A tool for the evaluation of slaughter horse welfare during unloading

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Abstract

This study aimed to develop a scientific and practical tool to be used to assess horse welfare after commercial transport over long journeys. A set of physical, behavioural and environmental measures was selected, covering welfare aspects of both transport and unloading procedures. The protocol was field-tested on 51 intra-EU commercial transports arriving at different sites in Italy. Univariate analysis was implemented to look for associations between the input variables (environmental hazards potentially affecting the animal well-being during long transports) and the outcome variables (direct evaluation of the animal condition). No severe welfare impairments were recorded (ie dead on arrival, severe injuries, non-ambulatory animals), while milder ones were more frequent at unloading (eg slipping: 36.7%, reluctance to move: 9.6%). Correlations emerged between ramp slope and falling; type of ramp floor and slipping; fast gait and the presence of gaps between the ramp and the floor. The horses’ behaviour was also related to the type of handling procedure used. The measures were repeatable and practical to apply and score during real-time unloading. This work provides a sound basis for a new and practical welfare assessment tool for horses travelling over long journeys. Careful and constant application of this protocol would provide stakeholders with the opportunity to track and monitor changes in the industry over time, as well as to identify high risk areas in transport routines.

Keywords: animal welfare, long journey, slaughter horse, transport, welfare assessment, welfare indicators

Introduction

Horse meat consumption, although declining over the last decade, is still significant in several European Union (EU) countries, with a considerable amount of consumption in Italy where nearly 100,000 horses were slaughtered in 2010 (Leadon 2012). Since the national production of slaughter horses is not sufficient to satisfy the market requirements (Mughini Gras et al 2011) and there is strong demand for live horses as opposed to carcases (Marlin et al 2011), a large number of live horses are transported to Italian slaughter-houses every year. More than 64,000 horses were transported to Italy according to the 2012 annual report on the protection of animals during transport (Italian Ministry of Health 2013), the vast majority of these for slaughtering purposes. Due to the distance between origin (mainly Poland, France and Spain) and market (Italy) these horses are often subject to long journeys (Marlin et al 2011). Research by Gebresenbet et al (2010) revealed that in 2009 more than 60% of horses transported across the EU were travelling for more than 8 h and about 20% of them for more than 24 h.

Transported horses can be subjected to a wide range of stressors, including isolation, forced close proximity to unfamiliar or aggressive horses, novel or threatening surroundings, exposure to new pathogens, forced adoption of an abnormal posture, extreme temperature and changing climate zones, water and feed deprivation etc, all potentially resulting in health and welfare impairments (Friend 2001). Furthermore, horses may injure themselves before and following transport due to falling on the ramp or whilst climbing it and entering the vehicle (Weeks et al 2012).

The Council Regulation (EC) 1/2005 (European Council 2004) on the protection of animals during transport provides for special requirements for all travel lasting more than 8 h (‘long journeys’). These requirements aim to minimise possible negative impacts of transport on the welfare of transported animals (Nielsen et al 2011). Despite the legislative effort, animal welfare organisations continue to report poor welfare conditions for horses transported across the EU for slaughtering purposes, giving rise to public concern for slaughter horse welfare (Garcés et al 2008; Gavà et al 2008; Nielsen et al 2011; Leadon 2012). These conditions were confirmed in a study by Marlin et al (2011), who assessed several commercial international transports of slaughter horses to Italy which highlighted several cases of poor welfare among those animals (eg