Development of Home Care Guidelines for the Caregivers of the Patients Being Discharged with Spinal Cord Injury

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Abstract

Background   After spinal cord injury (SCI), victims may become partially or fully dependent on the caregivers. After getting discharge from the hospital, they are cared by their caregivers. Often patients return to hospital with serious complications owing to inadequate knowledge of the caregivers. So, it is essential to meet the informational needs of the caregiver regarding home care.

Objective   The aim of this study is to develop home care guidelines for the caregivers of the patients being discharged with SCI.

Method   The study was conducted in five phases. The blueprint of the home care guidelines was prepared. Face and content validity of the home care guidelines were done using the Delphi technique. An observational checklist was prepared from the final draft of the guidelines. The guidelines were found feasible after conducting a pilot study on five caregivers. To calculate the reliability of the guidelines, 30 caregivers were taught as per developed guidelines and were observed while caring for their patients by checklist. Reliability was calculated using Cronbach α coefficient.

Results   The checklist showed Cronbach α of 0.91. Guidelines were found to be feasible and reliable. Guidelines were developed in two languages: English and Hindi.

Conclusion   The home care guidelines are valid and reliable. Guidelines enable caregivers to provide the best possible care to their patient at home to prevent development of complications.

Keywords
► SCI
► home care guidelines
► caregiver

Introduction

A spinal cord injury (SCI) refers to any injury to the spinal cord that is caused by trauma instead of disease. It is a serious condition resulting in severe disability or death, with survivor facing myriad of health problems and multiple complications affecting their day-to-day living. There is no definite treatment for SCI, but one can prevent further damage to the cord with medical and surgical treatment. The rehabilitation process following an SCI typically begins in the acute care settings to make the patient's life easy and to prevent complications.[1] Patients with SCI usually require long-term care. With a huge population overcrowding the hospitals, it becomes necessary to discharge these patients to accommodate the other patients who need emergency care. Otherwise also, shorter stay of the patient in the hospital is preferred. With this changing climate of health care delivery system, a large number of clients return to their homes quicker, however, they may be too sick to be looked after in the home settings. So, they are left to the care

by their family members. The family/caregiver may not have acquired an adequate knowledge of how to give care at home. They are not just concerned with activities of daily living, such as bathing, dressing, eating, but also in many other health care matters such as prevention of contractures and pressure sore, bladder, and bowel management.[2]

A prospective cohort study conducted in Australia revealed that the incidence of contracture in major joints 1 year after SCI ranges from 11 to 43%. The ankle, wrist, and shoulder are most commonly affected joints. Although contracture development is preventable still incidence of occurrence of contractures is quite high.[3] Another study conducted in 1990 by Kwiczala et al also revealed that families and caregivers of bedridden patients have insufficient knowledge of pressure ulcer prevention. Contribution of medical staff in education of families of patients at risk in pressure ulcer prevention is minimal, indicating the need of preparation and implementation of an educational program for bedridden patients' caregivers.[4] In 2010, a study was conducted which revealed that the urinary complications remain the leading cause of morbidity and one of the cause for urinary complications is the lack of guidelines for bladder management.[5] Another study found that caregivers who provide care to people with SCI are struggling to provide quality care to improve their patients' lives in the absence of good evidence to guide their treatment decisions.[6] A recent study performed at Postgraduate Institute of Medical Education & Research, Chandigarh, India, in 2011 on 19 patients found that major complications faced by patients with SCI after discharge from hospital were bedsores (52.6%) followed by bowel and bladder dysfunction (47.4%) and urinary tract infection (42.1%). Study concluded that there is a need for intensive public education regarding SCI, its complications, their prevention, and care.[7] Experience suggested that to ensure the safest care for the patient at all times and to provide quality care at home, teaching and instructions should be given to caregivers regarding various care modalities and procedures. With this background, a methodological study was conducted with the objective to develop the home care guidelines for the caregivers of the patients being discharged with SCI. Home care guidelines are the comprehensive list of the important and relevant actions or steps which are to be performed in a specific manner. The home care guidelines are meant to assist caregivers in providing adequate, safe, and efficient care to their patients in the home setting, to improve patient's quality of life, and to prevent complications.

