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Physiotherapie bei spitalassoziiertem Verlust der Selbständigkeit von älteren Personen

Physiothérapie en cas de perte d'autonomie liée à l'hospitalisation chez les personnes âgées

Etwa 30 Prozent der hospitalisierten älteren Menschen über 65 Jahre haben bei Austritt aus dem Spital die Selbständigkeit in wichtigen Alltagsaktivitäten wie anziehen, vom Bett oder einem Stuhl aufstehen, die Toilette benutzen oder im Zimmer gehen verloren. Dies, obschon die Grunderkrankung, die zur Spitaleinlieferung führte, erfolgreich behandelt wurde [1, 2].

Mit diesem Verlust der Selbständigkeit, auch Hospital-Associated Disability (HAD) genannt, ist vor allem der Funktionsverlust bei Krankheiten gemeint, die per se nicht einen langfristigen Funktionsverlust mit sich bringen. Ein Beispiel dafür ist die Lungenentzündung, bei der PatientInnen die Selbständigkeit nach Heilung der Lungenentzündung schnell wiedererlangen. Die Häufigkeit einer HAD sank in den letzten Jahren nicht [2].

Im Jahr 2020 erschien eine Studie mit 268 PatientInnen im Alter zwischen 75 und 102 Jahren (durchschnittliches Alter 88 Jahre) einer akutgeriatrischen Abteilung [3]. PatientInnen, die zwei Wochen vor Spitaleinweisung schon unselbständig in allen Alltagsaktivitäten waren, wurden ausgeschlossen. Zusätzlich zur normalen Therapie erhielt die Interventionsgruppe täglich etwa 20 Minuten Therapie, bestehend aus Gehen und Aufstehen von einem Stuhl (1 bis 3 Serien mit bis zu 10 Wiederholungen). In der Kontrollgruppe hatten 58 von 125 PatientInnen bei Austritt aus dem Spital die Selbständigkeit in mindestens einer Alltagsaktivität verloren im Vergleich zur Situation zwei Wochen vor Spitaleintritt (46 %), in der Interventionsgruppe 45 von 143 (31 %). Dies entspricht einer absoluten Risikoreduktion von 15 Prozent und einer relativen Risikoreduktion von 32 Prozent.

In einer zweiten Analyse unterteilten die ForscherInnen die PatientInnen in «Responders» und «Non-Responders»: Responders waren diejenigen, die sich seit Spitaleintritt mindestens in einer Alltagsaktivität so verbesserten, dass sie diese wieder selbständig ausführen konnten. Bei 52 Prozent der PatientInnen in der Interventionsgruppe war keine Alltagsaktivität verbessert oder sie waren sogar verschlechtert [4]. Dies deutet darauf hin, dass die Intervention nicht für alle

Environ 30 % des personnes âgées de plus de 65 ans hospitalisées ont perdu, lors de leur sortie de l'hôpital, leur autonomie dans des activités quotidiennes importantes telles que s'habiller, se lever du lit ou d'une chaise, aller aux toilettes ou marcher dans leur chambre. Et ce, malgré le fait que l'affection primaire responsable de l'hospitalisation a été traitée avec succès [1, 2].

Cette perte d'autonomie, également appelée Hospital-Associated Disability (HAD), est principalement une perte fonctionnelle dans le cas de maladies qui n'entraînent pas en soi de perte fonctionnelle à long terme. La pneumonie en est un exemple: les patient-es retrouvent rapidement leur autonomie après la guérison. La fréquence d'une HAD n'a pas diminué ces dernières années [2].

En 2020 est parue une étude portant sur 268 patient-es âgé-es de 75 à 102 ans (âge moyen de 88 ans) dans un service de gériatrie aiguë [3]. Les patient-es qui étaient déjà dépendant-es dans toutes les activités quotidiennes deux semaines avant leur admission à l'hôpital ont été exclu-es de l'étude. En plus de la thérapie conventionnelle, le groupe d'intervention a reçu environ 20 minutes de thérapie supplémentaire par jour, consistant à marcher et à se lever d'une chaise (1 à 3 séries de jusqu'à 10 répétitions). Dans le groupe contrôle, 58 des 125 patient-es (46 %) avaient perdu leur autonomie dans au moins une activité quotidienne à leur sortie de l'hôpital par rapport à la situation deux semaines avant leur admission; dans le groupe d'intervention, cette proportion est de 45 patient-es sur 143 (31 %). Cela correspond à une réduction absolue du risque de 15 % et à une réduction relative du risque de 32 %.

