DHG
Moving Health Forward

RAIZER II
Sales Playbook

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Playbook
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Falls Management Background

Despite significant attention and efforts in falls prevention,
falls still remain a highly prevalent incident among the acute and post-acute population

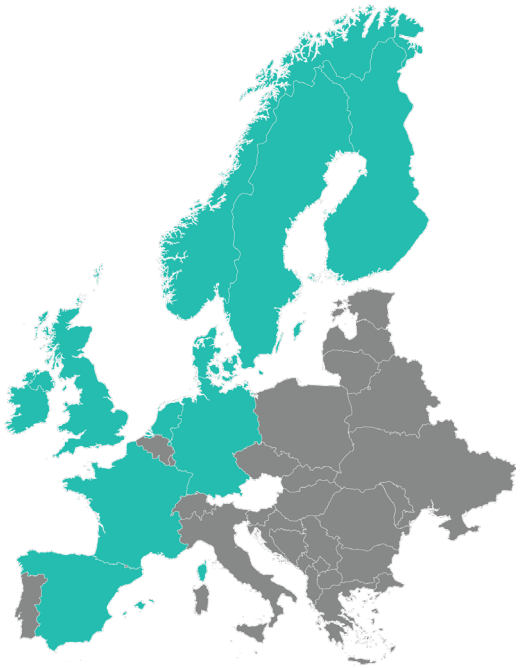
Global healthcare services recognise the impact of falls and frequently implement interventions to prevent them. It is little wonder why, as approximately 36,000 over 65s are reported to be fatally injured from falls every year in the EU.[1] The cost of falls are also high, with healthcare expenditure for treating fall-related injuries in the EU estimated to be €25billion per annum.[1]

Despite all of these efforts and attention falls prevention gets, the fact remains that falls are still a highly prevalent incident among the acute and post-acute population, particularly in the over 65 demographic.[2] They present a significant challenge to respond to within healthcare systems, and a number of co-morbidities for the faller if not appropriately responded to.

In many regions, the typical response to picking up a fallen individual is to call the emergency services. A freedom of information request to the ambulance trusts within the UK revealed that in the period of September 2022 to September 2023, ambulances responded to 588,069 calls to pick up a fallen person, of which 65,945 (11%) came from long-term care facilities. This is a huge resource drain on an already stretched service.

Incidence of Falls in Older Adults per 100,000, 2017

Country	Incidence Rate per 100,000
Norway	19,796
Finland	18,808
France	17,682
Germany	14,962
Sweden	14,835
Netherlands	13,623
Denmark	13,620
UK	12,099
Ireland	10,489
Spain	10,161



1.Falls among older adults in the EU-28: Key facts from the available statistics. European Public Health Association. Available here: https://eupha.org/repository/sections/ipsp/Factsheet_falls_in_older_adults_in_EU.pdf
2. Haagsma, J. A., Olij, B. F., Majdan, M. *et al.* (2020). Falls in older aged adults in 22 European countries: incidence, mortality and burden of disease from 1990 to 2017. *Injury Prevention.* 26:i67-i74,

Why do people fall?

Broadly, we can place these reasons into 3 categories: Person, Activity, and Environment

A fall is defined as an event which results in a person coming to rest inadvertently on the ground, floor, or other lower level.
World Health Organisation

Typically, we can broadly classify the reasons people fall into three distinct categories, with each having a number of causal factors within them. These three categories are:

Person

- Previous falls and the fear of falling - *many older adults fear falling, and as a result limit their physical activity. This can result in further physical decline, therefore increasing the likelihood of falling*
- Impaired balance and/or gait
- Co-morbidities - *may lead to impaired balance and/or gait, or limit mobility*
- Medication - *may cause impaired balance*
- Cognitive impairment or impaired vision
- Pain - *can cause issues with movement and increase the likelihood of falling, i.e. favouring balance on one leg*

Activity

- Limited physical activity
- Poor nutrition
- Risk-taking behaviour
- Inappropriate use of/refusal to use assistive devices
- Inappropriate footwear

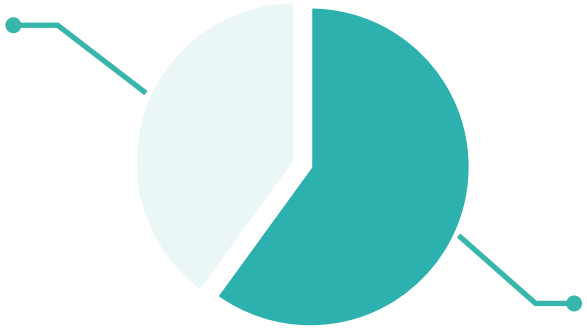
Environment

- Lack of appropriate adaptations or aids
- Trip hazards
- Stairs and steps
- Poor flooring
- Poor lighting

60% of falls do not result in a serious injury,[1]

but they can cause psychological impacts and have detrimental effects on recovery

40% of falls result in serious injuries such as fractures, dislocations or brain injuries



60% of falls result in non-serious injuries such as cuts, bruises or sprains

Most falls do not result in serious injury, but they can cause a person to **lose confidence**, **become withdrawn**, and feel as if they have **lost their independence**.