Patients and Methods

A methodological research approach was adopted to develop the home care guidelines for caregivers of patients being discharged with SCI. The study was performed in Neurosurgical and Orthopaedic units of Nehru Hospital, Chandigarh, India. Ethical approval for the study was obtained from the Institute Ethical Committee of PGIMER, Chandigarh, India. The study was conducted in five phases.

Phase I: Preparation preliminary draft of the home care guidelines: it was divided into the following two steps: in the first step, an exhaustive literature review was done to collect recent evidences related to home care of patient with SCI and the role of family members in the care of the patient. Further, a rigorous review of literature related to the prevention of complications in the patients with SCI was done. Sources of literature included both electronic databases (PubMed, Medline, and CINHAL), as well as printed material (books and journals). In the second step, various protocols and tools were analyzed and items related to home care were pooled together. Selected items were organized to generate first draft of home care guidelines. Items were categorized under eight domains (personal hygiene, care of the bowel, care of the bladder, bedsore prevention, pressure sore dressing, range of motion exercises, changing position of patient, and incentive spirometry).

Phase II: The face and content validity of the home care guidelines was done with the Delphi technique. For the procedure of the Delphi technique, a panel of experts consisting of 11 members from field of nursing (medical–surgical nursing and community health nursing) and department of neurosurgery was formulated. The sample of panelists was heterogeneous to ensure that entire spectrum of opinion could be determined. These all panelists were experts in their field and interested to engage in the whole process of this research study. The written consent was taken from all the selected experts to participate in study. Then, first draft of home care guidelines was circulated among the selected panel of experts and they were requested to give their valuable suggestions pertaining to content for its relevance, clarity, language, organization, level of understanding, accuracy of information, item order, that is, organization and sequence of the items and wording of items. The process was continued until there was a common consensus among the panel of experts. Four Delphi rounds were done to obtain the consensus, as per expert's opinion modifications in home care guidelines were made. The fourth draft of guidelines had seven domains regarding care of the patient at home with exclusion of one domain, that is, wound dressing. An observational checklist consisting of 125 items was prepared from the fourth draft of guidelines to compute reliability of these guidelines. One score was given for each correct and zero score for each incorrect or missing step.

Phase III: A pilot study was conducted on five caregivers in Neurosurgical and Orthopaedics units of Nehru Hospital, Postgraduate Institute of Medical Education & Research, Chandigarh, India, to assess the feasibility and practicability of home care guidelines and to pretest the home care guidelines for language clarity, appropriateness, and sequence of items. Caregivers of those patients who had paraplegia or quadriplegia after SCI were included in study. Caregivers of the patients who had injury above C_4 (vertebrae) level were excluded. Purpose of the study was explained to the caregivers and a written consent was obtained. Caregivers were taught as per developed

guidelines. Individualized demonstrations on two domains were given to the caregivers in a day. Return demonstrations of the same domains were taken from the caregivers on the next day before demonstrating the next two domains/procedures. Researcher took 5 days to demonstrate all the domains to the caregiver of one patient. Guidelines were found to be feasible. Guidelines were easy to understand and implement. The language of the guidelines was clear, appropriate and items were organized in a sequence. The average time taken to teach the guidelines and to observe the developed skills of the caregivers was 25 to 30 minutes per day for 4 days. So, it was feasible to train the caregivers of patients as per developed home care guidelines. No further modifications were required. The draft 4 of home care guidelines was considered as final draft.

Phase IV: The reliability of developed home care guidelines was tested in phase IV. It included implementation of the home care guidelines and reliability of the guidelines that was checked by using Cronbach α. For this, 30 caregivers were taught as per developed guidelines and they were observed while caring for their patient by checklist. Purpose of the study was explained to the caregivers, and written consent was obtained from them. Home care guidelines consisted of seven domains of care, that is, personal hygiene, bladder care, bowel care, bedsore prevention, changing position of patient, prevention of contractures, and incentive spirometry. Individualized demonstrations on two domains were given to the caregivers in a day. Return demonstrations of the same domains were taken from caregivers on next day before demonstrating the next two domains/procedures. Researcher took 5 days to demonstrate all the domains to the caregiver of one patient.

