materials?
- Is there an alarm system installed, and do the drivers know how to use it?

In-car equipment

- Airbag, safety zone, seatbelt, TCS (traction control system), ABS (anti-lock brakes), brake assist, etc.

Special conditions for the transport of persons with a disability

- Door height, space in the car (do you have to remove seats to fit in a wheelchair?)
- Has the driver been taught how to lift wheelchairs?

Work organisation

- Is the driver involved in planning journeys?
- Is there a procedure for the instruction of new staff?
- How long is the working day?
- Courses in: first aid, driving, service-oriented business, conflict resolution
- Handbook for taxis
- Are the drivers prepared in case of robbery or carjacking?
- Declaration of work accidents, etc.

Car maintenance

- Cleaning, washing

Other

- Agreements about safety and health at work, if there are more than five employees;
- Choice of suppliers;
- Agreements with employees.

2. Checklist for transport of passengers – taxi (Tjekliste til transport af passagerer – Taxi)

Organisation: Arbejdstilsynet (the Danish working environment authority, WEA)

Country: Denmark

Type of organisation: Working environment council

Resource type: Checklist

Reference/link: <http://www.at.dk//graphics/at/pdf/checklister-apv/transport-taxi-apv.pdf>

The good practice recommendations

All firms that employ people are obliged to draw up a risk assessment in collaboration with the employees. This checklist for taxis is one of many sector-oriented checklists that the WEA (the Danish working environment authority) has developed especially for small firms with fewer than 10 employees. Together with corresponding guidelines (see case 3), the checklists are the basic information materials of WEA.

The checklist for the taxi industry comprises 42 questions covering topics such as accidents, the working environment and the relationship between employees and supervisors. The questions have to be answered with a 'yes' or 'no'. Each 'yes' answer points to a problem. To reduce or eliminate these problems the employer must come up with an action plan, in cooperation with the employees. This plan is also part of the checklist and must be signed by both partners.

Since there is a particular risk of stress within the taxi sector, the WEA should have checked the taxi firms for this (according to a political agreement on improving OSH, 2006).

Checklist

Accidents

- Are there employees who are taking unnecessary risks?
- Are there accidents that are not investigated, so that the same accident is likely to happen again?
- Are there employees who are not instructed or trained in their work?
- Are there any safety materials that are not checked regularly for defects?

- Do some employees have insufficient time to complete their work in safe way?

Internal transport and travel

- Is there a risk for employees of getting struck by a vehicle (like cars or trucks)?

Climate in the car

- Temperature;
 - Work environment circumstances
 - Is the temperature in the car higher than 25° C or lower than 18° C when the outside temperature is normal?
 - Are there any draughts in the car?
- Air quality;
 - Are there distracting smells from the fixtures or the surroundings?
 - Are the occupants exposed to exhaust fumes?
- Light;
 - Is the light dazzling?
- Noise;
 - Is there distracting noise from the outside?

Ergonomics

- Heavy lifting;
 - Are heavy objects being lifted manually?
 - Are heavy objects being carried while walking?
 - Are many objects heavier than 3 kg being lifted in the course of the working day?
 - Are heavy objects being lifted in bad working postures (e.g. far away from the body, above shoulder height or under knee height)?
- Heavy pushing and pulling;
 - Is it necessary to use a lot of strength to push or pull equipment, e.g. wheelchairs?
 - Is the floor uneven, wet, slippery, or are there steps?
 - Do employees have to push and pull equipment in confined surroundings?
 - Do the employees find that the things they are pushing or pulling are heavy?
- Working postures;
 - Is the posture during work uncomfortable?
 - Do the employees have to work in the same posture for a long time?
- Vibrations;
 - Do the employees use vehicles in which the drivers are exposed to strong vibrations?

Cold and heat

- Do the employees often alternate between very cold and very warm surroundings?

Psychosocial working environment

- Excessive demands;
 - Is it necessary for employees to work very fast?
 - Does the work require the employees to hide their feelings?
 - Are there employees who have very long working hours over an extended period?
 - Are contradictory demands frequently made of the employees?
- Insufficient demand;
 - Are there too few possibilities for the employees to use their knowledge and skills at work?
- Lack of influence;
 - Do the employees have too little influence on decisions related to their own work?
- Lack of support;
 - Do the employees get too little help and support from their colleagues?
 - Do the employees get too little help and support from their supervisors?
- Lack of development;
 - Is there a lack of possibilities for the employees to learn something new because of their work?
- Lack of variation;
 - Is there little or no variation in the work tasks?
- Lack of relevant information;
 - Are the employees not getting at all the information they need to fulfil their work adequately?
- Bullying/harassment;
 - Does bullying or harassment take place at work?
- Lack of rewards;
 - Is there little or no reward and appreciation by the supervisors for the employees?
- Violence and threats;
 - Are the employees exposed to violence, threats or insults by clients?
- Shift-work;
 - Are there employees who mostly work unsocial hours, such as early in the morning or at night?

Sickness

- Are there circumstances at work that can influence the amount of sick leave taken?
- Could changes at work help to reduce sick leave?

3.1.2 Guidelines and recommendations

3. Passenger transport – improve working life: working environment guidelines no.17

(transport af passagerer – gør arbejdslivet bedre: Vejviser til et bedre arbejdsmiljø på din virksomhed #17)

Organisation: Arbejdstilsynet (the Danish working environment authority, WEA)

Country: Denmark

Type of organisation: Working environment authority

Resource type: Handbook

Reference/link: <http://www.at.dk/sw5779.asp>

The good practice recommendations

The Danish WEA has a series of sector-oriented guidelines. Together with the corresponding checklists (see case 1, checklist for implementation of risk assessment for taxi and transport of people with a disability and case 2, checklist for transport of passengers) these are the basic information materials of the WEA. This material helps taxi companies and their employees to draw up the statutory written risk assessment and action plan together.

Guideline no. 17, which includes the taxi industry, presents a model for risk assessment in passenger transport including two concrete examples (of which one is taken from the taxi industry). Risk assessment and possible solutions are dealt with for each of the following items: accidents, psychosocial risks, working posture, noise, temperature in the car and vibrations. Each of these topics is subdivided into two sections entitled 'Identify your problems', and 'How to solve the problems', and there is a note indicating that the reader can find more information on the specific topics on the website www.transport.at.dk. There are short notes at the end of the guidelines on what to do when some employees are subject to specific regulations, such as young workers between 13 and 17 or pregnant and breastfeeding women. WEA should have checked the taxi firms during 2008 (according to a political agreement on improving OSH).

Example of the use of these guidelines

The taxi company F. Nielsen is the owner of Stjerne Taxa (Star Taxi).

There are six permanent employees and ten to twelve temporary employees who mostly help cover the increase in demand on the weekends. After a meeting about work environment with other taxi companies, the owner of Stjerne Taxa embarked on a risk assessment. The company organised three employee meetings to work on the risk assessment and come up with the key themes that required action plans. The biggest problems facing drivers are the objective threat of violence and the subjective fear of violence. The company is thinking about developing special training, in collaboration with other taxi companies and their drivers, to improve drivers' skills in handling violent passengers and weekend passengers in general. Another problem for many of the drivers is the irregular work patterns and shifts; the company has now introduced a schedule that allows for more regular hours, which is healthier.

4. Going further with your taxi (Verder met de taxi)

Organisation: Taxi Social Fund

Country: The Netherlands

Type of organisation: NGO

Resource type: Agreement

Reference / link: <http://www.sociaalfondstaxi.nl/>

The good practice recommendations

In the Netherlands taxi industry, a two-year agreement introduced in March 2005) was made between the employers' and employees' organisations and the Ministries of Social Affairs and Employability. The aim of the agreement was to reduce the risks at work and absenteeism in the industry by reducing the physical load, stress at work and aggression and violence faced by taxi drivers. The target of these measures was to reduce absenteeism by 20%.

A flyer was distributed to publicise the agreement, and two 'Arbocoaches' ('labour coaches') were also employed to guide the taxi services in this matter.

What was done in practice?:

- Helpdesk set up to answer questions about occupational safety and absenteeism;
- Courses held on safe sitting, lifting, carrying, pushing and pulling;
- Courses held on the prevention of work-related stress;
- Information distributed about the prevention of aggression and violence;
- Information given about reporting and aftercare when aggression or violence occurs;
- Brochure published with advice for employers of taxi drivers to improve occupational safety and health. Employers should do the following:
 - Offer courses to the drivers on sitting, pulling, pushing, carrying, etc. without injury; as far as possible, provide appropriate manual handling aids and encourage them to take physical exercise between rides and outside working time;
 - Strive for realistic planning of journeys/ a good atmosphere in the company and a positive relationship between the employer and employee;
 - Introduce a protocol for reporting cases of aggression and violence; promote good communication between dispatcher and driver / good care and aftercare after an incident.

