

Medical transportation – loss scenarios and mitigation strategies

By: Mike Szczygiel



Table of contents

About Markel's Risk Solution Services team	2
Backing scenario	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8

About Markel's Risk Solution Services team

Risk Solution Services provides technical insight related to existing and potential insured risk at Markel. The team partners with our customers, claims, and underwriters to educate on both current and future risk trends and supports our clients with a broad offering of risk management solutions.

E-mail our team at riskolutions@markel.com.



This document is intended for general information purposes only, and should not be construed as advice or opinions on any specific facts or circumstances. The content of this document is made available on an "as is" basis, without warranty of any kind. This document can't be assumed to contain every acceptable safety and compliance procedures or that additional procedures might not be appropriate under the circumstances. Markel does not guarantee that this information is or can be relied on for compliance with any law or regulation, assurance against preventable losses, or freedom from legal liability. This publication is not intended to be legal, underwriting, or any other type of professional advice. Persons requiring advice should consult an independent adviser. Markel does not guarantee any particular outcome and makes no commitment to update any information herein, or remove any items that are no longer accurate or complete. Furthermore, Markel does not assume any liability to any person or organization for loss of damage caused by or resulting from any reliance placed on that content.

*Markel Specialty is a business division of Markel Service, Incorporated, the underwriting manager for the Markel affiliated insurance companies.

© 2020 Markel Service, Incorporated. All rights reserved.

Table of contents

About Markel's Risk Solution Services team	2
Backing scenario	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8



Best practices can be discovered through experience, near misses, and lessons from others. The following context is offered to demonstrate possible situations and provide actionable items for your medical transportation service. These scenarios, although altered to ensure anonymity, are based on actual claims that highlight the driving risks inherent to medical transportation. Mitigation strategies are offered as prompts to promote internal self-evaluation with the aim of uncovering needs for revision to existing loss control practices.

Backing scenario



While backing into a parking spot protected by an overhang at an extended care facility, a spotter raised his right hand and pointed upward in a circular motion. The driver observed the hand signal and continued backing. The driver hit the overhang and did extensive damage to both the overhang and the ambulance. The spotter was asked what the hand signal meant and how he learned it. He replied that it indicated an overhead obstruction and was of his design. When asked why he didn't stop the ambulance when it was obvious it would hit the overhang, he replied that he didn't know. The driver was asked what the hand signal meant, and she said she didn't know. When asked why she didn't stop, she replied she didn't know.

Mitigation strategies

- A spotter should be used, unless the clinical condition of the patient precludes it.
- Spotter placement and uniform hand signals should be taught as part of orientation and reviewed as part of safety continuing education. This is critical when part-time personnel from multiple agencies are employed.
- The use of cameras does not remove the need for a spotter.
- Spotters should wear reflective gloves at night.
- Backing should be avoided when possible.
- Compliance with the use of a spotter with uniform hand signals should be monitored by supervisory personnel.

Table of contents

About Markel's Risk Solution

Services team	2
Backing scenario.....	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8



Rear-end collision scenario

The driver of a sedan stopped at a stale yellow light and was rear-ended by an ambulance. The crew was returning to their station after a non-emergency run. The sedan was pushed into the intersection and struck by a tractor trailer. The sedan driver was killed.

Mitigation strategies

- Be aware of the rate of closure, which is the time it takes to close the distance between the ambulance and another vehicle.
- Remember that your ambulance can weigh more than other vehicles in the driving environment. It takes you longer to stop.
- Stopping time is the sum of human perception time, human reaction time, vehicle reaction time, and vehicle braking time.
- Use the four second rule (which is described in “Arrive Alive Do No Harm”) to determine a safe following distance. Look ahead and watch traffic patterns to give yourself enough time to react and give others adequate time to react to you. Always leave yourself an escape route.



