

Canadian Association of Occupational Therapists
Product Recognition Program

Stander™ EZ Adjust Bed Rail



Available online at www.caot.ca/prp



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Disclaimers

The information compiled in this report was designed for informational purposes and to communicate the final conclusions of a documented review process. The decision to award a seal of recognition **does not supersede or replace other codes, requirements or regulations** set by authoritative organizations of a specific jurisdiction. CAOT encourages health professionals to act in a responsible manner and according to best practices for the recommendation, assessment, installation and maintenance of this product. It is critical to **follow the recommendations set by the manufacturer and/or distributor** of this product and, when relevant, engage domain expert for training, use, installation, maintenance and repair.

Recognition of a product by the Canadian Association of Occupational Therapists through the Product Recognition Program is **not a guarantee** of any product, nor is it an endorsement of the company. The Canadian Association of Occupational Therapists assumes **no responsibility** for any product or corporation, nor for any damages caused by any product or company. It is recommended that you consult an occupational therapist about the appropriateness and the proper use of the product.

Specific questions related to this product(s) (including usage, availability, pricing, etc.) should be addressed directly to the manufacturer and/or distributor. Please contact Stander Inc. by email at sales@stander.com or by phone at 1(800) 506-9901 extension 126. Also, customers or potential customers are invited to watch an instruction video of the Stander – EZ Adjust Bed Rail: <https://vimeo.com/234678900>. Concerns or questions related to the content of this report should be addressed to Julie Lapointe, Director of Knowledge Translation Programs, at jlapointe@caot.ca or at 1(800) 434-2268 ext. 260.

The conclusions presented in the current report are derived from the best information available. In the case that new information becomes available and grants a modification to the conclusions, CAOT reserves the right to update and issue a new report of this product at any time.

Acknowledgement

The generation of this report would not have been possible without the contribution of occupational therapists and members of the Canadian Association of Occupational Therapists (CAOT).





Executive Summary

The Stander™ EZ Adjust Bed Rail is a product that assists with bed mobility (i.e. rolling on the side, sitting or moving up in the bed). This product also supports sit-to-stand transfers from bed and may prevent users from rolling out of bed. Reviewers recommended that the Stander™ EZ Adjust Bed Rail be accepted for the CAOT Product Recognition Program. Information and recommendations regarding the performance of the product are provided in this report.



Stander™ EZ Adjust Bed Rail is recognized by CAOT.



Review report

The purpose of this product

The Stander™ EZ Adjust Bed Rail is a product that assists with bed mobility (i.e. rolling on the side, sitting or moving up in the bed). This product also supports sit-to-stand transfers from bed and may prevent users from rolling out of bed. When not in use, this bedrail can be fold out of the way, allowing caregivers unobstructed access to provide assistance.

The Stander™ EZ Adjust Bed Rail can be used as a half-bed rail to support in and out of bed transfers, and extends to a full-size bed rail to prevent users from rolling out of bed. The Stander™ EZ Adjust Bed Rail adjusts from 26" – 42" inches with the push of a button. It can be used with mattresses between 12-18 inches thick and can support users up to 300 lbs. / 136 kg. It also comes with an organizer pouch to keep items close by.

Performance of the product (efficacy, usability, safety, reliability, durability)

- The Stander™ EZ Adjust Bed Rail was found to be made out of robust quality material by reviewers.
- The stability of the product is heightened because a hex key is required to adjust bed rail height and the horizontal bars are at fixed heights.
- It is easy for users with bilateral upper extremity use to adjust the length between the two available settings (one hand to operate button, one to adjust length), making it possible to use a longer rail when in bed and a shorter bed rail when transferring. There are also 4 horizontal bars at fixed heights, so the client can choose his or her preferred height when using the rail. Users without adequate bilateral upper extremity use would require assistance to adjust the length of the bed rail or to fold it down.
- A storage pouch is attached to the product so items such as remotes, medications or glasses can be kept close by.
- The product is easy to install, accommodates mattresses from 12 to 18 inches thick, is easy to adjust, and can be used on the left or right side of the bed.
- Two people are required for installation because the mattress needs to be lifted to appropriately place the product. This product attaches to the bed with a "Safety Strap" to secure it to the bed frame. Adjustments in height require the use of a hex key.
- With any bed rail, there is a risk for entrapment of limbs if there is a gap between the rail and the mattress. The Stander™ EZ Adjust Bed Rail has a few features to minimize this risk. The "Safety Strap" secured to the bedframe reduces the risk of the bed rail sliding out. Fabric material also covers the gaps between the horizontal bars for part of the bed rail length (leaving the end uncovered for better grip for bed transfers). The instructions warn of this issue and recommend frequent monitoring.
 - The manufacturer addresses bed entrapment in their assembly instructions package and more importantly, identifies which users should NOT use the device. The product comes with a Bed Entrapment Information Sheet.
 - Other safety risks may include: entrapment of limbs, contact injuries and fall hazards.