See also <http://www.sociaalfondstaxi.nl/gezond-werken/veilig-in-de-taxi>

5. Preventie (Prevention)

Organisation: Taxi Social Fund (Sociaal Fonds Taxi)

Country: The Netherlands

Type of organisation: NGO

Resource type: Web page

Reference / link: <http://www.sociaalfondstaxi.nl/>

The good practice recommendations

This web page provides information on different aspects of prevention:

- 'Saving your back': practical explanations of the risks of carrying heavy loads. Exercises that participants can do to become more aware of their posture and advice on how to prevent overload. The back safety section has three parts: theory, practice with car and minibus (wheelchair, luggage, how to get in and out, how to adjust seat and steering wheel) and a test.
- 'Good management': how can managers contribute to a healthy work environment? In this course managers learn how to work towards a healthy work environment for their employees. The starting point is that healthy and happy employees are better employees.
- Information on a health and safety advisor.
- A test especially developed to map the risks in the taxi sector.
- A list to help compile an inventory of the risks in a company, especially developed for the taxi industry. The list includes relevant information about the risks. This inventory has two targets: 1) a list is made of all the risks in the company; 2) a plan is then made to formulate solutions to the risks. Among the risks listed are:
 - Physical load (adjustment of seat and steering wheel, maximum weight of luggage the driver may lift [23 kg]);
 - Transport of wheelchairs (does the company have vehicles suitable for wheelchair transport, is there a lift, if so has the driver been trained to use it, has driver been instructed on how to roll the wheelchair in and out of the vehicle);

- Vehicle (suitable temperature in the vehicle, is relevant equipment easy to reach with one hand on the steering wheel, fire extinguisher, first aid kit, has the driver been instructed what to say to the passengers about their own responsibility);
- Aggression / violence (are there clear rules about what a driver can do against passengers who misbehave, can a driver refuse a potential customer, are there clear rules about the communication when an incident happens, clear rules about care and aftercare);
- Workload (time pressure, how often does a driver arrive late for a pickup, do the employees feel supported by the organisation, do the drivers sometimes get contradictory instructions from the control centre);
- Information on work stress and physical workload;
- Research on wheelchair systems.

6. **Safe taxiing!** (Taxi fahren – aber Sicher)

Organisation: German Taxi and hired car association (Deutscher Taxi- und Mietwagenverband e. V.).

Country: Germany

Type of organisation: Registered association

Resource type: Guideline/leaflet

Reference/link: <http://www.taxiverband.net/aktuelles/Auszug%20SiBro.pdf>

The good practice recommendations

This guideline for taxi drivers, covering various topics, is divided into three main sections. The first concerns assaults at work – giving information ranging from ‘why do taxis get attacked?’ to ‘self-defence in case of emergency’ and how to avoid assaults. The second section includes information about road safety and what taxi drivers can do to drive safely and comfortably. The last main section contains chapters about the importance of getting enough sleep before work, sitting correctly and how to stay healthy. There is a list of links to internet platforms and other information sources at the end of the guideline.

7. **Guide for prevention of occupational risks for taxi drivers**

Organisation: Developed by ENKEN Servicios de Prevencion S.L. (now part of MAPFRE), financed by the foundation for the prevention of occupational risk factors

Country: Spain (Valencia)

Type of organisation: Prevention service

Resource type: guide

Reference / link: http://www.enken.es/seguridad_datos.htm
<http://www.mapfre.com/seguros/es/empresas/soluciones/mapfre-servicio-prevencion.shtml>

The good practice recommendations

Based on a pedagogical approach, this guide informs drivers in the taxi sector about the risks they are exposed to that might give rise occupational accidents and work-related diseases. The guide describes incorrect behaviour as well as hazardous actions, and shows various prevention measures that might be adopted. It also contains a simple and practical method for carrying out both a general and a specific risk assessment. It provides the user with an information tool which facilitates self-assessment and the planning of prevention measures.

8. **The carefree package for ASD-customers** (Das Sorglospaket für ASD-Kunden)

Organisation: Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the vehicle operating trades) in cooperation with taxi-vehicle insurance

Country: Germany

Type of organisation: Institution for statutory accident insurance and prevention. ASD is a prevention service.

Resource type: Web link

Reference/link: <http://www.bg-verkehr.de/arbeitsmedizinischer-und-sicherheitstechnischer-dienst/leistungsspektrum/sorglospaket-und-info-flyer>

The good practice recommendations

The social accident insurance offers several health and safety services for companies running taxis and car transport, e.g. risk assessment, occupational health and prevention, safe driving etc.

9. Taxi Policy Plan 2005 – 2009

Organisation: Regional Government of Brussels

Country: Belgium

Type of organisation: Governmental department

Resource type: Policy plan

Reference/link: <http://www.bruxellesmobilite.irisnet.be/articles/taxi/>

The good practice recommendations

This policy plan was set up by the Brussels Minister of Mobility. The plan was developed in collaboration with the different parties active in the sector. The taxi is seen by the Minister as part of an efficient urban mobility concept as an alternative to private car ownership, and as an important component of a night-time transport network. Part of the problem is that the taxi sector has a bad image which needs to be overcome. The policy plan includes measures that ensure greater safety for taxi drivers as well as passengers:

- The owner of the taxi service has to have a licence;
- The taxi driver has to have a licence of competency;
- Taxi ranks are more clearly signposted, and taxis are no longer allowed to park on busy roads. This is to ensure the safety of the customer as well as the driver;
- Every six months, the managers of taxi companies have to have their vehicles safety checked;
- When people in wheelchairs have to be transported, a special vehicle must be used to make the task easier for the taxi driver;
- There are measures against social fraud (among others, the establishment of a social support cell, the social legislation becomes part of the training for candidate-drivers).

3.1.3 Training

10. Vocational Training and Working Environment in the Transport Sector – Taxi

Arbetsmiljö och utbildning i transportbranschen (TYA) – Taxi

Organisation: TYA – the Vocational Training and Working Environment Council (Transport Trades)

Country: Sweden

Type of organisation: a non-profit-making association established by worker and employer organisations in Sweden's transport sector

Resource type: Website

Reference/link: <http://www.tya.se/tya/branscher/taxi/omtaxi.asp>

The good practice recommendations

TYA is an association that acts as a liaison between employee and employer organisations in the transport sector. Its main function is education and project work in working environment and vocational training.

With regard to the taxi industry, it carries out research projects, runs courses and publishes information of interest to the sector. Courses include:

- The working environment for drivers of special transport (for instance, disabled persons);
- Interactive training in ergonomics;
- Factors contributing to regular attendance at work and low sickness rate;
- Training of drivers for special transport;
- Threats and violence against taxi drivers (follow-up project);
- Economic driving for taxi drivers (development course).

Publications include brochures and handbooks with health and safety messages, such as 'feeling good at work' 'how are you sitting?', and various guides for the different jobs (driver, taxi operators etc).

TYA carried out a major research project into violence against taxi drivers, where they analysed the situation in the sector and came up with ways of making the work safer for employees. They noted, for example, that a camera can protect drivers from violence in the car because it works as a deterrent. The methods put into place after the first project were assessed in a second project in 2008.

3.2 Physical risks e.g. vibrations, manual handling of loads and sitting for long periods

3.2.1 Guidelines and recommendations

11. Drivers' working environment in special transport (Chaufförernas arbetsmiljö inom färdtjänsten)

Organisation: Swedish Work Environment Authority, WEA

Country: Sweden

Type of organisation: WEA

Resource type: Website

Reference/link: Website of the Swedish WEA

<http://www.av.se/teman/transport/arbetsmiljoer/fardtjanst/>

The good practice recommendations

'Special transport' includes patient transport by ambulance, transport of disabled persons, and school buses; i.e. publicly financed but carried out by private firms.

This website includes information on systematic work environment management and MSDs, as well as a survey of the responsibilities and duties of the various parties (employees, employers, contractors, municipalities) concerning working conditions in this sector.

Their aim is to improve the working life of drivers of special transport vehicles.

12. Better backs initiative – Ergonomics assessment of the movement of wheelchair users by taxi drivers

Organisation: HSE/HSL

Country: UK

Type of organisation: Government OSH authority

Resource type: Report

Reference/link: <http://www.taxi-driver.co.uk/wheelchair.pdf>

The good practice recommendations

A number of recommendations were made, which are reproduced below.

Introduction

Taxi drivers are exposed to a number of risk factors for lower back pain. These include:

- Prolonged sitting posture, as influenced by drivers' cab and seat design;
- Cumulative exposure to whole-body vibration;
- Cumulative exposure to other manual handling activities, such as assisting passengers with items of baggage;
- Assisting wheelchair users.

As part of the HSE's 'better backs' initiative, in 2005 an ergonomic assessment of the movement of wheelchair users by taxi drivers was carried out to assess the risks and identify best practice. A number of different manual handling techniques were assessed and the one deemed to pose least risk identified. Based on the findings of the assessment, advice and recommendations were also made regarding risk assessments and training as well as pick-up and drop-off areas.

Recommendations

Safe systems of work should be in place to make taxi travel accessible for wheelchair users whilst managing the risks of injury to both taxi drivers and passengers.

- Manual handling risk assessments should be completed for the transport of wheelchair users. Such risk assessments should consider:
 - What systems are in place for reporting and repairing any damage to equipment such as the extendable ramp or safety restraint, which may increase the risk of injury to either the driver or wheelchair user?
 - What policies and systems are in place for managing and reviewing the transport of particular wheelchair users that may pose a higher level of risk to taxi drivers?
 - What systems are in place for managing and reviewing the transport of wheelchair users to particular locations that are less accessible and may pose a higher level of risk to taxi drivers and passengers?

Drivers should receive appropriate training; a suggested format is as follows:

- Disability awareness training;
- Practical training of fastening and unfastening the wheelchair users' safety restraint;
- Practical training of pushing wheelchair users of different body sizes into the various types of taxi;
- Manual handling training. This should cover risk factors so that drivers can carry out suitable individual risk assessments and take appropriate measures to manage the risks;
- Practice driving wheelchair users and experiencing transport in the back of a taxi as a wheelchair user.

Alternatively, the development of a more in-depth wheelchair handling training course should be considered, which focuses on aspects such as personal risk assessment and the control of risk factors specific to wheelchair users and peripatetic work.

Of the manual-handling techniques studied during this assessment, the preferred method involved the use of an extended ramp. It was recommended that taxi drivers should push the wheelchair up the ramp in two separate motions. They should first position the chair centrally within the width of the ramp and move the chair forward until the rear wheels touch the edge of the ramp. They should then review the alignment of the chair on the ramp, take a step back, straighten their arms and lean into the push. This would allow the drivers to use their body weight and larger muscle groups in the legs to counteract the downward force of the wheelchair user on the ramp. Gender differences are likely to be minimised using this technique where leg strength, as opposed to upper body strength, becomes more influential when performing the task.