The length of time it takes to help a resident into a safe, upright (standing or seated) position can have a **significant impact on their recovery**. This length of time can be influenced by:

- Available equipment
- Skill of the caregiver to use the available equipment
- Whether or not an ambulance is called out as standard practice

A freedom of information request in the UK revealed that the average waiting time for an ambulance to pick someone up from the floor in the UK is **2 hours, 32 minutes, 53 seconds**.

Picking up a fallen person from the floor is not an easy task, and can often result in a **long-lie** situation.

1. https://www.sciedupress.com/journal/index.php/jha/article/view/6686

A long-lie situation
can lead to significant patient morbidity and mortality

15-30%

of falls result in a long-lie[1,2]

A long-lie is defined as a fall where the individual remains on the floor for 1 hours or longer.

A study within the BMJ[2] highlighted significant morbidity, and mortality, associated with long lies, including:

Pressure ulcers

Incontinence

Dehydration

Hypothermia

Psychological impacts

Repeat falls

50% of over 65s who have been admitted to hospital following a fall where they lay on the ground for longer than one hour **will die within 6 months**[2]

1. Tinetti ME, Liu W, Claus EB. Predictors and Prognosis of Inability to Get Up After Falls Among Elderly Persons. JAMA. 1993;269(1):65-70.
2. BMJ 2008; 337 doi: https://doi.org/10.1136/bmj.a2227 (Published 17 November 2008)Cite this as: BMJ 2008;337:a2227

Whilst prevention of falls in the first place is desirable, it is important that care facilities have the capacity to safely lift a patient to prevent a long-lie situation

In some circumstances the fallen individual will be able to pick themselves up off the ground, however,
47% of non-injured fallers are unable to get up from the floor without assistance[1]

When a fall has occurred, we can:

1. Assess the individual to determine whether they have suffered a serious injury, for example a femoral fracture
2. If there is no evidence of injury, but the resident is unable to get themselves up, there are typically 4 responses:

   I. Manually lift the patient up from the floor - *This is dangerous for the caregiver, and undignified for the faller*

   II. Utilise a mobile hoist - *this is a time consuming process*

   III. Utilise a ceiling track hoist - *this is a time consuming process*

   IV. Call the emergency services who will send a double crew ambulance or community first response team - *this is costly and wastes valuable resource*

Or we can utilise a dedicated solution that can take the fallen individual to a near standing position, in less than 3 minutes, by a single caregiver.

All whilst giving no physical exertion, with minimal training required, and providing the fallen individual with a dignified experience that leaves them feeling safe and confident.

This is the Raizer II.

1. Tinetti ME, Liu W, Claus EB. Predictors and Prognosis of Inability to Get Up After Falls Among Elderly Persons. JAMA. 1993;269(1):65-70.

Raizer II: The Falls Management Solution

Lifting a fallen person from the ground is a resource draining and risky exercise

Raizer II provides a simplfied solution that eliminates risk and releases time back to care

Raizer II Facts

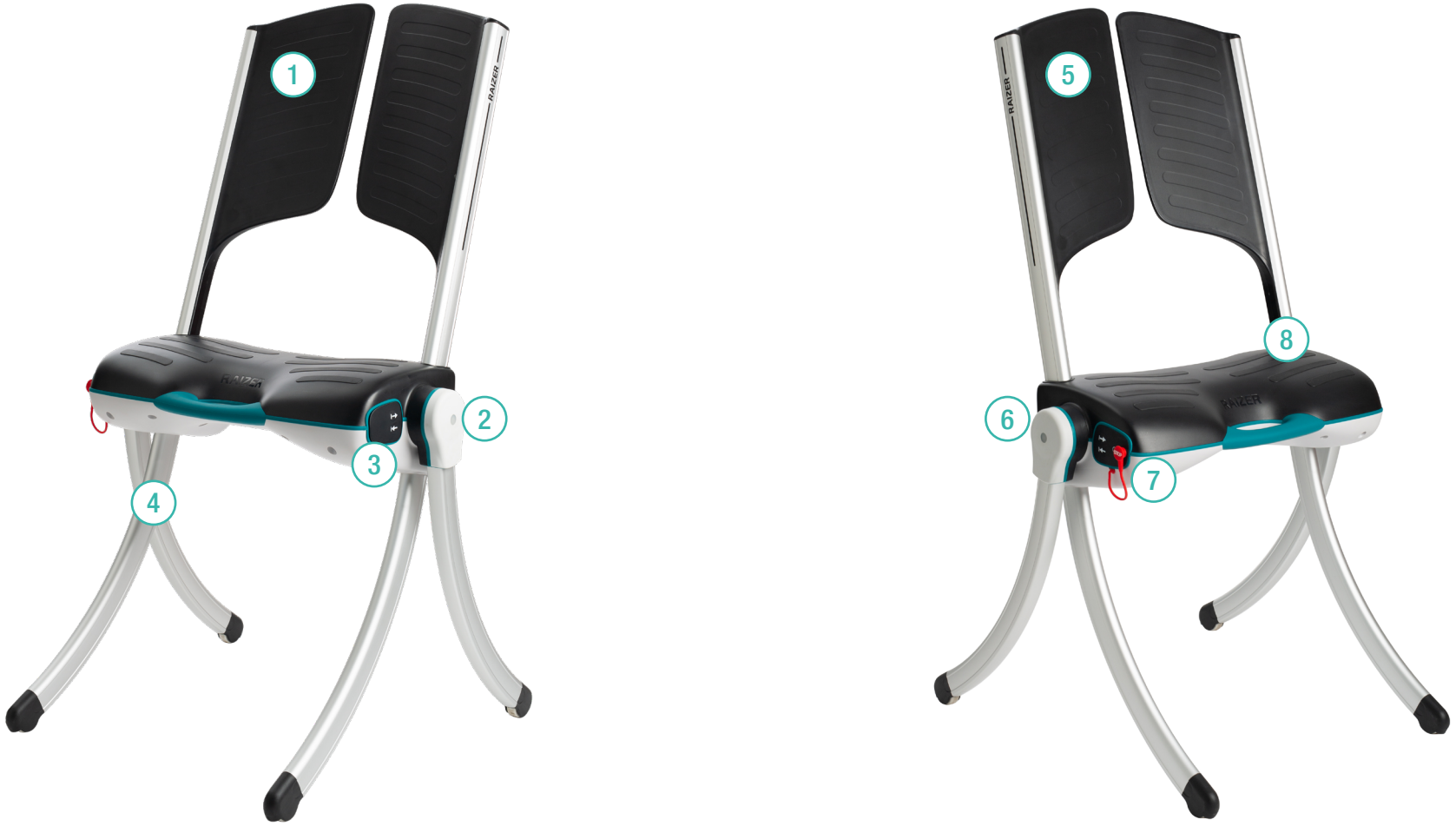
1. It takes one person to lift a fallen individual to a near-standing position
2. Requires minimum physical effort from the caregiver
3. It is quick to assemble, with identical legs and backrests
4. It is simple to assemble, with clear visual and audible guides
5. Will not lift if not properly assembled