Dans une deuxième analyse, les chercheur-es ont divisé les patient-es en «responders» et «non-responders»: les responders sont les patient-es qui, depuis leur admission à l'hôpital, se sont amélioré-es dans au moins une activité quotidienne au point d'être à nouveau capables de l'exécuter de manière autonome. Chez 52 % des patient-es du groupe d'intervention, aucune activité quotidienne ne s'est améliorée, voire la situation s'est aggravée [4]. Cela suggère que

genügte. Die AutorInnen der Studie untersuchten verschiedene Prädiktoren für den Erfolg der Therapie. Sie konnten jedoch keine Empfehlungen formulieren, wer eine andere Therapie erhalten sollte und ob diese Therapie inhaltlich anders sein müsste oder einfach umfangreicher. |

Roger Hilfiker, PT MSc,
ist Professor an der HES-SO Valais-Wallis.

Nähere Details und Videos zu den Interventionen (kostenpflichtiger Zugang): [www.jamda.com/article/S1525-8610\(19\)30836-9/fulltext](http://www.jamda.com/article/S1525-8610(19)30836-9/fulltext)

l'intervention n'a pas été suffisante pour tou-tes. Les auteur-es de l'étude ont examiné divers prédicteurs de succès de la thérapie. Cependant, ceux-ci n'ont pas été en mesure de formuler des recommandations quant à savoir qui devrait recevoir une autre thérapie et si cette thérapie devrait être différente en termes de contenu ou simplement plus complète. |

Roger Hilfiker, PT MSc,
est professeur à la HES-SO Valais-Wallis.

De plus amples informations et des vidéos des interventions sont disponibles sous (accès payant): [www.jamda.com/article/S1525-8610\(19\)30836-9/fulltext](http://www.jamda.com/article/S1525-8610(19)30836-9/fulltext)

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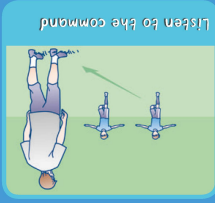
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EXERCISE 1 JOG & LOOK AT THE COACH (TO STOP)

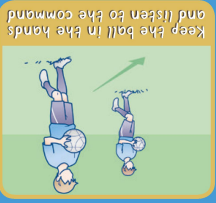
- 3x 5 stop commands
- 3x 5 stop commands
- 3x 5 stop commands
- 3x 5 stop commands



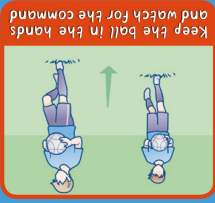
Listen to the command



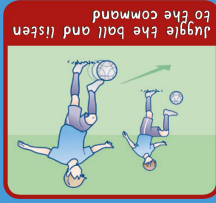
Watch for the command



Keep the ball in the hands and listen to the command



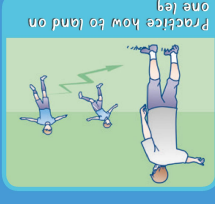
Keep the ball in the hands and watch for the command



Juggle the ball and listen to the command

EXERCISE 2 SKATING HOP

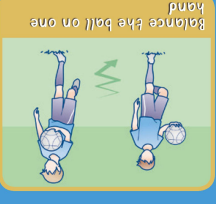
- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)
- 2x 10 hops (5 on each leg)