An important risk factor was found to be the availability of accessible pick-up and drop-off locations where the taxi driver can pull up alongside a kerb. Where this is not the case, it is estimated that the forces required to move many wheelchair users up the taxi's extended ramp will be beyond the safe performance for about 25% of males and 75% of females. It was therefore recommended that local authorities provide suitable pick-up and drop-off points outside hospitals and other locations where wheelchair users may frequently visit.

Other risk factors associated with the environment were identified. These include:

- Roads on an incline; increasing the risk of the wheelchair tipping sideways or running off the ramp;
- Traffic in close proximity to the taxi;
- Obstacles along the kerb (e.g. parked cars) that could restrict visibility, and create confined spaces in which to perform the task;
- Uneven terrain (e.g. cobble stones);
- Pavement surfaces with reduced frictional properties (e.g. tiles, cobble stones) that would increase the potential for slipping;
- Rain, snow or ice, which would further increase the risk of slipping.

Drivers are advised to politely but firmly decline the fare if they believe they would have to operate under unsafe conditions.

Separate initiative under the 'Better Backs' campaign: in 2005-6 the General Osteopathic Council ran a Steer Clear of Back Pain campaign aimed at London's 25,000 licensed taxi drivers including information packs and opportunities for osteopathic assessments (<http://www.johnlant.co.uk/Newsletter%20Spring%202006.pdf>).

13. Manual handling, wheelchairs and transport

Author: Susan A. Beresford

Country: UK

Type of organisation: N/A (Susan A. Beresford is a part-time senior lecturer in occupational therapy at University College Northampton)

Resource type: Clinical article

Reference/link: http://www.ijtr.co.uk/cgi-bin/go.pl/library/article.cgi?uid=13945;article=IJTR_6_9_459_465

The good practice recommendations

Introduction

The transportation of wheelchair users by taxi can require the driver to undertake manual handling operations such as assisting wheelchair users into or out of the taxi, and loading/unloading wheelchairs. These tasks can be physically demanding and can result in injury. This article considers these issues and assesses the various aids that are available to help minimise the risk of injury.

Recommendations

The article refers to the joint National Backpain Association and Royal College of Nursing publication on handling people (Fletcher et al., 1997), which advocates a 'no lifting' policy. Wheelchairs can be lifted but if this proves awkward or heavy, the choice of transport and lifting aids should be considered.

If it is necessary to lift a wheelchair into a car, to reduce the weight and awkwardness it is recommended that armrests, footplates, wheels (if quick release) and any other accessories are removed prior to lifting and then loaded separately. Taxis can be modified or carry equipment to assist with manual handling operations. These include ramps, roof top wheelchair carriers, swivelling front seat and a variety of hoists. Careful consideration should be given to choosing the most appropriate aids in order to minimise the risk of injury to taxi drivers and their passengers.

3.3 Road Safety

3.3.1 Guidelines and recommendations

14. Use of roads: public transport

Organisation: Regional Government of Brussels

Country: Belgium

Type of organisation: Government department

Resource type: Leaflet

Reference / link: <http://www.bruxellesmobilite.irisnet.be/articles/taxi/>
<http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/>

The good practice recommendations

A leaflet was produced to inform taxi drivers about the proper use of public roads. The leaflet points out which roads taxis may use (there are specific routes for buses, taxis and bicycles). The leaflet is illustrated with pictures showing which kind of roads the taxis can use and the road signs that indicate taxi use. There is also an overview of the roads taxi drivers cannot use.

Advice is also given on driving on routes especially developed for public transport. For example, drivers have to stick to the maximum 50 km/h speed limit, and they must pay particular attention when approaching bus or tram stops. And there are specific traffic lights relating to public transport.

15. I've got the right attitude (J'ai cette attitude)

Organisation: G7 Taxi Service

Country: France

Type of organisation: Private company

Resource type: Safety guidelines

Reference / link: <http://www.g7taxis.fr/>

The good practice recommendations

This document includes wide-ranging safety advice for taxi drivers:

- At the front is a certificate, intended to be signed by the driver and the company manager. The certificate lists a number of good practices such as obeying the rules of the road, ensuring the safety of passengers (e.g. by asking them to wear the seatbelt, advising them not to get in and out on the side of the traffic), checking the state of the vehicle, and abstaining from alcohol and drugs.
- The document includes a framework and advice on how to prevent an accident by: identifying and assessing dangerous situations (e.g. by constantly scanning the wider area, being focused and prepared), dealing with changing circumstances (good organisation of work and route, good knowledge of himself and the vehicle), observing safety precautions, avoiding damage (e.g. by not braking suddenly or steering too sharply, and staying calm). It emphasises the approach: 'look, anticipate, know what to do and when to do it'.
- If an accident occurs despite the prevention measures, the document contains a tool to help to analyse whether the accident may have been avoidable. A checklist asks if the accident was the result of a manoeuvre, whether it happened in traffic or while the car was parked, and what action the driver took. Questions are also asked about the condition of the vehicle and what the weather was like at the time.
- Advice is given on what to do about drivers who have already had more than one accident, e.g. a meeting can be organised to sensitise them about specific risks, individual conversations can be held with them, or someone can accompany them in the car to assess their driving.
- The rule of keeping 2 seconds distance between one's car and the car in front is discussed, and it is pointed out that in some conditions it is advisable to extend this to 3 seconds (e.g. in bad weather, if the driver is tired or taking medication).
- The document also contains information relating to car maintenance, to enable drivers to keep check of oil, water and brake fluid levels, the state of the battery and windscreen wipers, etc.

3.3.2 Training

16. Safety training for drivers (Fahrsicherheitstraining)

Organisation: German Taxi and hired car association (Deutscher Taxi- und Mietwagenverband e.V)

Country: Germany

Type of organisation: Registered association

Resource type: Training programme

Reference/link: http://www.taxiverband.net/information/gewerbeundpolitik/ar_in_24_06.htm

The good practice recommendations

This driving training, titled 'Taxi safety in traffic (TSV – Taxi Sicher im Verkehr)' helps taxi drivers improve their driving and learn more about health and safety at work.

The driver is taken on a two-hour drive accompanied by a trainer. The trainer points out situations in which he could drive with more care and foresight, and as an added bonus save some fuel. The training was tested in three German cities and found to be effective, so it is now available throughout the country. It is subsidised by the accident insurance institution for transport (vehicle owner) (BGF – Berufsgenossenschaft für Fahrzeughaltungen) so that the training costs around EUR 50 (instead of EUR 100) for the driver or the operator. The participants receive a badge for their taxi, so that their passengers can see they have taken part in the training.

17. Training for safe driving (Fahrsicherheitstraining)

Organisation: Berufsgenossenschaft für Fahrzeughaltung (Social accident insurance institution for the vehicle-operating trades) in cooperation with taxi vehicle insurer

Country: Germany

Type of organisation: Institution for statutory accident insurance and prevention

Resource type: Web link

Reference/link: <http://www.bg-verkehr.de/>

The good practice recommendations

Insurance industry data indicates that taxi companies whose drivers participated in safe driving training make fewer accident claims than companies that don't arrange safety training for their drivers. From 2003 to 2007 the claims level was on average 10% less in companies with trained drivers. The statutory insurance body for the taxi industry therefore recommends that all taxi companies take advantage of the standardised safe driving training on offer.

18. Free defensive driving course for taxi drivers

Organisation: Regional Government of Brussels

Country: Belgium

Type of organisation: Government department

Resource type: Training

Reference / link: <http://www.bruxellesmobilite.irisnet.be/articles/taxi/>

<http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/>

The good practice recommendations

The Brussels government offers taxi drivers a free, voluntary defensive driving course. This is to ensure the safety of customers, other road users and the taxi drivers themselves. The course covers topics such as paying attention to the other traffic, driving conditions, traffic regulations and the condition of the vehicle. There is a practical and theoretical part and participants are tested by an exam at the end.

3.4 Chemical and biological risks

Good practice that tries to formulate an answer only to chemical and biological risks was not found. However, in the checklists described under '3.1 Miscellaneous risks', mention was made of chemical and biological risks to which taxi drivers may be exposed.

3.5 Psychosocial risks linked with violence and stress

3.5.1 Guidelines and recommendations

19. Alarm systems and psychological first aid in the taxi industry. A handbook about building up a crisis response group (Alarmsystemer og psykisk førstehjælp i taxibranchen. En håndbog i opbygning af et kriseberedskab.)

Organisation: BAR for transport og engros

Country: Denmark

Type of organisation: Working Environment Council

Resource type: Handbook

Reference/link:

<http://www.bartransport.dk/Files/Billeder/BAR%20Transport/pdf/Alarmsystemer.pdf>

The good practice recommendations

This handbook is intended for use by taxi call centres, taxi companies and drivers. It covers the prevention and handling of violence, assaults and hostage-taking. It underlines the importance of psychological first aid for all victims in a crisis situation, and those in the taxi industry can use it as a guideline for establishing a crisis response group. This is simply a group of colleagues who can support each other in crisis situations and help the victim while the police concentrate on the offender. Their role is also to train colleagues in the procedures to follow. It describes the type of training necessary, how the group should be organised, and gives concrete action plans for the different parties involved in a crisis situation (the car that gave the alarm / the victim, the taxi call centre, the other taxis and the members of the crisis response group). The group should provide a network for the handling of a crisis situation in the taxi call centre and guide their colleagues through such a situation, with the aim of preventing psychological harm or resignations following an emergency. The handbook even suggests ways of funding the group, e.g. by establishing a foundation. It includes a template of a charter for such a foundation.