Raizer II Benefits

1. Enables single-handed care and releases nursing time back to care
2. Reduces the risk of caregiver musculoskeletal injury (MSKI) due to excessive strain when moving and handling individuals
3. Reduced waiting time for the faller
4. Limited training required for the caregiver
5. Reduced risk for the faller

Raizer II features and benefits:

Providing an innovative, unique solution to the falls management problem



	Feature	Benefit
1	**Two indentical backrests**	Ensures correct and easy assembly to limit training requirements and quickly lift the fallen individual to a standing position.
2	**Positive audible and visual feedback**	Provides the user with confirmation that the Raizer II is being assembled correctly, including a final confirmatory tone to alert the caregiver that the system is ready to lift. The system also provides a feedback tone when the system is attempting to lift, but has not been assembled correctly. This also creates a safe lift for the individual.
3	**Removable remote control that powers the battery motor lift**	Enables a person-centred care approach by allowing the caregiver to be at the side of the fallen individual and supporting them during the lift. The battery operated, motorised lift ensures that no physical effort is required by the caregiver to lift the fallen individual into a near-standing position.
4	**Four identical legs**	Ensures correct and easy assembly to limit training requirements and quickly lift the fallen individual to a standing position.
5	**Hard, wipe clean surfaces with minimal seams**	Designed with infection control in mind, to easily disinfect between uses using standard disinfection wipes.
6	**End stop at the top of the lift**	Prevents excessive lifting of the Raizer and eliminates the risk of the user being tipped off the seat.
7	**Control panel including battery life indicator, service indicator, emergency stop and additional up/down controls**	Provides all the information required to ensure that the system is ready for use. The long life of the lithium ion battery enables up to 80 lifts per charge when lifting 100kg of weight (40 lifts at maximum weight of 150kg). The emergency stop can be used to quickly stop the Raizer II should there be an unsafe condition. Additional up/down controls allow the system to continue to be used even if the remote is missing.
8	**Correct insertion of the backrests and legs are automatically detected and prevents a lift if not correctly inserted**	Ensures that the system will only lift if properly assembled and therefore safe. Prevents unsafe lifting and potential risk to the fallen individual.

Raizer II Value Proposition:

1) Rapid lift, 2) Extremely safe, 3) Single-Handed Care

The Challenge

Despite significant attention on falls, and corresponding falls prevention programmes, they remain a huge problem within Europe and the wider global population, particularly within the over-65 population. Ensuring a **timely and safe pick up is essential** to long-term recovery in both physical and psychological health.

Value Proposition

Raizer offers a unique solution to quickly and safely lifting a fallen person, requiring only one caregiver to deliver a dignified and supported lift. The simple-to-use, powered lifting mechanism ensures that **any caregiver** can respond to a fallen individual rapidly, preventing the likelihood of a long-lie situation.

Key Message 1: Provides a Rapid Lift

The Raizer II can lift a fallen person to a near-standing position in a maximum of three minutes.

Key Message 2: Ensures an Extremely Safe Lift

Inherent safety features prevent an unsafe lift, with limited training provided. This means any caregiver can confidently lift a fallen individual.

Key Message 3: Enables Single-Handed Care

A single caregiver can safely lift a fallen individual, even within a confined space. This releases nursing time and resource back to care.