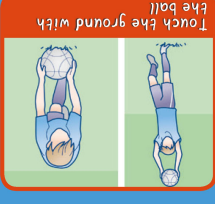
Practice how to land on one leg



Keep the ball in the hands



Balance the ball on one hand



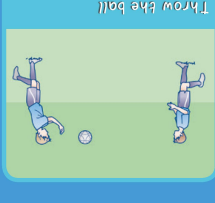
Touch the ground with the ball



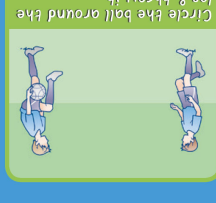
Balance and stretch forward with the ball

EXERCISE 3 ONE LEG STANCE

- 1x right/left and 5 passes per player
- 1x right/left and 5 passes per player
- 1x right/left and 5 passes per player
- 1x right/left for ca. 20 seconds



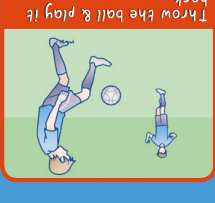
Throw the ball



Circle the ball around the leg & throw it



Pass the ball



Throw the ball & play it back



Challenge your balance

EXERCISE 4 PUSH UP

- 2x until each kid rolls 1x the ball (max. 8 kids)
- 3x 15 seconds
- 3x 15 seconds
- 3x 10 seconds



Make a tunnel & roll the ball underneath



In a plank position & roll the lower legs on the ball



Keep position & roll the ball between hands



Keep position & roll the ball between hands and feet



Hands on the ball & challenge your position

EXERCISE 5 ONE LEG HOPS



- 2x, 5 hops on right leg and 5 hops on left leg

11+

PART 1 RUNNING EXERCISES · 8 MINUTES



1 RUNNING STRAIGHT AHEAD

The course is made up of 6 to 10 pairs of parallel cones, approx. 5-6 metres apart. Two players start at the same time from the first pair of cones. **Jog together** all the way to the last pair of cones. On the way back, you can increase your speed progressively as you warm up. **2 sets**



2 RUNNING HIP UP

Walk or jog easily, stopping at each pair of cones to lift your knee and **rotate your hip outwards**. Alternate between left and right legs at successive cones. **2 sets**.



3 RUNNING HIP IN

Walk or jog easily, stopping at each pair of cones to lift your knee and **rotate your hip inwards**. Alternate between left and right legs at successive cones. **2 sets**.



4 RUNNING CIRCLING PARTNER

Run forwards as a pair to the first set of cones. Shuffle sideways by 90 degrees to meet in the middle. **Shuffle an entire circle around one other** and then return back to the cones. Repeat for each pair of cones. Remember to stay on your toes and keep your centre of gravity low by bending your hips and knees. **2 sets**.



5 RUNNING SHOULDER CONTACT

Run forwards in pairs to the first pair of cones. Shuffle sideways by 90 degrees to meet in the middle then **jump sideways towards each other to make shoulder-to-shoulder contact**. Note: Make sure you land on both feet with your hips and knees bent. Do not let your knees buckle inwards. Make it a full jump and synchronize your timing with your team-mate as you jump and land. **2 sets**



6 RUNNING QUICK FORWARDS & BACKWARDS

As a pair, run quickly to the second set of cones then run **backwards quickly to the first pair of cones keeping your hips and knees slightly bent**. Keep repeating the drill, running two cones forwards and one cone backwards. Remember to take small, quick steps. **2 sets**.

PART 2 STRENGTH · PLYOMETRICS · BALANCE · 10 MINUTES

LEVEL 1



7 THE BENCH STATIC

Starting position: Lie on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders.
Exercise: Lift your body up, supported on your forearms, pull your stomach in, and hold the position for 20-30 sec. Your body should be in a straight line. Try not to sway or arch your back. **3 sets**.



8 SIDEWAYS BENCH STATIC

Starting position: Lie on your side with the knee of your lowermost leg bent to 90 degrees. Support your upper body by resting on your forearm and knee. The elbow of your supporting arm should be directly under your shoulder.
Exercise: Lift your uppermost leg and hips until your shoulder, hip and knee are in a straight line. Hold the position for 20-30 sec. Take a short break, change sides and repeat. **3 sets on each side**.