20. Safe taxi driving: a leaflet for drivers (TAXI fahren aber sicher – Sicherheitsbrief für Taxifahrer)

Organisation: Regional (Schleswig-Holstein) taxi and hired car association and the police in Flensburg

Country: Germany

Type of organisation: Industry association and police

Resource type: Leaflet (in form of a pdf file)

Reference/link: <http://www.taxi-mietwagengewerbe-sh.de/Praevention/Taxi.pdf>

The good practice recommendations

This is a very short leaflet for taxi drivers with eight golden rules on how to work safely (code of behaviour). It also has printable signs for taxi drivers to place on their car, such as one saying 'small change only', which indicates that there is no point in robbing the driver. Another sign says: 'Victim type', with a strikethrough red circle in the background. This is to remind the driver about the golden rules and tell him that he is not a 'victim type' but the boss in the taxi.

The eight golden rules are:

1. I'm not the victim type; I'm in charge in the car. I'm showing this by my self-confident appearance, my decent clothes and by communicating clearly with the passenger;
2. I'm not risking my life because of EUR 100;
3. I'm using the alarm system in case of danger;
4. I only have the necessary cash with me. I'm showing this to everybody by having the badge in the car;
5. I'm never putting my wallet in sight of the passenger;
6. I'm forcing myself to react calmly to aggressive and provocative behaviour;
7. My main aim in a dangerous situation is to escape;
8. I'm memorising the appearance of the attacker and calling the police on 110 as soon as possible.

The driver can also print these rules put them up somewhere he can see them.

21. How to ensure your personal safety as taxi driver

Organisation: Workplace Safety Advice

Country: UK

Type of organisation: Private safety forum

Resource type: Web page

Reference/link:

<http://www.workplacesafetyadvice.co.uk/how-ensure-your-personal-safety-taxi-driver.html>

The good practice recommendations

This web page describes the main risks for a taxi driver and suggests some ways in which the driver can keep himself safe. For example, the driver is advised to remain calm and in control. He should not retaliate if threatened, and he should always stay in the taxi. Other safety measures include door handles that can be modified so that they only open from the inside, and CCTV in the car.

22. Violence towards taxi drivers

Organisation: The Society of Professional Licensed Taxi Drivers (SPLT) and Radio Taxis

Country: UK

Type of organisation: SPLT is a trade association and Radio Taxis is a cooperative

Resource type: Web case study

Reference/link: <http://www.hse.gov.uk/violence/hslcasestudies/taxi.htm>

The good practice recommendations

Taxi drivers generally work alone, often late at night or in the early hours of the morning. Their job involves dealing with members of the public, some of who may be drunk or aggressive. Taxi drivers may also carry money, making them a potential target for thieves. Due to the nature of their job, taxi drivers are more at risk from violence than most other workers. On this site, SPLT and Radio Taxi provide a number of recommendations and services to help their self-employed members avoid the threat of violence.

Recommendations

1. Training – Prevention is key

The message to drivers is 'do not put yourself in a situation where you might be at risk'.

Key training messages:

- Be polite. Good customer service is essential. Make and maintain eye contact;
- Act in a non-confrontational manner;
- Do not try to fight back if threatened;
- Try not to leave the taxi cab. Drivers are safer in their own space where they can call for assistance if an incident occurs;
- Refuse a job if you feel unsafe;
- Do not volunteer personal information to passengers. Drivers should not mention that they are finishing a shift or going home.

2. Liaison with police

SPLT and Radio Taxis develop and maintain good links with local crime prevention officers. They can provide information and training to drivers and alert them of known potentially violent people and locations. Advice is provided about known trouble spots, unsafe areas and safe rest places. Drivers also inform the police about local incidents which they may witness as they drive around.

3. Communication and camaraderie between drivers

Although most drivers are self-employed, there is a culture of open communication between them. They share information and advice about violence issues and help one another if an incident occurs or if a cab breaks down.

4. Work environment and equipment:

- Door handles: modify door handles so they only open from the inside;
- Deadlocks: activate deadlocks only in known violent areas;
- CCTV: install in the cab along with visible signs to act as a deterrent;
- Safety film: use to cover glass windows;
- Decoy money bag: store most of money elsewhere;
- Lockable sliding screens: fit these between the customer and driver. Ensure that openings in screens used for paying fares are not in a direct line with the driver's head; this prevents attacks around the driver's neck;
- Emergency fuel-stop button: drivers can use this to simulate problems with the taxi which makes it easier to get aggressive or troublesome passengers to leave the cab;
- Equip cabs with a radio: this enables drivers to maintain contact with other drivers and the control room and to request advice or assistance;
- Panic alarms: fit these in taxi cabs and activate to alert other taxi drivers;
- PC screens: fit these for better communication. They display regular messages from the control room about new jobs; information from police about potential troublemakers or incidents in the area; and sound an alert if there is an emergency call.

Job design

- Account work: this is where companies or individuals set up an account with Radio Taxis. No physical money changes hands between customer and driver;
- Avoid certain geographical locations: avoid driving to or through known trouble spots;
- Avoid dead-ends: Before dropping off a passenger, drivers are advised to park so that they can make a 'quick getaway' if needed.

Other measures

- Global Positioning System (GPS): SPLT and Radio Taxis are experimenting with GPS in cabs and mobile phones.
- Money 'drop off' points: these are being considered so that drivers can deposit fares during a shift.

Less successful measures

Martial art training: a type of martial art self-defence training was tried. But drivers developed a false sense of security and acted more aggressively. It was therefore decided that non-confrontational techniques were more effective, posing less risk to personal safety.

23. Safety recommendations for taxi drivers (Sicherheitstipps, Taxilenker)

Organisation: Vienna police

Country: Austria

Type of organisation: commercial web news paper

Resource type: Web link

Reference/link:

http://portal.wko.at/wk/dok_detail_file.wk?AngID=1&DocID=539682&StlID=260308

The good practice recommendations

This brochure includes advice on risk assessing and preventing robbery and violence against taxi drivers. Tips include: assessing the customer - watch the customer's behaviour; assessing the trip and motives for it - if in any doubt, avoid probably profitable journeys into remote areas; spotting that a client is looking for a victim -be careful if a customer does not choose the first taxi in a taxi rank; using technical devices to optimise safety - e.g. video camera, silent alarms, stab vest; adopting behaviour that can reduce risks- do not display your money or give any information about how much money you make; do not provoke aggressive customers by showing aggression yourself; do not carry weapons, as they could be use against you; if robbed, do not chase the thief.

24. 'Reportage 24' - improved safety in taxis (Reportage 24 -Mehr Sicherheit im Taxi)

Organisation: Berufsgenossenschaft für Fahrzeughaltung (BGF: Social accident insurance body for transport industry) in cooperation with taxi insurance company

Country: Germany

Type of organisation: Institution for statutory accident insurance and prevention

Resource type: CD-ROM

Reference/link: <http://www.bg-verkehr.de/arbeitssicherheit-und-gesundheitsschutz/brancheninfos/taxi/medien-informationen-taxi>

The good practice recommendations

This CD-ROM documents a typical Berlin taxi driver's night shift. The aim is to increase awareness of violent taxi customers and how to solve dangerous situations. The realistic scenario encourages the driver to reflect on his/her own behaviour. It is generally recommended that taxi drivers act in a non-confrontational way. The CD also discusses technical devices that can increase drivers' safety, such as permanent video cameras and GPS-based emergency alarm systems. An additional safety measure is to accept payment by credit card instead of cash. See also example 33.

25. Toolkit for taxi safety

Organisation: Taxi Social Fund

Country: The Netherlands

Type of organisation: NGO

Resource type: Web page on dealing with aggression

Reference/link: <http://www.humatix.nl/toolkitveiligidetaxi/>

The good practice recommendations

This web page features different tools and resources to help counter aggression against taxi drivers. There are resources for the driver, the person who makes plans and the manager and the aim is to motivate and support the taxi companies to take preventive measures.

The resources include:

- Internet course: Entitled 'Safe in the taxi', this interactive course teaches the taxi driver how to deal with aggressive customers and how to help colleagues who fall victim to aggression.
- Various resources, such as special report forms that the driver can use to describe the violent incident quickly and easily.
- A card with instructions about technical safety, e.g. the use of alarms, video cameras, GPS.

- A flyer with ten safety tips for the driver (make good organisational agreements, know the technical safety measures, be careful, make a conscious choice about where the customer must sit, observe, always put the own safety first, a good conversation helps, take care of yourself, expand your knowledge about 'dealing with aggression' and care and aftercare).
- Brochure ('Agressie de baas'): giving the driver general information about dealing with aggression and violence. It addresses the following subjects:
 - What is aggression and what are the causes?
 - What are the risks for a driver?
 - What can be done about them?
 - What can my company do?
- 'Risico's in kaart' (Mapping the risks): This is a short checklist that asks the driver some questions about his attitude towards personal safety. By answering and scoring the questions, the person becomes more aware of his personal safety risk. The questions cover points including gender, age, weekend and night work, contact with drunken customers, whether the person is quick to lose their temper, whether they have friends they can discuss problems with, etc.
- A manual for care and after care.

3.5.2 Information about safety systems

26. Taxi Driver Safety in Germany

Organisation: Dortmund Police, representatives of taxi industry

Country: Germany

Type of organisation: Police, industry representatives

Resource type: Report of meeting

Reference/link: <http://www.taxi-library.org/index.htm>

The good practice recommendations

This is a report on a meeting between the police in Dortmund and representatives of the taxi industry in the city on the various safety systems available for taxi drivers. It discusses the advantages and disadvantages of four different systems: protective screen behind the driver; a taxi roof-sign alarm; a GPS satellite system; and video surveillance. The police felt that the video surveillance system was the best of the four, because it enables the police to identify the attacker. The meeting concluded that the ideal solution would be a combination of video surveillance and the GPS system, but this is difficult to implement, since it is quite expensive to install this combination.