Phase V: Home care guidelines were developed in the form of booklet in two languages English and Hindi.

Results

The data were analyzed by SPPS (version 16). The Cronbach α was used to find out internal consistency reliability of present checklist prepared from final draft of home care guidelines. The sample size for analysis was 30. There were total 125 items in the checklist, and the overall Cronbach α

coefficient of the developed checklist was 0.91, which indicates the reliability and internal consistency of checklist (ideally Cronbach α coefficient should be 0.7 or more than 0.70). Corrected item to total score correlation was applied on all 125 items of the checklist, 120 items in the checklist had an item score to total score correlation between 0.1 and 0.9 (►**Tables 1–12**), whereas 5 items in the scale had an item to total score correlation less than 0.1 showing incompatibility with the overall checklist.

To check the individual contribution of items, each item was deleted one by one to see the changes in the value of Cronbach α coefficient. But none of the items showed any increase in value of Cronbach α. Rather, the value of Cronbach α coefficient remained same or it decreased. This indicates all items contributed to tool. Even on deleting certain items, having item to total correlation less than 0.1, the value of Cronbach α did not increase. Hence, these five items also contributed to the reliability of the checklist. The average scale mean was 148.38. When scale mean if item deleted was applied on 125 items of checklist, the scale mean if item is deleted was in the range of 148.23 to 148.50 and none of the item had shown an increase in the value of average scale mean rather it remained same or it decreased. It means checklist is internally consistent by taking all the 125 items.

Discussion

This methodological study was planned with the objective to develop the home care guidelines for the caregivers of patients being discharged with SCI in selected units of Nehru Hospital, Postgraduate Institute of Medical Education & Research, Chandigarh, India. Home care guidelines are the comprehensive list of the important and relevant actions or steps which are to be performed in a specific manner. The home care guidelines are required to ensure that quality care is being provided to patients in the home setting, and to prevent complications.

Developing countries such as India do not have good number of rehabilitation centers which are necessary for patients with SCI. Moreover, available health facilities are too expensive that everyone cannot afford them. Caregivers do not have adequate knowledge to care for their patient at

Table 1 Reliability analysis of items of checklist of personal hygiene

Item of checklist	Scale mean if item deleted	Corrected item total correlation	Cronbach α if item deleted
Gives bed bath daily	148.40	0.141	0.910
Gives eye care 2 times a day	148.40	0.186	0.910
Gives oral care daily	148.43	0.137	0.910
Maintains perineal hygiene	148.23	0.194	0.910
Gives hair care as per need	148.26	0.154	0.910
Gives hand and feet care as per need	148.33	0.119	0.910

Notes: overall scale mean is 148.38; overall reliability of the checklist is 0.91 (Cronbach α).

Table 2 Reliability analysis of items of checklist of the bladder care

Item of checklist	Scale mean if item deleted	Corrected item total correlation	Cronbach α if item deleted
Collects equipments	148.33	0.166	0.910
Cleans the genital area	148.26	0.133	0.910
Takes catheter and wipes it up to 25 cm first with soap and wet swabs	148.26	0.270	0.910
Applies jelly to catheter tip up to 15–25 cm	148.50	0.228	0.910
Immerses other end of catheter in receptacle	148.26	0.118	0.910
Holds penis at right angle to body/separates vulva with one hand	148.40	0.147	0.910
Inserts lubricated catheter slowly in urethra	148.43	0.030[a]	0.910
Asks the patient to take deep breaths and advances the catheter	148.23	0.881	0.906
Stops when urine begins to drain	148.50	0.199	0.910
Allows urine to drain in the receptacle	148.43	0.186	0.910
Pinches the catheter and removes it slowly	148.46	0.003[a]	0.910
Washes it with soap and water, hangs to dry it	148.33	0.792	0.907
Discards urine after measuring and observing it	148.30	0.718	0.907
Washes hands	148.30	0.939	0.906

[a]Items in checklist which shows item to total correlation < 0.2.
Notes: overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