Table of contents

About Markel's Risk Solution Services team	2
Backing scenario	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8

Lights and sirens scenario

An ambulance with lights and sirens (L&S) activated was traveling at 85 mph in a 60 mph speed zone in route to a hospital with a critical patient. Although the road was a four lane divided highway, there were intersections controlled by stop lights where access from residential areas was obtained. When the ambulance crested a hill, the driver saw a red light with vehicles stopped in all lanes. He moved to the right shoulder and proceeded through the intersection without clearing it. The driver of a vehicle approaching from the left proceeded through the green light and struck the ambulance in the patient compartment. The patient was thrown from the stretcher and died on impact. In fatal ambulance crashes, non-occupants are killed 12% of the time, occupants of other vehicles 63%, ambulance passengers 12%, and the ambulance driver 4%. (NAEMT Safety Course, 2015)



Mitigation strategies

- The standard is that with L&S activation, the speed limit should be exceeded by only 10 mph using due regard.
- Each lane of an intersection should be cleared.
- When an ambulance with L&S activation approaches a stop light controlled intersection with a red light and all lanes of traffic blocked, the ambulance should de-activate L&S, wait for the light to change, proceed with normal traffic flow, and re-activate L&S after clearing the intersection.
- The NHTSA recommendation is that 50% or fewer of scene responses should involve L&S activation.
- Scene to hospital transports should be accomplished with L&S activation not greater than 5%. Each scene to hospital transport with L&S activation should be reviewed to confirm clinical necessity.
- Some services have eliminated L&S activation entirely, because in their specific circumstance the risk exceeds the benefit.

Table of contents

About Markel's Risk Solution Services team	2
Backing scenario	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8

Patient handling scenario

On a blustery, cold winter day with ice on the pavement, a crew was loading a patient for a routine transfer for a non-urgent chest X-ray into the back of the ambulance. As an EMT began to slip, she stated that she attempted to get her partner's attention as the cot began to topple. The cot fell to its side. The patient remained attached to the cot, but her head hit the curb. The 86 year old sustained an epidural hematoma and died.

Mitigation strategies

- Both technicians should maintain complete situational awareness and communicate during each component of the patient movement task. All parties must remain attentive to the task at hand.
- Footwear should be considered as personal protective equipment. It should provide adequate cushion, support, and have tread appropriate to environmental conditions.
- Placement of the ambulance and the use of salt or sand should be matters of policy.
- Crews should be informed of weather conditions in real time.



Table of contents

About Markel's Risk Solution

Services team	2
Backing scenario.....	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8

Policy scenario

At the end of his 24-hour shift, a paramedic was returning to headquarters when he received a call to take a nursing home patient to a dialysis center. He became angry, sped through a round-about, and struck several pedestrians. One was killed. A bystander pushed a pregnant lady out of the way and received injuries that required the amputation of both of his legs. The owner of the ambulance service immediately terminated the paramedic and stated that paramedic violated long-established policies and procedures. A subpoena duces tecum was used to request the paramedic's personnel records. He was an eight year employee with stellar performance reviews. There was no mention of any assessment of his driving behaviors after his probationary period. Another subpoena was used to acquire 10% of personnel records. None of them revealed any determination of compliance with driving policies. The case was deemed indefensible and resulted in a huge settlement.



Mitigation strategies

- 24-hour shifts should be used only after careful consideration.
- A fatigue policy should be in place that limits the number of consecutive hours worked, specifies the maximum number of hours works in a seven day period, and permits fatigued works to be relieved of duty without negative consequences. This should apply to both full and part-time personnel.
- Stress management and behavioral health resources should be available to personnel.
- Driving behaviors should be monitored using on-board monitoring and direct observation by supervisory personnel. These observations should be uniform, documented, evaluated, and used to reward good behaviors, discover needs for remediation, and find reckless behaviors that require immediate disciplinary action, including termination.
- Robust, closed-loop, incident reporting system should be in place.

Table of contents

About Markel's Risk Solution	
Services team	2
Backing scenario	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8

Distracted driving scenario

On the way to a post change, the driver received a call from their spouse that their checking account was overdrawn, the check for the electricity bounced, and the power was to be disconnected. While calling the bank to effect a transfer from savings, the driver dropped the card with his account numbers and while reaching for it to his right hit a power pole, which resulted in downed power lines.

Mitigation strategies

- Policy should prohibit the use of cellphones, including hands' free, while the vehicle is in motion.
- There is ample evidence that hands' free cellphones are not safe.
- Some ambulance services have zero-tolerance and immediately terminate anyone using a cellphone while driving. This also applies to the management team.
- In the event of a crash, the cellphone records of all parties will be subpoenaed.
- Some services provide financial counselors to employees.



Table of contents

About Markel's Risk Solution	
Services team	2
Backing scenario	3
Rear-end collision scenario	4
Lights and sirens scenario	5
Patient handling scenario	6
Policy scenario	7
Distracted driving scenario	8