

# THE BARIATRIC JOURNEY IN AUSTRALIA: FIRE CASE STUDY

**MARCH 2009**



**Australian Government**  
**Australian Safety and  
Compensation Council**

## **The Bariatric Journey in Australia: Fire Case Study**

### **Acknowledgement**

This review was commissioned by the Department of Education, Employment & Workplace Relations (DEEWR), Office of the Australian Safety & Compensation Council (ASCC). The review was undertaken by VIOSH, University of Ballarat's Dr Steve Cowley and Ms Susan Leggett, who provided this research report.

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ISBN 978 0 642 32789 5

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## **The Bariatric Journey in Australia: Fire Case Study**

There is an increasing awareness of the risks carers of morbidly obese (bariatric) patients face during their transport and movement from home to the health care institution and then home again, or potentially to the mortuary and then to a funeral. This transport and movement has been termed "the bariatric journey" (Hignett et al 2007).

In Australia in 2004-05, some 41% of adult males and 25% of females were classified as overweight (Body Mass Index [BMI] of between 25 and 30) and 18% of males and 17% of females were classified as obese (Body Mass Index over 30). Increases have been recorded in both the overweight and obese groups across all age groups in recent years.

Morbidly obese patients are over represented in their use of healthcare. Further, there is a high mortality rate for these patients because of the patients' delay in accessing treatment. It is possible that this delay may be in part due to there being limited capacity within institutions to manage care.

The bariatric patient's journey within the health care system commences with transport from the patient's home by ambulance. Often other services, including the fire service are called on to assist in the movement of the patient from the home to the ambulance for transport to hospital. On arrival at the hospital as an out-patient the journey continues through to specialist departments such as radiography, or through to a ward as an in-patient and subsequently to specialist departments, or potentially to theatre. On completion of treatment, the journey resumes with the transfer by ambulance to home or another institution. If treatment is unsuccessful, the deceased is transported via the mortuary to a funeral home and finally to the funeral service.

Bariatric patients generally have limited mobility and decreased lung capacity because of the weight of the chest wall. This reduces the patient's ability to assist during movement. Problems other than handling their weight arise because patient handling equipment, buildings and facilities are not designed for large body masses and shapes. Therefore, there are special demands placed upon carers throughout this journey with regard to patient lifting and movement.

The bariatric patient handling case studies aim to illustrate the problems that are encountered and the solutions that have been developed by health care providers and others to assist the handling of bariatric people during their journey within the health care system in Australia.

This case study describes the approach taken by the Melbourne Metropolitan Fire Brigade (MFB), which is often called on to assist other organisations within the bariatric journey. The MFB seeks to manage the increasing demands for bariatric patient movement, while simultaneously reducing the risk of injury to fire fighters.

This case study is part of a project funded by the Australian Safety and Compensation Council (ASCC) in 2008. The research consists of a literature review and focus groups of personnel involved in the transport of bariatric patients. The full report of the work can be accessed via the ASCC web site at [www.ascc.gov.au](http://www.ascc.gov.au).

## **Metropolitan Fire Brigade (MFB)**

### ***Introduction***

The MFB is a community safety organisation providing protection from fire and other emergencies in the Melbourne metropolitan area. Emergency response activities include attendance at fires, workplace incidents (involving, for example, hazardous materials, boilers), hazardous spills and rescue (from, for example, road crashes). The MFB also provides emergency medical response under the First Responder program, including defibrillation, cardiopulmonary resuscitation (CPR) and oxygen during cardiac arrest situations, and aims to preserve life until paramedical support can attend. Community education programs provide information to reduce the incidence and consequence of fire and other emergencies.

Three million people and in excess of \$200 billion of assets and infrastructure over 1,000 square kilometres (incorporating Melbourne's central business district, its inner and middle suburbs and part of Port Phillip Bay) are served and protected by the MFB. It employs approximately 200 corporate and technical staff and 1,700 trained operational staff, who are dispersed through 47 stations with a fleet of approximately 120 appliances, five of which are heavy rescue appliances.

The risks posed by MFB attendance at jobs involving bariatric patients has led to a review of the operational procedures in place for attendance at these types of calls. This case study describes the operational procedures implemented to reduce unnecessary risk to fire fighters and the community.

## **The MFB policy and procedures for attending calls requiring manual handling of bariatric persons**

### ***Overview***

The fire service's core business activities are associated with emergency response. Among fire service rescue calls, many require a rescue vehicle to attend to support extrication from a crashed vehicle. Although 50-60% of injuries experienced by employees are associated with manual handling, injuries as a result of an emergency "snatch and grab" have not been prolific. In these instances the need to preserve life through rapid extrication or evacuation is the priority. On some occasions, "snatch and grab" may involve bariatric patients.

The fire service also provides first response to medical emergencies because the location of stations enables rapid response to all parts of Melbourne. In some rural areas as well as the metropolitan centre, road crash rescue duties and other forms of rescue also fall to the fire service.