Table 3 Reliability analysis of items of checklist of the bowel care

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Collect equipments	148.30	0.939	0.906
Washes hands	148.33	0.792	0.907
Provides privacy	148.33	0.792	0.907
Positions patient on side	148.30	0.939	0.906
Places plastic sheet under buttocks	148.33	0.792	0.907
Wears gloves	148.30	0.939	0.906
Lubricates index finger with jelly	148.33	0.792	0.907
Inserts finger into rectum slowly	148.30	0.939	0.906
Loosens the fecal mass by massaging around it	148.30	0.939	0.906
Brings fecal mass downward to the end of the rectum	148.30	0.939	0.906
Allows the patient to rest in between	148.33	0.792	0.907
Removes small sections of feces at a time and collect in bedpan	148.30	0.939	0.906
Washes the anal area and buttocks	148.30	0.939	0.906

Notes: Overall scale mean is 148.38; overall reliability of the checklist is 0.91 (Cronbach α).

home. Hence, the researcher through this study attempted to devise home care guidelines to ensure that caregivers have sufficient knowledge and skills to care for their patient in home settings that required to improve quality of patient care and to prevent complications.

Studies revealed that complications in patients were less in those to whom teaching was given on clean intermittent catheterization, bowel program, position the patient correctly and to eliminate pressure in the injured area,

inspection of the skin, and hygiene.[8,9] So, in this study, the researcher focused her research around the care of a bedridden patient and developed the "home care guidelines for the caregivers of the patients being discharged with spinal cord injury."

In this study, "home care guidelines for the caregivers of the patients being discharged with spinal cord injury" were developed in five phases. Phase I was preliminary preparation of the "Homecare guidelines." In phase II, the

Table 4 Reliability analysis of items of checklist on prevention of the bedsore

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Keeps bedsheet wrinkle free	148.33	0.881	0.906
Keeps bedsheet dry	148.43	0.590	0.908
Changes the position of the patient every 2 h	148.43	0.333	0.909
Uses comfort devices for the patient	148.46	0.477	0.909
Cleans back from sacrum toward shoulder in circular motions two times a day	148.36	0.591	0.908

Notes: overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

Table 5 Reliability analysis of items of checklist for moving the patient up in bed toward head end

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Makes the bed flat	148.33	0.264	0.910
Removes the pillow from under the head	148.36	0.480	0.909
2–3 caregivers stand on the right side of bed	148.33	0.379	0.909
First caregiver assumes the responsibility for supporting the head, shoulder, and chest	148.40	0.179	0.910
Second caregiver supports the hips	148.46	0.152	0.910
Third caregiver holds the knees from underside	148.40	0.113	0.910
One caregiver gives the signal by counting 1, 2, 3	148.30	0.606	0.908
All the caregivers move the patient up and toward the center of bed at the count of 3	148.30	.606	0.908
Desired position is given to the patient	148.40	0.681	0.908
Places the pillows under the head of the patient or wherever desired	148.30	0.939	0.906

Notes: Overall scale mean is 148.38; overall reliability of the checklist is 0.91 (Cronbach α).

Table 6 Reliability analysis of items of checklist for moving the patient up in bed with bedsheet

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Places the sheet under the patient extending from shoulder to thigh	148.36	0.325	0.910
Two caregivers stand on each side of bed	148.43	0.269	0.910
Grasps the sheet firmly near the patient	148.43	0.272	0.910
Pulls the sheet along with the patient till desired position is reached	148.46	0.252	0.910
Makes the patient comfortable	148.33	0.264	0.910

Notes: Overall scale mean is 148.38; overall reliability of the checklist is 0.91 (Cronbach α).

content and face validity was done with the Delphi technique. Delphi technique has also been used by Kirkwood et al[10] to determine nursing research priorities in the North Glasgow University Hospitals. They found that three Delphi rounds were sufficient to reach consensus. In this study, modifications were made after three Delphi rounds, although fourth round was also taken to reach the final consensus. As there was common consensus among panelists, therefore no further modifications were required

to finalize draft of "home care guidelines for the caregivers of the patients being discharged with spinal cord injury."