Raizer II has a compelling evidence base
within the long-term care and ambulance care segments

Long-Term Care/Elderly Care Evidence Base

Bristol, North Somerset and South Gloucestershire ICB

- BNSSG ICB were experiencing high numbers of call outs and hospital conveyances as a result of falls in their care homes
- The ICB implemented Raizer within their care homes, and saw a significant reduction in ambulance conveyance
- One care home, which saw 52 falls within 30 days, were able to achieve a 100% reduction in ambulance conveyance by utilising the Raizer II to lift the fallen individuals

Mid and South Essex Healthcare Partnership

- MSE HCP were experiencing high volumes of ambulance call outs to non-injured fallers. The average ambulance response time to non-injured fallers was 4 hours or more, resulting in significant long-lies
- MSE HCP placed Raizer II within their care homes and saw a 69% reduction in ambulance call outs
- Across all 320 MSE HCP care homes, this could save £1.3million per annum

Ambulance Services Evidence Base

South Western Ambulance Service NHS Foundation Trust

- SWASFT face a particularly difficult challenge as they serve the oldest comparative population in the UK
- SWASFT provided their Community First Responders (CFRs) with Raizer II to assist ambulances in lifting fallen individuals
- After 8 weeks the following benefits were realised:
  I. 77% of falls were managed by CFRs
  II. 12.5% decrease in response times
  III. 148 operational hours saved

East of England Ambulance Services NHS Trust

- EEAST covers a population of c6.2million people, falls make up around 17% of all their ambulance calls
- CFRs were equipped with Raizer II
- Response times to falls within the region were reduced to just 15-20 minutes

Selling Raizer II: Where, Who and How

Target Personas/Customers:
Acute

2.3 - 7

falls per 1,000 patient days[1]

Why target the Acute environment?

Falls are not just a problem for community-based care settings, but also occur frequently within the acute environment. Among hospital inpatients, falls range from 2.3 to 7 falls per 1,000 patient days, however, it remains the elderly population who suffer these falls the most, with 77% of all inpatient falls occurring amongst the 65+ patients.[2]

Questions to consider when targeting the Acute environment?

- What is their current protocol for responding to a fallen patient?
- How many non-injured falls do they get per month?
- What are their main pain points when dealing with non-injured fallers?
- How confident are the team in lifting a fallen patient? Are all members confident, or do they have to call specific individuals?
- How much education/training is provided for lifting a fallen individual?

Target Persona	Example Pain Points to Uncover	How Does Raizer Address these Concerns?
Falls Nurse Co-Ordinator	Ensuring a falls management programme is implemented and adhered to	Single solution process: "if a patient falls, I grab a Raizer"
	Education and training of the staff	Simple, fail-safe product
	Risk-assessment of the patients and environment	Increased application use versus traditional methods of picking up a fallen patient
	Use questioning to uncover any further pain points, and apply your knowledge of Raizer II to help address them	

1. Hitcho, E.B. *et al.* (2004). Characteristics and cirumstances of falls in a hospital setting: a prospective analysis. *J Gen Intern Med.* 79(7):732-739.
2. Facts about Falls. Profound. [http://profound.eu.com](http://profound.eu.com/wp-content/uploads/2014/01/AgeUK-ID201144-Falls-Awareness-Facts-About-Falls-FINAL.pdf "Facts about Falls").

Target Personas/Customers:
Long-Term Care

1.5

falls per year per bed, globally[1]

Why target the Long-Term Care environment?

Falls are three times more common in care home and long-term care residents than people of similar age living in their own homes.[2] Indeed, globally there are around 1.5 falls per year per long-term care bed[1], meaning if we take a larger European market such as the UK where there are c.480,000 care home beds, there are approximately 720,000 falls in aged care facilities within that market space.

Questions to consider when targeting the Long-Term Care environment?

- What is their current protocol for responding to a fallen elderly resident?
- How many non-injured falls do they get per month?
- Do they typically call the emergency services in order to pick up the non-injured faller?
- What are their main pain points when dealing with non-injured fallers?
- How confident are the team in lifting a fallen patient? Are all members confident, or do they have to call specific individuals?
- How much education/training is provided for lifting a fallen individual?

Target Persona	Example Pain Points to Uncover	How Does Raizer Address these Concerns?
LTC Home Manager	Delivery of high-quality care for residents	Provides a safe, dignified lifting experience
	High staff turnover rates reducing compliance to SOPs	Simple, intuitive operation. Requires limited training
	Shortage of caregiving staff and resource burdens	A single caregiver can safely bring a fallen individual to a near-standing position

See also Falls Nurse Co-Ordinator (page 17)

Use questioning to uncover any further pain points, and apply your knowledge of Raizer II to help address them

1. Salari. N. *et al.* (2022). Global prevalence of falls in the older adults: a comprehensive systematic review and meta-analysis. *J Orthop Surg Res.* 17:334
2. Logan, P. A., *et al.* (2021). Multifactorial falls prevention programme compared with usual care in UK care homes for older people; multicentre cluster randomised controlled trial with economic evaluation. *BMJ.* 375:e066991.

Target Personas/Customers:
Ambulance/Emergency Services

25%

of ambulance call outs for those aged 65+ are due to falls[1]

Why target the Ambulance/Emergency Services environment?
With 25% of ambulance call outs for those aged 65+ being due to falls, this means that 10% of all ambulance call outs are simply to respond to the fallen individual.[1] This is not only a significant resource burden on a stretched service, but also a huge financial drain, with an estimated NHS spend of £350million per year to respond to older people who have experienced a fall.