27. SMS-Information system makes Vienna's taxi drivers safer (SMS-Info-System bringt mehr Sicherheit für Wiens Taxifahrer)

Organisation: Wirtschaftskammer Wien, Bundesministeriums für Inneres, Polizei

Vienna Chamber of Commerce, Ministry for Internal Affairs, Austrian police

Country: Austria

Type of organisation: Government departments

Resource type: Web link

Reference/link: http://www.brigittejank.at/static/janksite/files/PK_SMSInfoTaxi.pdf

The good practice recommendations

The Viennese police and Chamber of Commerce launched a project to help protect taxi drivers from robbery and violence. In 2007 a free SMS information system was introduced for Vienna's taxi drivers. The local police send group text messages to taxi drivers warning them about relevant

incidents, e.g. robberies. The Vienna Chamber of Commerce data shows that after the introduction of the scheme the rate of violence against taxis and their drivers fell. For this reason, they strongly advise all taxi drivers to participate in the SMS information system.

28. Taxi drivers get mugged and robbed every day (Raubüberfälle auf Taxifahrerinnen und Taxifahrer gehören leider weiterhin zur Tagesordnung)

Organisation: TAXIstiftung Deutschland (German Taxi Foundation)

Country: Germany

Type of Organisation: Foundation

Resource type: Web link

Reference/link: http://www.bzp.org/rundumstaxi/rut_stiftung.htm

The good practice recommendations

The foundation's data show an ever-rising number of assaults and robberies on taxi drivers between 1985 and 2007. For this reason several prevention measures are recommended e.g. silent alarm signals on the taxi roof, video registration and a GPS-based alarm. However, these measures are not preventive and therefore they do not guarantee the safety of the taxi driver.

29. Safety technology for taxis and hire cars (Sicherheitstechnik für Taxis und Mietwagen)

Organisation: ENAIKOOON GmbH, Telematics Factory, Helmholtzstr. 2-9, D-10587 Berlin

Country: Germany

Type of organisation: Telecommunication company

Resource type: Web link

Reference/link: <http://www.enaikoon.com/en/>

The good practice recommendations

This safety-themed website recommends equipping taxis with GPS-based emergency alarm systems, which may be activated in the event of robbery or violence. The telecommunication company ENAIKOOON offers GPS-based technical support to prevent violence against taxis (emergency button which activates a silent alarm based on GPS data). This system seems to be cheaper than other technical based safety devices (video recording etc.)

30. Safety for taxi drivers (Sicherheit für Taxifahrer)

Organisation: Tacho Mewes, Gustav-Ricker-Straße 50, D-39120 Magdeburg

Country: Germany

Type of organisation: Telecommunications service company

Resource type: Commercial web link

Reference/link: <http://www.tacho-mewes.de/taxi/taxisicherheit.htm>

The good practice recommendations

This website recommends that taxis be equipped with GPS-based emergency alarm systems as well as video cameras. The first device may be activated in case of robbery or violence, and the camera should be on all the time. The telecommunications company behind the site offers technical service and support to install safety devices in taxis and cars used for public transport, e.g. VHS-based or digital automatic video recording, and GPS-based devices.

31. Individual safety or safe individual data? (Sicherheit oder Datenschutz?)

Organisation: taxi-heute, HUSS-VERLAG GmbH, Joseph-Dollinger-Bogen 5, D-80807 München

Country: Germany

Type of organisation: Commercial web newspaper

Resource type: Web link

Reference/link: http://www.taxi-heute.de/termine/thema_einzel.php?id=73

The good practice recommendations

In general this source recommends video recording in taxis to reduce the amount of violence against taxi drivers. The benefit of filming for the drivers' safety is stressed, but reservations about data safety are also discussed. In Austria there is legislation providing a legal framework for video recording in taxis.

32. In-Car video camera

Organisation: Vartax Personenvervoer Amsterdam

Country: The Netherlands

Type of organisation: Private company

Resource type: Camera for safety monitoring

Reference/link: <http://www.taxi-library.org/rene.htm>

The good practice recommendations

A small camera (4x4x4 cm) is installed on the dashboard of the taxi. A sticker placed, for example, on the door informs the customer that filming will take place. In the event of a robbery the car is taken to a police station where a technician working for the supplier will hook up a read-out unit with printer and, after entering a special police code, browse through the pictures, making enlargements and printouts if necessary. The system was developed by a Dutch taxi driver who was robbed some years ago. Hundreds of the systems are now used by taxi companies in the Netherlands, Germany and Belgium.

Other resources can be found on: <http://www.taxitronic.nl/producten/toepassingsgebieden/veiligheid-in-de-taxi.html>

3.5.3 Training

33. Safety training for taxi drivers (Sicherheitsseminare der BGF)

Organisation: Berufsgenossenschaft für Fahrzeughaltung (BGF; social accident insurance body for transport industry) in cooperation with taxi insurance company

Country: Germany

Type of organisation: Institution for statutory accident insurance and prevention

Resource type: Web link

Reference/link: <http://www.taxiinnung.org/Seminar.60.0.html?&0=http://www.taxiinnung.org/>

The good practice recommendations

This resource offers self-defence training for taxi drivers and covers topics such as how to behave towards aggressive customers who may become violent. To avoid being assaulted by violent customers drivers are usually advised to act in a calm manner to defuse tension. As an extra safety measure, drivers should take payment by credit card instead of cash. Technical devices, e.g. CCTV and GPS-based emergency alarm systems, are recommended. See also example 24.

3.6 Risks linked with individual behaviour

3.6.1 Guidelines and recommendations

34. Taxi driving – belts save lives (Taxifahren – Gu(r)t und sicher)

Organisation: BGF – (Berufsgenossenschaft für Fahrzeughaltungen) (Trade association for vehicle owners)

Country: Germany

Type of organisation: Trade association

Resource type: Newsletter (SicherheitsPartner – SafetyPartner) of the BGF 02/2008

Reference/link: http://www.bg-verkehr.de/medien/sicherheitspartner_archiv/2008/sipa02_2008.pdf/at_download/file

(written by Heiner Heese, Renate Bantz)

The good practice recommendations

The BGF started a campaign to get more taxi drivers to use their seatbelts. This article gives further information about the seatbelt. It points out the importance of using the seatbelt and explains why it is not enough to rely on the airbag instead of using the seatbelt. It answers concerns on the part of drivers that the seatbelt could be a hindrance in case of an assault. The authors advise the drivers to use the seatbelt at all times as it can be a lifesaver when the car is involved in an accident. They say that it should at least be used on all low-risk journeys, such as driving a child to the hospital, a pregnant woman to the hospital, an elderly person to the retirement home or driving a well-known passenger to the airport. At the end of the article the authors recommend various training courses offered by the BGF, including one that enables them to experience the effect of not wearing a seatbelt in a driving simulator.

35. Driver fatigue and road accidents

Organisation: The Royal Society for the Prevention of Accidents (RoSPA)

Country: UK

Type of organisation: Safety NGO

Resource type: Website and leaflet

Reference/link:

<http://www.rosipa.com/roadsafety/adviceandinformation/driving/driverfatigue/default.aspx>

The good practice recommendations

Introduction

Driver fatigue is a serious problem resulting in many thousands of road accidents each year. Sleepiness reduces reaction time (a critical element of safe driving). It also reduces vigilance, alertness and concentration so that the ability to perform attention-based activities (such as driving) is impaired. The speed at which information is processed is reduced by sleepiness and so the quality of decision-making may also be affected.

It is clear that drivers are aware when they are feeling sleepy, and so make a conscious decision about whether to continue driving or to stop for a rest. It may be that those who persist in driving underestimate the risk of actually falling asleep while driving. Or it may be that some drivers choose to ignore the risks.

Young male drivers, truck drivers, company car drivers and shift workers are most at risk of falling asleep while driving. However, any driver travelling long distances or driving when tired is at risk of a sleep-related accident.

Recommendations

Employers should:

- Manage the safety of their employees who drive;
- Consider and implement the most suitable system of risk assessment and re-assessment for the road safety needs of the company and its employees;
- Choose the right vehicle and the safest specification for the needs of the job;
- Ensure that work practices, journey schedules, appointments and routes enable drivers to stay within the law;
- Provide sensible guidelines about driving and the use of the vehicles for all employees who may drive for the company.

Drivers should:

- Try to ensure they are well rested, and feeling fit and healthy (and not taking medication which contra-indicates using machinery), before starting long journeys;
- Plan the journey to include regular rest breaks (at least 15 minutes every two hours) and if necessary, plan an overnight stop;
- Avoid setting out on a long drive after having worked a full day;
- Avoid driving into the period when they would normally be falling asleep;
- Avoid driving in the small hours (between 2 am and 6 am) and take extra care when driving between 2 pm and 4 pm (especially after having eaten a meal or drunk any alcohol);
- If feeling sleepy during a journey, stop somewhere safe, take drinks containing caffeine and take a short nap.

36. Smoking has been banned in public transport vehicles since 1 September 2007

(Rauchverbot in öffentlichen Verkehrsmitteln gilt seit 1 September 2007)

Organisation: Taxi-Magazin Ventil, VENTIL MEDIA, Taxifachverlag + Werbung GbR, Lindberghstr. 20, D-80939 München

Country: Germany

Type of organisation: Commercial web-media internet site

Resource type: Web link

Reference/link: <http://www.taxipress.de/taxipress/artikel.php?id=297>

The good practice recommendations

This publication focuses on the importance of avoiding smoking in taxis. The well-known health risks of passive smoking are stressed, and information is given on recent legislation concerning the protection of non-smokers in public transport vehicles.