In phase III, feasibility was checked by conducting a pilot study. The pilot study was conducted in the wards of orthopedic and neurosurgical departments. In phase IV, the internal consistency (reliability) of the "home care guidelines" was checked by Cronbach α by using SPSS version 16. The Cronbach α coefficient value of the checklist prepared from developed home care guidelines was

Table 7 Reliability analysis of items of checklist for moving the patient from back to side-lying position

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Brings patient toward the right side of bed	148.30	0.522	0.908
Keeps the arm of the patient away from caregiver along the side of head, face and arm	148.36	0.714	0.907
Keeps the arm which is near to the caregiver, across the chest of the patient	148.46	0.263	0.910
Flexs near leg over the farthest leg of patient	148.46	0.271	0.910
Places his/her arms under the shoulder, hips	148.33	0.385	0.909
Rolls the patient gently away from self to put him/her in side-lying position	148.43	0.023[a]	0.910
Places one pillow in between knees, under the back, arm head	148.30	0.428	0.909
Makes the patient comfortable	148.50	0.181	0.910

[a]Items in checklist which shows item to total correlation < 0.2.
Notes: Overall scale mean is 148.38. Overall reliability of the checklist is 0.91 (Cronbach α).

Table 8 Reliability analysis of items of checklist for moving the patient from bed to trolley

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
2–3 caregivers stand on the same side of the bed to which they want to turn the patient	148.30	0.351	0.909
Places the client's arms across the chest	148.46	0.239	0.910
Leans onto his/her trunk and flexs his/her hips, knee, and ankles	148.33	0.863	0.906
All caregivers reach over the patient	148.30	0.939	0.906
First caregiver assumes the responsibility for supporting the shoulders	148.50	0.142	0.910
Second caregiver supports the hips	148.43	0.144	0.910
Third caregiver holds the knees of patient	148.40	0.189	0.910
All the caregivers roll the patient to lateral position at the count of 3	148.36	0.554	0.908
Supports the patient's head, back, and upper and lower extremities with pillows	148.33	0.173	0.910
Makes the patient comfortable	148.33	0.236	0.910

Notes: Overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

established at 0.91, providing the reliability of home care guidelines. In a similar methodological study by Kausal et al[11] on, "development of nursing checklist to receive patients in ICU," the value of Cronbach α was 0.97.

Katz et al[12] reported similar findings on the internal consistency of "The Dynamic Occupational Therapy Cognitive Assessment for Children." The reported Cronbach α was 0.77. Benson and Koomar[13] also reported almost same findings. They assessed the internal consistency of "gravitational insecurity" outcome measure. The α of the total test score was 0.71.

Similar findings were reported on the internal consistency of the "audit tool." An "audit tool" was developed for auditing the family records in a methodological study. Internal consistency of the tool was checked with Cronbach α coefficient, and the value was 0.73 which indicated as the reliability of the tool.[14]

Another study on the "development of birth preparedness tool"[15] reported the similar findings of the Cronbach α coefficient with value of 0.81, which determined the reliability of the tool.

In the phase V of this study, home care guidelines were developed in the form of booklet in two languages: English and Hindi.

In this study, valid and reliable home care guidelines were developed for the caregivers of patients being discharged with SCI. These home care guidelines were developed and prepared in the form of booklet in two languages: English and Hindi.

Conclusion

The complications that arise once the patient with SCI is discharged from hospital because of insufficient knowledge of caregiver's presents unique challenges for the health care

Table 9 Reliability analysis of items of checklist for exercises of the shoulder, elbow, and forearm

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Makes the patient comfortable in bed	148.433	0.290	0.910
Raises the right arm above the head up to maximum possible height and then brings it back (sitting position)	148.36	0.268	0.910
Raises the right arm to the side of the body and then above the head with palm away from the head and brings the arm back	148.33	0.333	0.909
Moves the right arm in full circle vertically	148.36	0.190	0.910
Brings the shoulder toward the body	148.43	0.234	0.910
Take the shoulder away from the body	148.46	0.198	0.910
Performs all exercises on left side of body	148.33	0.037	0.910
Bends the elbows and moves the lower arm toward its shoulder joint	148.36	0.365	0.909
Straightens the elbow by lowering the lower arm again	148.40	0.303	0.910
Performs all exercises on other side of body	148.33	0.179	0.910
Keeps elbow along the side of the body and lower arm at 90 degree to the elbow in horizontal position	148.46	0.153	0.910
Rotates the forearm so that the palm now faces down units	148.30	0.127	0.910
Performs same exercises on the other arm	148.46	0.232	0.910