Questions to consider when targeting the Ambulance/Emergency Services environment?
- What percentage of their ambulance call outs are to respond to fallen individuals?
- How many of these are typically non-injured or suffering minor injuries, i.e. minor cuts, bruises or sprains?
- Do they utilise a CFR/rapid response team, or are double crew ambulances responding to falls?
- How frequently are they visiting long-term care facilities to pick up fallen individuals?

Target Persona	Example Pain Points to Uncover	How Does Raizer Address these Concerns?
Ambulance Service CFO	Reduced conveyance of double crew ambulance services	Raizer II requires limited training and therefore can be used with CFR/RR teams
	Reduced conveyance of any emergency service response	Supply of Raizer II into LTC facilities by the emergency services in order to reduce overall conveyance of any crew type
Ambulance Services Clinical Trainer	Equipment available to pick up a fallen individual quickly, easily and safely	Raizer II can easily be stored on an emergency vehicle and requires no physical exertion from the paramedic
Medical Equipment	Reduced cost of servicing equipment	Raizer II has longevity over competitors such as Camel/Elk
	Use questioning to uncover any further pain points, and apply your knowledge of Raizer II to help address them	

1. https://taking.care/blogs/resources-advice/elderly-falls-and-healthcare-report#whatarethe

Target Personas/Customers:
Homecare Provider

30%

of home-dwelling European citizens aged 65+ will fall each year[1]

Why target the Homecare environment?

Whilst falls may be most common in the long-term care facilities, a significant proportion (30%) of over 65s fall within their own home each year. The EU-27 average for 65+ individuals who used homecare services is currently 28.6%, with huge variation by geography: Denmark 52%, Netherlands 51%, Sweden 30%.[2] Whilst falls prevention within the home is a primary tactic, statistics would show that despite this elderly people still falls within their homes. More so, the locations of these falls within the home mean that the Raizer II is an inevitably suitable device for raising these fallen individuals: bedroom 25.0%, stairs 22.9%, and bathroom 22.7%.[3]

Questions to consider when targeting the Homecare environment?

- What is their response when a patient falls during their care visit? Would they typically call the emergency services?
- What are their main pain points when dealing with a fallen patient?
- Do they have the necessary equipment to hand to lift a fallen patient? Would they feel confident in lifting them?
- Are they provided with education and training in dealing with a fallen patient?

Target Persona	Example Pain Points to Uncover	How Does Raizer Address these Concerns?
District Nurse	They do not have appropriate equipment to lift a fallen person	Raizer II is a highly portable device that can be carried in their vehicle
	They do not receive specific training for lifting a fallen person	Raizer II requires limited training, and is a simple solution
	They would typically call the emergency services	Raizer II allows any caregiver to pick up a non-injured person
	Use questioning to uncover any further pain points, and apply your knowledge of Raizer II to help address them	

1. Franse, C. B. *et al.* (2017). A prospective study on the variation in falling and fall risk among community-dwelling older citizens in 12 European countries. *BMJ Open.* 7:e015827.
2. European Commission. (2021). Long-term care report: Technical update: European Health Interview Survey (EHIS) - Wave 3.
3. Moreland, B. L. *et al.* (2015). A descriptive analysis of location of older adult falls that resulted in emergency department visits in the United States, 2015. *Am J Lifestyle Med.* 15(6):590-597.

Sales process and questions template

Fill in the following as a template to help complete an overview for your target accounts

Situational Analysis

Who deals with falls in the facility?

What is their current falls management protocol?

What are the main pain points for this facility when dealing with a fallen individual?

How many non-injured fallers does the facility experience in one month/3 months/6 months/ one year?

Typically, how many people would it take to pick up a fallen individual in this facility?

Typically, how long would it take for the facility to pick up a fallen individual?

Utilise the above information to create the need. Present the information to the customer in a way that will resonate, i.e. how much staff resource/time/cost is taken up responding to fallen individuals. Are there situations where a long-lie has occurred?

Sales process and questions template
Continued

Providing a Solution

Based upon your discussions with the facility stakeholder, how can Raizer II address the facilities pain points?

Have the following key selling points been raised/address? Tick those that apply and have been discussed:

One caregiver can perform the lift

A lift takes 2-3 minutes maximum

Minimal training is required

The solution is inherently safe, a patient cannot be unsafely lifted

The lift provides a person-centred care approach

Committing to the Raizer II Solution

Is the customer interested in the Raizer II solution? If so, and assuming the evaluation is positive, what is the process for purchasing? What is the timeline for purchasing?

Are there any other decision makers involved? What is their budget level sign off?

Funding streams for Raizer II

Who is providing the funding across the various environments?

Acute Care Environment

- Typically a localised purchase coming from a capital budget
- Will likely need to demonstrate a health economic advantage based upon resource saving

Long-Term Care Environment

- Individual home capital budget to improve care/decrease conveyance of ambulances
- Larger care home groups may look to put in place a funding stream for several homes to acquire Raizer II unit(s)
- Local councils/kommunes may provide the funding for purchase of Raizer II within socially funded care homes
- Amublance services may purchase Raizer II and equip into long-term care facilities in order to reduce the conveyance of emergency care teams

Ambulance/Emergency Services Environment

- Capital funding to improve care delivery, efficiencies and safety for the emergency service teams
- This may include the provision of equipment to community response teams/rapid response teams
- Local council/kommunes may provide funding to equip community response vehicles

Homecare Environment

- Private homecare providers may fund capital purchase of Raizer II to improve their service offering, see example here: 8-week pilot study within Ashley Care's Homecare and Telecare services
- Local councils/kommunes may fund for provision to their District Nurse care teams/community response teams in order to enable faster and safer pick up for fallen individuals

The above provides some examples of possible funding streams. Explore all possible funding stream avenues with your target customer. Consider the alternative funding streams, i.e. emergency services providing them to homes with a high rate of falls.