37. Keeping fit in the mobile workplace 2004/2005 – occupational fitness for taxi drivers

(Der mobile Arbeitsplatz und die Gesundheitsreform 2004/2005 – betriebliche Gesundheitsförderung für Taxler)

Organisation: Taxi-Magazin Ventil, VENTIL MEDIA, Taxifachverlag + Werbung GbR, Lindberghstr. 20, D-80939 München

Country: Germany

Type of organisation: Commercial web-media internet site

Resource type: Web link

Reference/link: http://www.shake-spear.de/_Aktuelles/_Kommentare/ventil3_2004_interview.html

The good practice recommendations

This publication recommends special fitness training for people such as taxi drivers, who are not able to join gyms or sports clubs because of the special needs of their occupation (e.g. shift work, long distances from workplace to sport centres). It is suggested that they use exercise equipment that is easy to handle and carry and does not need a lot of space to use, e.g. the shake spear[®], a swinging stick. It is claimed that this device is effective in exercising the muscles, and is beneficial to the cardiac system and indirectly mental health.

3.6.2 Training and tools

38. Dead tired? Not me! (Todmüde? Ohne mich!)

Organisation: Deutscher Verkehrssicherheits Rat (German Road Safety Council)

Country: Germany

Type of organisation: Non-profit safety association

Resource type: Web link

Reference/link: http://www.dvr.de/site.aspx?url=html/multimedia/cds_todmuede.htm&qu=Taxi

The good practice recommendations

This site presents a CD-ROM aimed to educate drivers about the dangers of falling asleep at the wheel. It includes interactive training and video information. The training lessons discuss typical reasons for fatigue to enable the CD-ROM user to recognise and to avoid those circumstances.

39. Awake at the wheel (Wach am Steuer)

Organisation: Berufsgenossenschaft für Fahrzeughaltung (BGF; social accident insurance body for transport industry) in cooperation with taxi insurance company

Country: Germany

Type of organisations: Statutory insurance body

Resource type: Web link

Reference/link: <http://www.bg-verkehr.de/>

The good practice recommendations

Web-based training to improve awareness of the dangers of driver fatigue. The participants are taught strategies to prevent tiredness while driving. This involves learning to recognise typical signs of fatigue: yawning, eyes tend to close, headache, mistakes during driving. Drivers are advised to stop immediately if they show signs of fatigue. They are also advised that coffee, fresh air and drugs are not effective in preventing fatigue. The organisation also offers special training for companies' safety inspectors to enable them to conduct in-house driver training.

40. Language courses for taxi drivers

Organisation: Regional Government of Brussels

Country: Belgium

Type of organisation: Government department

Resource type: Letter to taxi drivers

Reference/link: <http://www.bruxellesmobilite.irisnet.be/articles/taxi/>
<http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/>

The good practice recommendations

Brussels' government offers language courses especially for taxi drivers.

The idea is to improve communication between customers and drivers. Language tuition is given in the form of role play which puts the participants in 'real' circumstances reflecting the daily practice of taxi drivers.

3.7 Working conditions for taxi drivers

41. Long working hours of chauffeurs

Organisation: GMB & Brake

Country: UK

Type of organisation: GMB: Trade Union; Brake: Road safety charity

Resource type: Survey

Reference/link: <http://www.taxi-driver.co.uk/phpBB2/viewtopic.php?p=122758&sid=b0f2138561fc3c2db94bb7a4b0cf72c8>

The good practice recommendations

The purpose of this survey was to raise employers' and drivers' awareness of the dangers of sleep deprivation and inadequate rest periods.

Background

Tiredness is considered to be a significant factor in causing road accidents. Within the chauffeur industry many drivers are asked to work extremely long hours and so may be putting themselves, their passengers and other road users at risk. GMB and Brake conducted a survey of chauffeurs as part of an enquiry into the long working hour culture within the chauffeur industry.

The key findings of this survey were as follows:

- 50% of the drivers interviewed work an average of 70 hours or more a week.
- 60% of drivers interviewed have experienced some form of coercion from their subcontractor or 'employer' to work more hours weekly than they should.
- 100% of the drivers who felt victimised also felt that if they refused to undertake a job, even if it was at the end of a shift and they were tired, there would be repercussions. They felt they would be further victimised by their employers who would retaliate by discriminating against them in the type of work they were given.
- Nearly 60% of the drivers interviewed said the average length of their workday was 11 hours or more. This is a clear indication that they are not getting enough rest periods.
- Drivers made little connection between the length of the working day and the inadequacy of the rest periods.
- Although drivers are not getting enough rest between shifts, many are not aware of the danger that lack of sleep and adequate rest poses to them, their passengers and other road users.

The survey also found that there was a widespread misconception that accumulating rest periods throughout the working week would compensate for the inadequate rest taken after individual long shifts. There was also no evidence of knowledge or training on the increased risk of accidents created by lack of sleep or inadequate rest periods.

Recommendations

Employers and drivers need to be made more aware of the risks associated with driving whilst fatigued. Suitable rest breaks should be scheduled into the working day. The application of the Working Time Regulations to the chauffeur industry and the end of the opt-out is also recommended.

42. How long may a taxi driver work? Are there recording devices which document work shift duration (Wie lange darf ein Taxifahrer eigentlich arbeiten? Gibt es Fahrtenschreiber oder ähnliches?)

Organisation: taxi.de, AKYA Arts & Services Ltd., Schwabacher Str. 71a, D-90763 Fürth

Country: Germany

Type of organisation: Commercial web-media internet site

Resource type: Web link

Reference/link: <http://www.taxi.de/informationen.php?id=14>

The good practice recommendations

The publication gives information on the regulatory framework for working hours and the required duration of breaks for taxi drivers. The legislation recommends that employed drivers should not work for more than an average of ten hours per day. However, the mean shift duration of the previous 24 weeks is not allowed to exceed eight hours. The usual break should be 30 minutes for a shift of between six and nine hours. For shifts lasting more than nine hours breaks should be at least 45 minutes. For shifts lasting twelve hours, a minimum of two breaks of 60 minutes each are required.

Drivers must be given at least 11 hours off in between shifts. Employers are obliged to document the length of drivers' shifts, as well as the breaks they take.

43. Health and safety service TÜV-Süd – medical checkups for road transport employees (TÜV-Süd – Profi-Check für einen sicheren Arbeitsplatz hinterm Steuer)

Organisation: Taxi-Magazin Ventil, VENTIL MEDIA, Taxifachverlag + Werbung GbR, Lindberghstr. 20, D-80939 München

Country: Germany

Type of organisation: Commercial web-media internet site

Resource type: Web link

Reference/link: <http://www.taxipress.de/taxipress/artikel.php?id=290>

The good practice recommendations

Based on the requirements of the German legislation concerning licences for drivers of public transport vehicles (bus, taxi), the health and safety service, this site recommends medical examinations, including fitness and vision tests.

44. Social legislation

Organisation: Regional Government of Brussels

Country: Belgium

Type of organisation: Government department

Resource type: Guidance leaflet

Reference/link: <http://www.bruxellesmobilite.irisnet.be/articles/taxi/>
<http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/>

The good practice recommendations

Because the social legislation is quite complicated, the Regional Government of Brussels has produced a leaflet especially for taxi drivers and the management of taxi companies. The leaflet gives information about the basic principles of the legislation.

4 Good practice guidelines and recommendations (non-EU)

4.1 *Miscellaneous risks*

45. Your guide to a safer workplace

Organisation: Victorian Taxi Directorate Department of Infrastructure

Country: Australia

Type of organisation: Government department

Resource type: Booklet

Reference/link: <http://www.taxi-library.org/victoria-safety-guide.pdf>

The good practice recommendations

This information booklet has been put together by the Victorian Taxi Directorate with the assistance of the Victorian Taxi Association, Victorian Taxi Drivers Association, Victoria Police, Victorian WorkCover Authority and taxi depots, to alert taxi drivers of the potential dangers of working in the industry and what they can do to maintain safety for themselves and their passengers.

The booklet contains seven chapters:

- *'Know the risk'* explains why a taxi driver faces many personal risks and which situations and shifts are more risky than others.
- *'Reduce the risks'* gives advice on how to deal with difficult or aggressive passengers, how to avoid assaults, robberies and fare evasions. It points out the importance of knowing the area one is working in and it explains the effect that the drivers' attitude and behaviour has on the passenger.
- *'Look after yourself'* gives an overview of things the driver should consider to take care of himself and the passenger, e.g. eat and drink well, exercise regularly, get plenty of rest. It also includes a reminder that it is illegal to drive under the influence of drugs and alcohol.
- *'Know your security equipment and procedures'* lists the different security systems available – security cameras, M13 alarm and protective screens. It describes how they work, their advantages and how to use them.
- *'What to do after an incident'* gives an overview of the steps that have to be taken after an incident and also what to do if the driver is injured and is unable to work for a while.
- There is a checklist at the end of the booklet, where the driver can check if he is a 'safety-aware driver ready to start his shift'. This list is a summary of all the prior chapters.

Finally there is contact information for organisations that can provide further information and answer specific questions.

4.2 *Physical risks such as vibrations, manual load handling and sitting for long periods*

46. Lifting and moving without injury – Guidance for Taxi drivers

Organisation: New South Wales (NSW) Taxi Council

Country: Australia

Type of organisation: NGO

Resource type: Trade magazine

Reference/link: http://www.nswtaxi.org.au/public/meter/Meter%20editions/METER_June_07.pdf

The good practice recommendations

Introduction

The NSW Taxi Council publishes a magazine that reaches 35,000 owners, operators and drivers within the Australian taxi industry. The June / July 2007 issues included a quiz that drivers could complete to assess their knowledge regarding safe manual handling.