Notes: Overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

Table 10 Reliability analysis of items of checklist for exercises of the wrist, fingers, and thumb

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Straightens the wrist. Palm should be facing down units	148.26	0.107	0.910
Bends the wrist upward and backward	148.26	0.034	0.910
Bends the wrist forward and downward	148.33	0.162	0.910
Twists wrist to the right and then to left	148.26	0.186	0.910
Repeat same exercises on other hand	148.46	0.224	0.910
Makes a fist and tightens the fist	148.50	0.114	0.910
Relaxes and opens the fist	148.40	0.083[a]	0.910
Straightens and stretches the fist	148.400	0.096	0.910
Bends fingers back toward the arm as far as possible	148.36	0.007[a]	0.910
Spreads fingers apart and brings fingers together	148.36	0.094	0.910
Places squeezing ball in hand and presses it	148.33	0.259	0.910
Performs all exercises on other hand	148.33	0.190	0.910
Bends the thumb toward the center of the palm and then back to its original position	148.40	0.121	0.906
Touches thumb to each finger of same hand	148.33	0.173	0.910
Extends thumb laterally away from the index finger	148.43	0.193	0.910
Moves thumb back toward hand	148.40	0.276	0.906
Repeats exercises on the other hand	148.26	0.175	0.910

[a]Items in checklist which shows item to total correlation < 0.2.
Notes: Overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

Table 11 Reliability analysis of items of checklist for exercises of the leg, knee, ankle, and toes

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Moves the straighten leg up as far as possible and bring it down	148.43	0.112	0.909
Moves the straighten leg away from the body laterally as far as possible and then back toward the midline	148.26	0.129	0.910
Turns the leg toward the other leg and then back	148.30	0.231	0.907
Repeats all the exercises on the other leg	148.36	0.115	0.910
Makes the patient to lie in bed comfortably	148.26	0.139	0.910
Bends the knee and then straighten it again	148.33	0.100	0.910
Repeats on the other knee	148.50	0.246	0.906
Moves foot so that toes are pointed upunits	148.50	0.176	0.910
Moves foot so that toes are pointed downward	148.36	0.164	0.910
Turns the ankles to the left and then right	148.46	0.136	0.910
Repeats all these exercises on other side	148.26	0.118	0.910
Spreads toes apart	148.50	0.190	0.909
Curls toes downward	148.33	0.179	0.906
Straightens toes and brings toes together again	148.30	0.192	0.910
Performs all exercises on other toe	148.50	0.209	0.910

Notes: Overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

Table 12 Reliability analysis of items of checklist for incentive spirometry

Item of checklist	Scale mean if item deleted	Corrected item-total correlation	Cronbach α if item deleted
Gives sitting position (paraplegic patient) or raise the head end of bed with help of pillows (quadriplegia)	148.50	0.133	0.910
Asks the patient to hold spirometer in an upright position (paraplegic patients) or holds spirometer in his/her hands (quadriplegic patients)	148.50	0.228	0.910
Asks the patient to place the mouthpiece in his/her mouth and seal his/her lips tightly around it	148.33	0.150	0.910
Asks the patient to breath slowly and as deeply as possible	148.33	0.166	0.910
Asks the patient to raise the ball toward the top of the column	148.40	0.263	0.910
Asks the patient to hold his/her breath as long as possible	148.36	0.184	0.910
Asks the patient to allow the ball to fall to the bottom of the column	148.40	0.164	0.910
Asks the patient to rest for a few seconds	148.33	0.396	0.909
Asks the patient to repeat same for at least 10 times every hour when he/she is awake	148.43	0.193	0.911

Notes: Overall scale mean is 148.38; Overall reliability of the checklist is 0.91 (Cronbach α).

professionals. The results indicate that "home care guidelines for the caregiver of the patients being discharged with SCI" are valid and reliable and can be applied in daily practice. These guidelines address interventions tailored to enable caregivers to provide best possible care to their patient at home to prevent the development of complications.

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