Most funding for Raizer II will come from capital budgets. This will likely require an ROI/health economic benefit argument in order to help secure the funding. Work with the facility, utilising their key data metrics (number of falls, time take to lift a fallen individual, number of people to lift a fallen individual, etc.) to develop the ROI calculation.

Raizer II Sales Process

Utilising the Long-Term Care setting as an example

INTRODUCTION

- Identify those responsible for falls management, i.e. Falls Lead/Falls Co-Ordinator
- Understand their falls management process and their challenges related to falls
- Introduce the Raizer II, explaining how the system can address their key pain points, e.g. not enough staff resources to adequately respond to a fallen resident
- GOAL: Get the customer to agree to a demonstration of Raizer II

DEMONSTRATION

- Use the demonstration opportunity to show the ease of pick-up versus conventional methods, i.e. mobile hoist
- Allow the lead to pick up a “fallen” individual themselves
- Discuss the benefits of implementing Raizer II into their current falls management protocol
- GOAL: Get the customer to commit to an in situ clinical evaluation utilising trial unit(s)

EVALUATION

- Deliver a firsthand experience in clinical practice by providing a trial unit
- In-service as many staff as possible to gain buy in
- Collect feedback. Listen to potential objections and handle them
- GOAL: Encourage the adoption of Raizer II into clinical practice. Get people comfortable using the system

PROTOCOL

- Drive a protocol change through the success of the previous stages
- Establish the Raizer II into a new falls management protocol
- Aid the lead in their development of a new protocol
- GOAL: Further customer commitment, i.e. more floors or more homes if in a larger group. This leads to more unit sales

ADOPTION

- Culmination of a successful sales cycle
- Facility realises the positive benefits of the introduction of Raizer II
- Becomes an advocate for Raizer II
- GOAL: Reference site/clinical evidence generation

Remember the Three Key Messages

Provides a Rapid Lift

The Raizer II can lift a fallen person to a near-standing position in a maximum of three minutes.

Ensures an Extremely Safe Lift

Inherent safety features prevent an unsafe lift, with limited training provided. This means any caregiver can confidently lift a fallen individual.

Enables Single-Handed Care

A single caregiver can safely lift a fallen individual, even within a confined space. This releases nursing time and resource back to care.

Handling the Competition

Raizer's primary competitor product is the ELK and CAMEL from Winncare

However, Raizer II offers a significantly safer, dignified, and ergonomically better lifting experience

	Raizer II	Elk	Camel
Mode of Operation	Battery operated	Battery operated	Battery operated
Lifting Capacity (SWL)	150kg	450kg	320kg
Number of Lifts per Full Charge	80 at average load (approx. 100kg) 40 with max. load (150kg)	9 (anecdotal evidence suggests 3-4)	4
Lifting Time	20-30 seconds (build time approx. 1-2 minutes)	180 seconds (3 minutes, does not include time it takes to place user on to cushion)	180 seconds (3 minutes, does not include time to place user on to cushion)
Product Weight	13kg (Seat = 8.5kg, legs and backrest = 4.5kg)	3.6kg	6.5kg
Noise Level	<70dB(A)	Not given. High compression of air required to lift individual, therefore considered higher than Raizer, and also part of the reason why they do not state their noise level	Not given. High compression of air required to lift individual, therefore considered higher than Raizer, and also part of the reason why they do not state their noise level
ASP, €		€1,880	€3,160

Raizer II's primary market competitor is the Elk/Camel

There are several pros related to Raizer II when comparing to the Elk/Camel

Pros of Raizer II vs ELK/CAMEL

- Raizer can be constructed around a supine lying person providing a more dignified and safer lift for the fallen individual. Elk/Camel requires rolling and sitting up of the patient in order to position the system beneath them. This creates additional ergonomic workload for the caregiver versus the Raizer and adds additional strain to the fallen individual, potentially increasing the risk of further injury.

- In addition to the above, the ease-of-use of Raizer is greater. As mentioned it required no rolling, sitting or shuffling of the fallen individual, and the universal design of the legs and backrest means that there is no particular way in which it needs to be assembled. In comparison, the Elk/Camel needs to be connected in the correct 1, 2, 3, 4 order to correspond with the hand control unit and the lifting pillow.

- Raizer requires less trunk control/stability than the Elk/Camel. The supportive backrest, coupled with the safety belt and the option for additional safety belts in the chest area, ensure that fallers with reduced trunk control can still be safely and comfortably brought to a near-standing position. In comparison, the lack of back support on the Elk, as well as the air-filled cushions of the Elk/Camel, create an unstable surface for individuals who may already be lacking support and control. This is often counter-acted by the caregiver positioning themselves behind the individual who is being picked up and supporting their back, taking away the person-centred care and creating additional ergonomic workload for the caregiver.