### ***Issues associated with current role in assisting lifting***

Fire services do not as a rule attend to large numbers of bariatric people; however, they periodically receive emergency medical response calls or calls to assist paramedics, funeral directors and contractors of the coroner's office with lifting. The work environment is often a residential dwelling designed for ambulant people and movement of *any* person who is not ambulant is complex and challenging in regard to control of risk to staff. The complexities associated with the movement of bariatric patients in the uncontrolled environment of the home increases the risk of manual handling injury. At the time of the call for assistance by fire fighters the patient characteristics, in particular weight, may not be known.

The home environment presents fire fighters with many challenges. Significant and common issues are staircases, particularly spiral staircases, which make patient retrieval difficult under any circumstances. Where stretchers or other carrying devices are needed, turns in the staircase limit how people can provide assistance and how many people can assist at any one time. The patient's furniture and personal effects can limit movement and preclude equipment use. Homes of collectors and hoarders can be the most difficult spaces to work in.

Patients are commonly found unconscious in the restricted space of a toilet, sometimes between the toilet pan and the wall and sometimes wedged against the door.

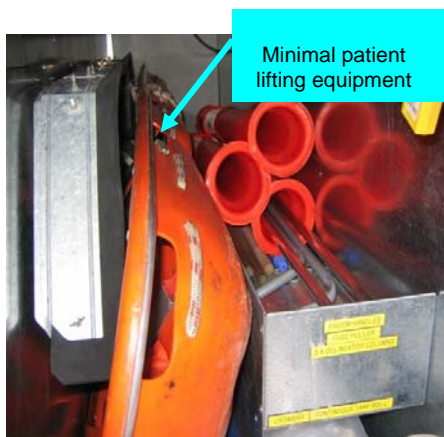
This case study describes a particular approach that has been taken by Melbourne Metropolitan Fire Brigade, to manage the increasing demands for bariatric patient movement and to simultaneously reduce the risk of injury to fire fighters.

### ***Equipment available to aid lifting***

Emergency medical response is provided by fire fighters who respond on the fire appliance designated for that call.



These appliances are not designed for and do not have the space for any form of patient transport or patient transport equipment. In situations where the fire brigade is required to lift and move patients to ambulances, the paramedic's equipment is used.



Equipment that aids patient movement is only available on rescue units, five of which are distributed throughout the metropolitan area. This equipment includes a Paraguard stretcher and its associated sling straps and a Ferno Washington stretcher for rescue situations. Much of this equipment would not be suitable for the movement of bariatric patients.

### ***Impact of traditional perceptions of fire fighters***

Fire services in Australia have a long history of helping the community beyond their emergency service roles. This, together with images of fire fighters braving heights on ladders to rescue animals and children,

creates a stereotype of fire fighters as strong people who are always willing to help in any situation.

It is now evident that fire service crews are occasionally being engaged as “hired help” at scenes where lifting is required. In organisations where No Lifting policies have not been correctly implemented, or where personnel have not received adequate training in its operation, the fire service may be called for assistance.

The MFB has amended the existing operational procedure to manage calls for assistance from other emergency services (excluding Emergency Medical Response calls).

***A different approach to the provision of lifting assistance (including for bariatric persons)***

The new procedure employed by MFB begins at the point of receiving the call at the emergency communications centre was implemented.

***The procedure***

Prior to the amendment of the procedure, MFB attendance to assist with emergency patient welfare was at the request of the MAS Duty Team Manager. Such a call required the fire appliance to travel in emergency mode at higher speeds and under lights and sirens through the city or suburbs. This mode of operation was undesirable from two points of view; firstly it poses a risk to the crew and the public on the road and secondly, it made an appliance unavailable for other emergencies.

It became apparent that crews were on occasions attending scenes under emergency driving conditions where this was not required. Thus it was decided that taking time to confirm the nature of a request for assistance was justified where it was obvious that the call was not related to a life critical situation. This enables collection of information about the situation at the scene and an assessment of whether or not assistance will be provided.

A change to procedures on receipt of the calls for assistance meant that instead of automatically responding fire crews to the incident, the Fire Services Communications Controller, (FSCC) in consultation with the on shift Commander Operations will decide, based on a range of details, whether or not the crew will attend.

These details might include information received from ambulance crews on site, or other incident information such as the type of incident, the environmental conditions and so forth.

***Future directions for the procedure***

The procedure has only been operating a short time and in that time some minor limitations have arisen. Occasionally, some calls which should be managed as per the above procedure are slipping through the



process and are being transferred directly to the station crew, who will arrive on scene and be asked to provide lifting rather than emergency assistance. Ongoing review of the process is being undertaken to ensure that the number of calls slipping through to stations are vastly reduced.

In addition to this, at the time of writing, meetings with key personnel are being planned in order to develop a set of criteria to guide both the communications staff and the Senior Officers in their decision making.

### ***Conclusion***

The revised procedure should ensure that a more structured and consistent response to requests for assistance from other agencies is achieved. This will reduce manual handling risks to fire fighters. In addition, resources will be more appropriately available for emergency response and risk to the public resulting from attending non-emergencies under emergency driving conditions will be reduced.