9 HAMSTRINGS BEGINNER

LEVEL 2



7 THE BENCH ALTERNATE LEGS

Starting position: Lie on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders.
Exercise: Lift your body up, supported on your forearms, and pull your stomach in. Lift each leg in turn, holding for a count of 2 sec. Continue for 40-60 sec. Your body should be in a straight line. Try not to sway or arch your back. **3 sets**.



8 SIDEWAYS BENCH RAISE & LOWER HIP

Starting position: Lie on your side with both legs straight. Lean on your forearm and the side of your foot so that your body is in a straight line from shoulder to foot. The elbow of your supporting arm should be directly beneath your shoulder.
Exercise: Lower your hip to the ground and raise it back up again. Repeat for 20-30 sec. Take a short break, change sides and repeat. **3 sets on each side**.



9 HAMSTRINGS INTERMEDIATE

LEVEL 3



7 THE BENCH ONE LEG LIFT AND HOLD

Starting position: Lie on your front, supporting yourself on your forearms and feet. Your elbows should be directly under your shoulders.
Exercise: Lift your body up, supported on your forearms, and pull your stomach in. Lift one leg about 10-15 centimetres off the ground, and hold the position for 20-30 sec. Your body should be straight. Do not let your opposite hip dip down and do not sway or arch your lower back. Take a short break, change legs and repeat. **3 sets**.



8 SIDEWAYS BENCH WITH LEG LIFT

Starting position: Lie on your side with both legs straight. Lean on your forearm and the side of your foot so that your body is in a straight line from shoulder to foot. The elbow of your supporting arm should be directly beneath your shoulder.
Exercise: Lift your uppermost leg up and slowly lower it down again. Repeat for 20-30 sec. Take a short break, change sides and repeat. **3 sets on each side**.



9 HAMSTRINGS ADVANCED

BEGINNER



Starting position: Kneel on a soft surface. Ask your partner to hold your ankles down firmly.
Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstrings and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 3-5 repetitions and/or 60 sec. **1 set.**

INTERMEDIATE



Starting position: Kneel on a soft surface. Ask your partner to hold your ankles down firmly.
Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstrings and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 7-10 repetitions and/or 60 sec. **1 set.**

ADVANCED



Starting position: Kneel on a soft surface. Ask your partner to hold your ankles down firmly.
Exercise: Your body should be completely straight from the shoulder to the knee throughout the exercise. Lean forward as far as you can, controlling the movement with your hamstrings and your gluteal muscles. When you can no longer hold the position, gently take your weight on your hands, falling into a push-up position. Complete a minimum of 12-15 repetitions and/or 60 sec. **1 set.**

10 SINGLE-LEG STANCE HOLD THE BALL



Starting position: Stand on one leg.
Exercise: Balance on one leg whilst holding the ball with both hands. Keep your body weight on the ball of your foot. Remember: try not to let your knees buckle inwards. Hold for 30 sec. Change legs and repeat. The exercise can be made more difficult by passing the ball around your waist and/or under your other knee. **2 sets.**

10 SINGLE-LEG STANCE THROWING BALL WITH PARTNER



Starting position: Stand 2-3 m apart from your partner, with each of you standing on one leg.
Exercise: Keeping your balance, and with your stomach held in, throw the ball to one another. Keep your weight on the ball of your foot. Remember: keep your knee just slightly flexed and try not to let it buckle inwards. Keep going for 30 sec. Change legs and repeat. **2 sets.**

10 SINGLE-LEG STANCE TEST YOUR PARTNER



Starting position: Stand on one leg opposite your partner and at arm's length apart.
Exercise: Whilst you both try to keep your balance, each of you in turn tries to push the other off balance in different directions. Try to keep your weight on the ball of your foot and prevent your knee from buckling inwards. Continue for 30 sec. Change legs. **2 sets.**

11 SQUATS WITH TOE RAISE



Starting position: Stand with your feet hip-width apart. Place your hands on your hips if you like.
Exercise: Imagine that you are about to sit down on a chair. Perform squats by bending your hips and knees to 90 degrees. Do not let your knees buckle inwards. Descend slowly then straighten up more quickly. When your legs are completely straight, stand up on your toes then slowly lower down again. Repeat the exercise for 30 sec. **2 sets.**