- Using the Raizer allows for easier transition to a full standing position. This is because there is empty space beneath the seat unit, meaning that the feet can be positioned further back to create a posture that is more suitable to a full stand transition. Secondly, the Raizer places the user into a slight forward tilt, further aiding this movement. In users who may require a stand aid, the free space beneath the seat module allows for complete placement of the stand aid. In comparison, the Elk/Camel does not allow you to position your feet behind for an easier standing transfer, nor does it allow for a stand aid to be correctly positioned.

- Raizer provides a more stable lift versus Elk/Camel. The air-filled pillows of the Elk/Camel mean that the fallen individual may feel less stable which can be disconcerting for a fallen individual who may already be distressed. Additionally, the less stable rise of the air filled system may increase the risk of exacerbating injury from the fall.

- Raizer is easier to decontaminate due to the materials used. Elk/Camel's inflatable pillows are significantly harder to wipe down given the excess creases, etc. This is significantly important when the product is stored within an ambulance and used by first responders in vulnerable patient situations.

- The lifetime cost of the Raizer versus the Elk/Camel is potentially less. Market feedback frequently mentions quality issues associated with the breakdown of Elk/Camel pump units. The lack of a pump avoids this with Raizer.

Beyond the Elk and Camel we do see three other devices

That are utilised to pick up a fallen individual

			
	HoverJack	**Human Floor Lift**	**standUP**
Product Manufacturer	HoverTech International, often distributed by ETAC in EU countries	IndeeLift, distributed by various parties in Europe dependent on geography	MoveMaster AS
Pros	• Low friction base makes it easy to move a patient • Maintains patient in a supine position. May limit movement if injured • 544kg SWL. Suitable for bariatric use	• Self-operated • 181kg SWL • Easy side-to-side transfer to a bed or wheel chair	• Self-operated • 180kg SWL • Easy side-to-side transfer to a bed or wheel chair
Cons	• Large and bulky device, requires significant storage room. • May be disconcerting for patients due to large amount of air that requires pumping into the unit. • Expensive in comparison to other products • Patient still requires transferring onto the device. Therefore, a minimum of two carers would still be required. Movement of patient may cause additional injury	• Patient self-operation would require them shuffling to the lifting device, which may cause additional injury • Significant storage room required, not easily stored in an ambulance/first responder vehicle or a patient's home • Requires a patient to be able to sit up, this may not always be possible. Cannot be assembled around a supine lying patient	• Patient self-operation would require them shuffling to the lifting device, which may cause additional injury • Significant storage room required, not easily stored in an ambulance/first responder vehicle or a patient's home • Requires a patient to be able to sit up, this may not always be possible. Cannot be assembled around a supine lying patient
ASP, €	€5,300-€6,000	€3,200	€2,100

Typically, we will also see mobile hoists/ceiling track hoists used to lift a fallen person

Raizer II offers significant resource saving and MSKI risk reduction vs these methods

	Typical mobile hoist/ceiling track hoist and sling	Raizer II
Number of people required to perform the lift	2-3 people	1 person
SWL	270kg	150kg
Speed of the lift	15-20 minutes minimum with a very competent person. Typically 30-45 minutes.	2-3 minutes by anyone

Mobile Hoist Positives

+ Familiarity

+ Higher SWL

+ Can be used with non-ambulant users

Mobile Hoist Negatives

- Impact on staff time

- Lack of portability

- Lack of dignity for the individual being lifted

- Higher risk of MSKI through manual handling

Objections to Raizer II provide an opportunity,
showing that the individual is engaged with the product but requires further convincing

Raizer II can only lift 150kg
The average weight for an adult in Europe is currently around 80kg. Whilst the average weight of a person 65+ is c.70kg. Raizer II is suitable for the vast majority of the population, and this is even more apparent in the elderly. The reality is, if you are trying to lift a heavy, or bariatric, user with the Raizer II then it is not the right equipment as other complications such as excess tissue and body compositions will come into play. Solutions that utilise slings may be better at managing the excess tissue.

Raizer has lots of parts, whereas my mobile hoist/CTH is just one unit
Whilst there are 7 parts in total (1 seat unit, 2 backrests, 4 legs), the 2 backrests are identical and the 4 legs are identical. It may look like there are a lot of parts, but it is very straightforward to assemble and requires much less training/skill than lifting an individual from the floor using a mobile hoist or CTH.

I just lift a fallen individual using a mobile hoist/CTH, which I already have
A mobile hoist is more time consuming and requires more caregivers to perform the lift. The Raizer II releases time back to care by enabling a lift to occur in a maximum of 3 minutes, whilst being performed by a single caregiver. Additionally, lifting a fallen person using a mobile hoist/CTH system requires more training and is a specific skill. Raizer II requires minimal training, meaning any caregiver can confidently and safely lift a fallen individual from the floor.

What about users who have fallen in small areas? Typically, a lot of falls occur in the bathroom or at the foot of stairs, and these areas can be difficult to get mobile hoists into, or may not be covered by a CTH system.

What about when the mobiles hoists are being used? Or they're broken/being serviced. A dedicated falls management solution means there is always a device at hand to lift a fallen individual.

I'll have to train my staff to use another system
The Raizer II is simple, intuitive, and far easier to utilise than a mobile hoist, Most people can raise a fallen person within 3 minutes on their second use of the system.