Recommendations

The quiz questionnaire raised awareness of the following points:

- Keep items within easy reach to avoid twisting and leaning;
- Prior to lifting, assess the weight of the load and check for obstacles such as kerbs, etc;
- Use safe lifting techniques, i.e. bend at the knees, keep back straight and try not to twist or stoop. Lift items in a smooth and controlled manner;
- Regularly take a break from the driver's seat and perform stretching exercises;
- Maintain a good neutral posture whilst driving.

The NSW Taxi Council also provides drivers with safety stickers giving reminders on how to lift heavy luggage.

47. Reducing back injuries for drivers

Organisation: WorkcoverSA – Government of South Australia

Country: Australia

Type of organisation: Employer-funded statutory authority

Resource type: Fact sheet

Reference/link:

<http://www.safework.sa.gov.au/contentPages/docs/resHealthyWorkplaceDrivers.pdf>

The good practice recommendations

Introduction

This fact sheet is aimed at small businesses and is relevant for employees involved in driving vehicles, including truck, bus, courier and taxi drivers. The fact sheet gives guidance on minimising the risk of back injury when driving and performing manual handling activities. It also gives recommendations for the correct driving position and includes 'three steps to prevent back injuries', which are reproduced below.

Recommendations

STEP 1

Identify risk factors in the workplace likely to result in manual handling injuries by reviewing work injury reports, talking to employees and observing tasks being done.

STEP 2

Assess the risk for each hazard you identified and whether it may result in an injury. This will help you prioritise the hazards in order of risk and plan action.

STEP 3

Take action to eliminate or minimise the risks. Job re-design is the preferred option. No one single option will necessarily reduce the risk. A combination of different control options may be needed.

4.3 *Psychosocial risks linked with stress and violence*

48. Violence towards taxi drivers

Organisation: US Occupational Safety and Health Administration

Country: USA

Type of organisation: Government enforcement body

Resource type: Fact sheet

Reference/link: <http://www.taxi-library.org/safety.htm>

The good practice recommendations

Introduction

Taxi and livery drivers¹¹ are 60 times more likely than other workers to be murdered whilst doing their job, according to the US's National Institute for Occupational Safety and Health (NIOSH).¹² Taxi and livery drivers are also among those with the highest rates of non-fatal assault (183.8 per 1,000) exceeded only by police (306.0 per 1,000) and private security guards (217.8 per 1,000).¹³

The US Occupational Safety and Health Administration (OSHA) is concerned about violence against taxi and livery drivers and issued a fact sheet in May 2000 to give drivers and their employers information that may help make their jobs safer. The fact sheet identifies risk factors that taxi and livery drivers face, along with a list of potential safety measures and recommendations that might help protect them. It also describes employer responsibilities and employee rights under the Occupational Safety and Health Act (OSH Act).¹⁴

A number of factors put drivers at risk, as identified by NIOSH:

- Working with the public
- Working with cash
- Working alone
- Working at night
- Working in high-crime areas

Recommendations

Potential safety measures include, but are not limited to, the following items:

- Automatic vehicle location or global positioning systems (GPS), to locate drivers in distress;
- Caller ID to help trace location of fares;
- First aid kits for use in emergencies;
- In-car surveillance cameras to aid in apprehending perpetrators;
- Partitions or shields to protect drivers from would-be perpetrators – must be used properly to work effectively;
- Protocol with police – owners and police need to track high-crime locations and perpetrator profiles;
- Radios to communicate in case of emergency e.g. 'open mike switch';
- Safety training to teach drivers, dispatchers and company owners protective measures;
- Silent alarms to alert others in the event of danger e.g., 'bandit lights';
- Use of debit/credit cards i.e., cashless fare systems to discourage robbers.

5 Conclusions



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Due to their profession, taxi drivers and chauffeurs are exposed to certain risks. The main risks are physical risks (risks linked to road safety, vibrations, manual handling of loads, long sitting position), chemical and biological risks (risks linked to urban pollution), psychosocial risks caused by stress and violence, and risks due to individual behaviour. This report presents examples of good practice guidelines, risk prevention recommendations and intervention examples in order to give an overview of good practice material

on the protection of taxi drivers and chauffeurs. Some good practice presented in the report developed a range of guidelines and recommendations covering a number of different risks. For example, two checklists were found that related to ergonomics (including the safe movement of people with a disability), temperature and air quality in the car, accidents, psychosocial working environment, etc. Along with the checklists was some good practice advice for overcoming the various risks. Most good practice guidelines are, however, directed towards one type of risk. The good practice that addresses the avoidance of physical risks mainly concerns the manual handling of wheelchairs and road safety. The focus of much information is on the risks linked with violence. Guidelines and recommendations are given about how to behave as a driver towards aggressive customers, how one can support colleagues who are victims of violence, how to avoid robbery, etc. There is also a great deal of information about technical equipment such as CCTV, GPS and alarm systems, to make the taxi safer. Attention is also given to risks linked to individual behaviour, such as seatbelt wearing, how to recognise the signs of fatigue, etc.

6 Table with overview of the material

An * indicates that the authors considered the resource to be particularly useful.

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
3. Good practice guidelines and recommendations (EU)					
3.1 Guides covering various risks					
3.1.1 Checklists					
1	Checklist for carrying out risk assessment for taxi drivers and transport of people with a disability	BAR – transport og engross (working environment council)	DK	Checklist dealing with taxi safety and transport of people with a disability	http://www.bartransport.dk/Files/Billeder/BAR%20Transport/pdf/apv_taxi.pdf
*2	Checklist for transport of passengers – taxi	Arbejdstilsynet, the Danish working environment authority (WEA)	DK	Checklist on risks relating to violence from the public and psychological problems	http://synkron.at.dk/graphics/at/pdf/checklist-er-apv/transport-taxi-apv.pdf
3.1.2 Guidelines and recommendations					
*3	Passenger transport - improving working life. (working environment guidelines no.17)	Arbejdstilsynet, the Danish working environment authority (WEA)	DK	A handbook with guidelines for different sectors. One guideline presents a model for risk assessment including one example from the taxi sector	http://www.at.dk/sw5779.asp
*4	Going further with your taxi (Verder met de taxi)	Taxi Social Fund	NL	Various measures were taken to decrease the risks at work, particularly those relating to physical load, stress at work and aggression and violence	http://www.sociaalfondstaxi.nl/
*5	Prevention (Preventie)	Taxi Social Fund	NL	Web page offering information on different prevention measures, e.g. on safe steering and preventing back injury	http://www.sociaalfondstaxi.nl/

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
6	Safe taxiing! (Taxi fahren – aber Sicher)	German Taxi and hired car association (Deutscher Taxi- und Mietwagenverband e. V.)	DE	A guideline covering protection against assault, road safety and driver health	http://www.taxiverband.net/aktuelles/Auszug%20SiBro.pdf
*7	Guide for prevention of occupational risks for taxi drivers	ENKEN Servicios de Prevencion S.L	ES	A guide with information on the risks taxi drivers are exposed to and that might cause occupational accidents and work-related diseases	http://www.enken.es/seguridad_datos.htm
8	The carefree package for ASD-customers (Das Sorglospaket für ASD-Kunden)	Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the road sector) in cooperation with taxi-vehicle insurance.	DE	An offer of several services in the field of health and safety	http://www.bg-verkehr.de/arbeitsmedizinischer-und-sicherheitstechnischer-dienst/leistungsspektrum/sorglospaket-und-info-flyer
9	Taxi Policy Plan 2005 – 2009	Regional Government of Brussels	BE	Policy plan regarding taxis	http://www.taxi.irisnet.be/docs/taxiplan_NL.pdf
3.1.3 Training					
10	Vocational Training and Working Environment in the Transport Sector – Taxi	TYA – the Vocational Training and Working Environment Council.	SE	Website with an offer of different courses of interest to taxi drivers (e.g. on special transport, ergonomics, menace and violence), brochures and handbooks	http://www.tya.se/tya/branschertaxi/omtaxi.asp

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
3.2 Physical risks e.g. vibrations, manual handling of loads and sitting for long periods					
3.2.1 Guidelines and recommendations					
11	Drivers' working environment in special transport (Chaufförernas arbetsmiljö inom färdtjänsten)	Swedish Work Environment Authority, WEA	SE	Website with information on systematic work environment management and MSDs, directed at drivers working in special transport	http://www.av.se/teman/transport/arbetsmiljoer/fardtjanst/
*12	Better backs initiative – Ergonomics assessment of the movement of wheelchair users by taxi drivers	HSE	UK	Report describing different risk factors for lower back pain and some recommendations how to avoid them (safe systems of work, training)	http://www.taxi-driver.co.uk/wheelchair.pdf
13	Manual handling, wheelchairs and transport	N/A	UK	Article which advocates a 'no lifting' policy – Taxis can be modified or carry equipment to assist with manual handling operations	http://www.ijtr.co.uk/cgi-bin/go.pl/library/article.cgi?uid=13945;article=IJTR_6_9_459_465
3.3 Road Safety					
3.3.1 Guidelines and recommendations					
14	Use of roads public transport	Regional Government of Brussels	BE	A leaflet explaining to taxi drivers how to use the roads dedicated to public transport in a correct manner	http://www.bruxellesmobilite.irisnet.be/articles/taxi/ http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/
*15	I've got the right attitude	G7 Taxi Service	FR	A document describing safe behaviour for taxi drivers	http://www.g7taxis.fr/