- Regular monitoring is required once installed to ensure that the bolts are tight and that the straps are intact. Users also need to be aware that there are only two small pins that hold the rail in the upright position. If one of the pins breaks, the rail would no longer be safe for use.
- A bed rail that extends may be considered a restraint in some provinces and/or situations. Reviewers recommend that professionals refer to their provincial safety norms related to the use and installation of this type of product. The Stander™ EZ Adjust Bed Rail can be moved down and out of the way by the person in the bed. An occupational therapist or family member should ensure the client is aware of how to move the rail out of the way and that they can physically do so or communicate to a caregiver if they want to get in and out of bed.

Important recommendations

Reviewers identified potential safety risks associated with the use of this product and recommend that professionals refer to their provincial safety norms related to this type of product.

The following potential risks have been mentioned by reviewers:

- **Entrapment of limbs** - Due to the 3 inch gap between horizontal bars, an arm or a leg could become entrapped and result in injury.
- **Suffocation hazard** - The fabric material cover could be a suffocation hazard for someone who is not mobile in bed.
- **Fall hazard** - As the Stander™ EZ Adjust Bed Rail is secured under the mattress, it does move slightly when a lot of pressure is applied. Users that rely entirely on this product during their transfers may be destabilized by this slight motion and may fall.
- **Contact injuries** - "Active sleepers" may make contact with the device, which could result in bruising or other injuries.

Users of the Stander™ EZ Adjust Bed Rail are encouraged to review the safety information provided by the manufacturer in the assembly instructions package to help minimize these risks. It is also recommended that users follow the monitoring schedule recommended by the manufacturer.

This product clearly outlines that there is a 300 lb. / 136 kg weight restriction. Therefore, the reviewers recommend that this product not be used with individuals close or above that weight.

Consumers and caregivers are invited to read the safety recommendations related to bed rails issued in 2017 by the U.S. Food & Drug Administration (FDA, 2017).

Economic considerations

All reviewers felt that the Stander™ EZ Adjust Bed Rail was good value for money. The product comes with a lifetime warranty, and is available for purchase online, through general vendors (e.g., Walmart, Shoppers Home Health Care), as well as medical supply vendors.



Scientific evidence

- According to Healy, Oliver, Milne and Connelly (2008), the role of bed rails in falls prevention is controversial, with many believing that bed rails may be harmful and ineffective. However, their review concluded that serious direct injury from the use of bed rails is related to use of outdated designs and incorrect assembly rather than the use of bed rails themselves, and bed rails do not appear to increase the risk of falls or injury from falls (Healy et al., 2008).
- A literature review completed by Moore, Ryan and Rhead (2015) indicated that patients with bed rails appear less likely to fall and less likely to be seriously injured if they do fall. The authors emphasize that the decision to use bed rails must be based on an accurate, detailed, comprehensive and individualistic assessment of an individual's care needs and preferences, which must always be determined collaboratively with the individual and/or significant others (Moore et al., 2015).
- To our knowledge there is no published research on the Stander™ EZ Adjust Bed Rail. A quick search in PubMed and Google Scholar yielded no result.

Review committee

The Stander™ EZ Adjust Bed Rail was reviewed by three occupational therapists with diverse backgrounds, expertise and experience. The first reviewer has been working at a rural health care organization for three years, providing client care in acute, outpatient, long-term care and community care settings. The second reviewer works in the community. She addresses bed mobility and sleep issues in clients who have sustained injuries or are experiencing chronic illness. The third reviewer is a recent graduate who works in a hospital where she is responsible for recommending equipment at discharge and performing evaluations and training with various equipment with clients on the unit.

Final recommendation

Reviewers were unanimous in recommending that the Stander™ EZ Adjust Bed Rail be accepted for the CAOT Product Recognition Program. This product may be recommended by an occupational therapist for a client who requires an aid for bed mobility, transfers and fall prevention from bed. An occupational therapist may also choose this rail for a client who requires assistance with activities of daily living or positioning while in bed because the caregiver can fold the rail out of the way for the provision of assistance.

References

- Healey, F., Oliver, D., Milne, A., & Connelly, J. B. (2008). The effect of bedrails on falls and injury: a systematic review of clinical studies. *Age and ageing*, 37(4), 368-378.
- Moore, K. Ryan, A. & Rhead, G. (2015). *A review of the literature on restraints and the use of bedrails*. Retrieved from http://uir.ulster.ac.uk/32105/2/Literature_Review_Report_on_Bed_Rails_July_2015__FINAL.pdf
- U.S. Food & Drug Administration (FDA). (2017). *Recommendations for Consumers and Caregivers about Bed Rails*. Retrieved from <https://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/BedRailSafety/ucm362843.htm>