The Raizer II is expensive
Raizer II is an investment into a high quality of care. Ultimately it will provide longer-term benefits by releasing more time back to care, creating better ergonomic working conditions for staff, and preventing long-lie situations.

Specifications and Part Numbers

Technical specifications
for Raizer II

	Raizer II
Lifting Capacity	150kg
Lifting Time	20-30 seconds
Weight	Total weight = 14.1kg Backrest and legs = 4.9kg Seat unit = 9.2kg
Number of Lifts per Full Charge	40 lifts with maximum load Approx. 80 lifts with an average load
Charging Time	Up to 6 hours to full charge
Charging Time to One Lift	10-15 minutes
Standing Dimensions	655mm (D) x 688mm (W) x 1225mm (H) Height from floor to seat at maximum = 633mm
Lying Dimensions	1321mm (L) x 688mm (W) x 277mm (H)
Noise Level	<70dB(A)
IP Rating	IP52
Battery Type	LiFEPO4, 12V, 5AH

Raizer II systems, accessories, and spares

Part numbers (for pricing, please consult the latest price list)

Product Code	Description
Raizer II System	
105029	Raizer II
107761	Raizer II & Headrest
Raizer II Accessories	
107464	Headrest
105026	Remote Control
107273	Trolley
103314	Triple Wheel, 2 pcs
103313	Bicycle Bracket Kit
103741	Hygiene Cover, 10 pcs
107250	Safety Belt
105192	15W Battery Charger, Multi Plug
105082	USB Charger Cable
107239	Carry Case, Raizer II
107436	Carry Case, Raizer II, incl. Charger
107240	Cover for Seat, Raizer II
107693	Wall Bracket Kit
Raizer II Spares	
104862	Backrest
107758	Seat Top, Before May 2022
108460	Seat Top, After May 2022
104871	Leg, Raizer II

Raizer II Spares Cont.	
102890	Battery
105010	User Panel
105026	Remote Control
104303	Control Board
107391	Screw Kit
105082	USB Charger Cable
107622	Speaker Retaining Ring
107107	Ribbon 20 Cable, 245mm
103083	Speaker
107374	Mount for Trolley
107104	FSC Cable 14 Pole, 300mm
107106	Wire 2x26 avg 200mm
107279	Rims
108350	Seat Button Kit
105008	Silicone Seal Packing
104911	Handle
107105	Wire 380mm Long

Frequently Asked Questions

Frequently Asked Questions

General Questions

What standards does the Raizer II meet?
The Raizer II is a Class I medical device that meets the following standards:

- 60601-1 - Medical electrical equipment, general requirements for basic safety
- 60601-1-2 - Electromagnetic disturbances - requirements and tests
- 60601-1-6 - Usability
- 60601-1-8 - General requirements, tests and guidance for alarm systems
- 60601-1-11 - Requirements for medical electrical equipment and medical electrical systems used in home healthcare environment
- 60601-1-12 - Requirements for medical electrical equipment and medical electrical systems intended for use in the emergency medical services environment
- 10993-1 - Biological evaluation of medical devices
- 10535 - Hoists for the transfer of disabled persons - requirements and test methods

Does the Raizer II have any contra-indications?
The Raizer II should not be used if:

- The user has suffered a serious injury, such as a fracture or significant blood loss
- The user is not fully conscious during the lifting process
- Weigh more than 150kg
- The user has an unstable fracture
- The user has an intolerance to motion

Does the Raizer II contain any latex material?
The Raizer II does not contain any latex material.

Can I take the Raizer II on a plane?
Local legislation should always be consulted and followed. Both the Civil Aviation Authority (CAA, UK) and the European Aviation Safety Agency (EASA, Europe) state that Lithium Ion batteries with a Watt-hour (Wh) rating of more than 100Wh should not be taken on a plane. The Raizer II has a Wh rating of 64Wh. The Raizer II should only be taken as carry-on, and should not be checked in to the hold.

Frequently Asked Questions
Continued

General Questions

Does the Raizer II require an annual service?
DHG recommends an annual service once the service light comes on. All service inspections should be performed by a qualified service technician, either from DHG a service technician that has been trained by DHG.

What does an annual service consist of?
During an annual service, the following aspects will be inspected and confirmed as safe:

- All legs and backrests are inspected for defects
- The mounting of legs and backrests are confirmed safe
- The hinges are checked and confirmed safe
- All seals are checked and confirmed safe
- Complete function test is performed
- An overload protection test is performed
- Necessary alarms and auto power off functions are checked
- Service light is reset

Does the Raizer II require a LOLER test?
As the Raizer II does not suspend an individual off the ground, and they remain in constant contact with the ground, the Raizer II does not require a LOLER test. Annual servicing of the equipment may fall under the Provision and Use of Work Equipment Regulations (PUWER).

Frequently Asked Questions
Continued

Battery/Charging Questions

How long do I have to charge the battery for?
Prior to first use it is recommended that the battery is charged for a minimum of 6 hours. Following this, the battery should be charged as required. It will take approximately 6 hours to go from empty to full charge.

How often do I have to charge the battery?
The battery should be charged as and when required. As a minimum, it is recommended that the battery is charged at least every 6 months.

What type of battery does the remote control need if replacing it?
If replacing the remote control battery, it requires a CR2032 3V lithium battery.

Notes

DHG

Moving Health Forward

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