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
3.3.2 Training					
16	Safety training for drivers (Fahrsicherheitstraining)	German Taxi and hired car association	DE	Training to improve driving of taxi drivers and to expand their knowledge about work and health care	http://www.taxiverband.net/information/gewerbeundpolitik/ar_in_24_06.htm
17	Training for safe driving	Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the road sector)	DE	Standardised safe driving training offered to taxi drivers to reduce compensation payouts for accident and injury	http://www.bg-verkehr.de/
18	Free defensive driving course for taxi drivers	Regional Government of Brussels	BE	Free defensive driving course for taxi drivers	http://www.bruxellesmobilite.irisnet.be/articles/taxi/ http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/
3.5 Psychosocial risks linked with violence and stress					
3.5.1 Guidelines and recommendations					
*19	Alarm systems and psychological first aid in the taxi industry. A handbook about building up a crisis response group.	BAR – transport og engross (working environment council)	DK	A handbook to help taxi companies create a crisis response group	http://www.bartransport.dk/Files/Billeder/BAR%20Transport/pdf/Alarmsystemer.pdf
20	Safe taxi driving: a leaflet for drivers (TAXI fahren aber sicher – Sicherheitsbrief für Taxifahrer)	Regional (Schleswig-Holstein) taxi and hired car association and the Flensburg police	DE	Leaflet with eight rules on how to work safely; sign for taxi indicating that large amounts of cash are not carried	http://www.taxi-mietwagengewerbesh.de/Praevention/Taxi.pdf

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
21	How to ensure your personal safety as taxi driver	Workplace Safety Advice	UK	Web page describing the major risks faced by a taxi driver especially relating to violence)	http://www.workplacesafetyadvice.co.uk/how-ensure-your-personal-safety-taxi-driver.html
*22	Violence towards taxi drivers	SPLT and Radio Taxis	UK	Different recommendations on how to deal with violence (training, link with police, communication between drivers, work environment and equipment)	http://www.hse.gov.uk/violence/hslcasestudies/taxi.htm
*23	Safety recommendations for taxi drivers	Vienna police	AT	Brochure with recommendations on how to prevent robbery and violence	http://portal.wko.at/wk/dok_detail_file.wk?AngID=1&DocID=539682&StID=260308
*24	'Reportage 24' – improved safety in taxis	Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the road sector)	DE	CD-ROM documenting a taxi driver's night shift in Berlin	http://www.bg-verkehr.de/arbeitssicherheit-und-gesundheitsschutz/brancheninfos/taxi/medien-informationen-taxi
*25	Toolkit for taxi safety	Taxi Social Fund	NL	A web page offering different instruments to deal with aggression against taxi drivers	http://www.humatix.nl/toolkitveiligidetaxi/
3.5.2 Information about safety systems					
26	Taxi driver safety in Germany	Dortmund police and representatives of the taxi industry	DE	Conference report with information on different safety systems available for taxi drivers	http://www.taxi-library.org/index.htm
*27	SMS-Information system makes Vienna's taxi drivers safer (SMS-Info-System bringt mehr Sicherheit für Wiens Taxifahrer)	Vienna Chamber of Commerce, Ministry for Internal Affairs, Austrian police	AT	An SMS information system has been introduced to protect taxi drivers more effectively against robbery and violence	http://www.brigittejank.at/static/janksite/files/PK_SMSInfoTaxi.pdf

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
28	Taxi drivers get mugged and robbed every day (Raubüberfälle auf Taxifahrerinnen und Taxifahrer gehören leider weiterhin zur Tagesordnung)	German Taxi Association (TAXIstiftung Deutschland)	DE	Web link with overview of prevention measures against violence	http://www.bzp.org/rundumstaxi/rut_stiftung.htm
29	Safety technology for taxis and hire cars (Sicherheitstechnik für Taxis und Mietwagen)	ENAIKOON GmbH	DE	Commercial offer of GPS-based support to prevent violence against taxi drivers	http://www.enaikoon.com/en/
30	Safety for taxi drivers	Tacho Mewes	DE	Commercial offer of GPS-based emergency alarm systems as well as video recording	http://www.tachomewes.de/taxi/taxisicherheit.htm
31	Individual safety or safe individual data? (Sicherheit oder Datenschutz?)	taxi-heute	DE	Web link that recommends the installation of video cameras to reduce the amount of violence faced by taxi drivers	http://www.taxi-heute.de/termine/thema_einzel.php?id=73
32	In-Car video camera	Vartax Personenvervoer Amsterdam	NL	A camera is installed into the taxi, in case of a robbery the car has to go to a police station where a technician of the supplier will hook up a read out unit with printer and after entering a special police code can browse through all the pictures	http://www.taxi-library.org/rene.htm
3.5.3 Training					
33	Safety training for taxi drivers	Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the road transport sector).	DE	Self-defence training taxi drivers	http://www.taxiinnung.org/Seminar.60.0.html?&0=

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
3.6 Risks linked with individual behaviour					
3.6.1 Guidelines and recommendations					
34	Taxi driving – belts save lives (Taxifahren – Gu(r)t und sicher)	Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the road sector)	DE	Article in newsletter (Sicherheits Partner 02/2008) aimed at encouraging more taxi drivers to use seatbelts	http://www.bg-verkehr.de/medien/sicherheitspartner-archiv/2008/sipa02_2008.pdf/at_download/file
35	Driver fatigue and road accidents	The Royal Society for the Prevention of Accidents (RoSPA)	UK	Website and leaflet with recommendations for employers and taxi drivers on how to avoid accidents due to fatigue	http://www.rospa.com/roadsafety/adviceandinformation/driving/driverfatigue/default.aspx
36	Smoking has been banned in public transport vehicles since 1 September 2007 (Rauchverbot in öffentlichen Verkehrsmitteln gilt seit 1 September 2007)	Taxi-Magazin Ventil	DE	Web link recommending the complete avoidance of tobacco smoke at the taxi driver's workplace	http://www.taxipress.de/taxipress/artikel.php?id=297
37	Keeping fit in the mobile workplace 2004/2005 – occupational fitness for taxi drivers (Der mobile Arbeitsplatz und die Gesundheitsreform 2004/2005 – betriebliche Gesundheitsförderung für Taxler)	Taxi-Magazin Ventil	DE	Web link with special fitness training for taxi drivers who are unable to take advantage of gyms/organised sports	http://www.shake-spear.de/Aktuelles/Kommentare/ventil3_2004_interview.html

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
3.6.2 Training and tools					
*38	Dead tired? Not me! (Todmüde? Ohne mich!)	German Safety Council (Deutscher Verkehrssicherheits Rat)	DE	CD-ROM to increase awareness of the dangers of falling asleep at the wheel, with interactive training and video information	http://www.dvr.de/site.aspx?url=html/multi-media/cds_todmuede.htm&qu=Taxi
39	Awake at the wheel (Wach am Steuer)	Berufsgenossenschaft für Fahrzeughaltung (BGF; Social accident insurance in the road sector)	DE	Training to improve driver awareness of the dangers of fatigue	http://www.bg-verkehr.de/
40	Language courses for taxi drivers	Regional Government of Brussels	BE	Language courses especially for taxi drivers	http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/
3.7 Working conditions for taxi drivers					
41	Long working hours of chauffeurs	GMB & Brake	UK	Survey to make employers and drivers more aware of the risks associated with driving whilst tired	http://www.taxi-driver.co.uk/phpBB2/viewtopic.php?p=122758&sid=b0f2138561fc3c2db94bb7a4b0cf72c8
42	How long may a taxi driver work? Documenting shift duration (Wie lange darf ein Taxifahrer eigentlich arbeiten? Gibt es Fahrtenschreiber oder ähnliches?)	taxi.de	DE	Web link with information on the regulations governing shift duration and the number and length of breaks for taxi drivers	http://www.taxi.de/informationen.php?id=14
43	Health and safety service TÜV-Süd – medical checkups for road transport employees (TÜV-Süd – Profi-Check für einen sicheren Arbeitsplatz hinterm Steuer)	Taxi-Magazin Ventil	DE	Web link recommending medical examinations including fitness and vision tests	http://www.taxipress.de/taxipress/artikel.php?id=290

Nr.	Title	Organisation	Country	Initiative + Theme	Reference/link
44	Social legislation	Regional Government of Brussels	BE	A guidance leaflet explaining the basic principles of social legislation especially for taxi companies	http://www.bruxellesmobilite.irisnet.be/articles/taxi/ http://www.bruxellesmobilite.irisnet.be/content/professionnels-et-ecoles/
4. Good practice guidelines and recommendations (non-EU)					
*45	Your guide to a safer workplace	Victorian Taxi Directorate Department of Infrastructure	AU	Booklet describing what a taxi driver can do to reduce the risk of violence and aggression	http://www.taxi-library.org/victoria-safety-guide.pdf
46	Lifting and moving without injury – Guidance for taxi drivers	NSW Taxi Council	AU	Publication with recommendations on safe manual handling	http://www.nswtaxi.org.au/public/meter/Meter%20editions/METER_June_07.pdf
47	Reducing back injuries for drivers	WorkcoverSA – Government of South Australia	AU	Fact sheet giving guidance on minimising the risk of back injury when driving and performing manual handling activities	http://www.safework.sa.gov.au/contentPages/docs/resHealthyWorkplaceDrivers.pdf
48	Violence towards taxi drivers	US Occupational Safety and Health Administration	US	Fact sheet describing what a taxi driver can do to reduce the risk of violence and aggression	http://www.taxilibrary.org/safety.htm

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- [3] Thierry S., Chouanière D., Aubry C., 'Conduite et Santé. Une revue de littérature', Documents pour le Médecin du Travail, n° 113, 1er trimestre 2008, INRS, 2008, p. 47
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