11 SQUATS WALKING LUNGES



Starting position: Stand with your feet hip-width apart. Place your hands on your hips if you like.
Exercise: Lunge forward slowly at an even pace. As you lunge, bend your leading leg until your hip and knee are flexed to 90 degrees. Do not let your knee buckle inwards. Try to keep your upper body and hips steady. Lunge your way across the pitch (approx. 10 times on each leg) and then jog back. **2 sets.**

11 SQUATS ONE-LEG SQUATS



Starting position: Stand on one leg, loosely holding onto your partner.
Exercise: Slowly bend your knee as far as you can manage. Concentrate on preventing the knee from buckling inwards. Bend your knee slowly then straighten it slightly more quickly, keeping your hips and upper body in line. Repeat the exercise 10 times on each leg. **2 sets.**

12 JUMPING VERTICAL JUMPS



Starting position: Stand with your feet hip-width apart. Place your hands on your hips if you like.
Exercise: Imagine that you are about to sit down on a chair. Bend your legs slowly until your knees are flexed to approx 90 degrees, and hold for 2 sec. Do not let your knees buckle inwards. From the squat position, jump up as high as you can. Land softly on the balls of your feet with your hips and knees slightly bent. Repeat the exercise for 30 sec. **2 sets.**

12 JUMPING LATERAL JUMPS



Starting position: Stand on one leg with your upper body bent slightly forwards from the waist, with knees and hips slightly bent.
Exercise: Jump approx. 1 m sideways from the supporting leg on to the free leg. Land gently on the ball of your foot. Bend your hips and knees slightly as you land and do not let your knee buckle inward. Maintain your balance with each jump. Repeat the exercise for 30 sec. **2 sets.**

12 JUMPING BOX JUMPS



Starting position: Stand with your feet hip-width apart. Imagine that there is a cross marked on the ground and you are standing in the middle of it.
Exercise: Alternate between jumping forwards and backwards, from side to side, and diagonally across the cross. Jump as quickly and explosively as possible. Your knees and hips should be slightly bent. Land softly on the balls of your feet. Do not let your knees buckle inwards. Repeat the exercise for 30 sec. **2 sets.**

PART 3 RUNNING EXERCISES • 2 MINUTES

13 RUNNING ACROSS THE PITCH



Run across the pitch, from one side to the other, at 75-80% maximum pace. **2 sets.**

14 RUNNING BOUNDING



Run with high bounding steps with a high knee lift, landing gently on the ball of your foot. Use an exaggerated arm swing for each step (opposite arm and leg). Try not to let your leading leg cross the midline of your body or let your knees buckle inwards. Repeat the exercise until you reach the other side of the pitch, then jog back to recover. **2 sets.**

15 RUNNING PLANT & CUT



Jog 4-5 steps, then plant on the outside leg and cut to change direction. Accelerate and sprint 5-7 steps at high speed (80-90% maximum pace) before you decelerate and do a new plant & cut. Do not let your knee buckle inwards. Repeat the exercise until you reach the other side, then jog back. **2 sets.**

11+ KIDS



EXERCISE 7 ROLL OVER

- 5-7x per side
- 5-7x per side
- 5-7x per side
- 5-7x per side

Crouch and roll over

From standing, slowly roll over

From standing, quickly roll over

Slow walk & roll over

Jog & roll over

EXERCISE 6 SPIDERMAN

- 3x 15 seconds
- 3x over 5-10 meters
- 3x over 5-10 meters
- 3x over 5-7 meters

Touch the ball with alternating feet

Stretch out the position

Crawling

Crawling & move the ball between the feet

Crawling with the hands & move the ball with the feet

- 2x, 5 hops on right leg and 5 hops on left leg
- 2x, 5 hops on right leg and 5 hops on left leg
- 2x, 5 hops on right leg and 5 hops on left leg

Hop forwards

Hop forwards & backwards

Hop sideways

Follow the command & hop

Follow the command & hop while holding the ball in the hands