

THE ALM APPROACH – PREVENTING MUSCULOSKELETAL RISKS DURING PATIENT HANDLING AND TRANSFER

Introduction

The 'Accompagner La Mobilité' (ALM) approach (supporting the mobility of the person needing help by taking care both of that person and of oneself) was set up in response to the many issues regarding the prevention of musculoskeletal disorders (MSDs) in the health and social care (HeSCare) sector.

First initiated under the name 'Handling care' (Le soin de manutention) in 2012 at the Paris Saint-Joseph Hospital Group (GHPSJ),¹ it was then adopted by the Institut National de Recherche et de Sécurité (INRS)² in 2018.³ This innovative approach changes the culture of professionals in terms of the very conception of their practice: care is provided without necessarily having to carry the patient. It transforms patient handling and transfer practices by reducing musculoskeletal (MSK) risks as well as improving the quality of care for patients.

The approach is based on the sequence of natural movements that patients should ideally perform spontaneously (naturally on their own) as well as on the carer's assessment of the patient's ability to perform each movement required to move around.

This case study is part of a research project⁴ carried out with the aim to provide an overview of research on work-related MSK risk factors and MSK health in the HeSCare sector.

Description of the case

Objective

The ALM approach aims to transform patient handling and transfer practices to reduce MSDs while improving the quality of care. Rather than teaching carers how to lift, move or carry patients, this approach is based on the abilities of the patients themselves and the integration of adapted equipment where necessary so that the carer does not have to carry the patient themselves.

The aim of the ALM approach is to prevent MSDs and accidents often caused by:

- handling of patients, particularly when repositioning them in bed, moving them from seated to standing position or from a bed to a chair and vice versa, and
- falls, both by patients and carers, when standing up.

What has been done and how

The idea behind the ALM approach goes back several decades to a reflection on the consequences of handling practices on the health of carers. This process began when the OETH association (Obligation d'emploi des travailleurs handicapés du secteur médico-social),⁵ asked the GHPSJ to help it to allow nursing staff with restricted physical ability to continue working. The conclusion of this work was that all carrying methods cause harmful consequences for professionals. Additionally, handling aids were often under-used or considered to be detrimental to patients' independence.

¹ Paris Saint-Joseph Hospital, 'Le soin de manutention', available at: <https://www.hpsj.fr/hopital/centre-ressources/le-soin-de-manutention/>

² See: <https://en.inrs.fr/>

³ Gayet, C. (2020). La prévention des tms centrée sur le soin. *Hygiène et sécurité du travail*, 258, 6-11. <https://www.inrs.fr/dam/inrs/CataloguePapier/HST/TI-DC-26.pdf>

⁴ The full report is available at: <https://osha.europa.eu/en/publications/musculoskeletal-health-and-risk-factors-hescare-sector-review-existing-information>

⁵ See: <https://www.oeth.org/>

The ALM approach was therefore built around a dual objective: to protect the health of carers while enhancing the abilities of patients and ensure greater safety and comfort for patients. It is based on several key principles:

- **Individual adaptation:** Each care situation is unique and must be adapted to the patient's abilities at the time of handling or transfer. These abilities are assessed movement by movement, and each time patients are being cared for, as their condition can vary throughout the day.
- **Spontaneous mobility:** Carers rely on the natural movements that patients can make on their own, substituting only those movements they are unable to perform.
- **Handling as care:** Handling is conceived as a component of care. By involving patients in their own movements, it encourages their autonomy and active participation.
- **Use of technical equipment:** Equipment (patient lifts, sliding sheets, etc.) are integrated to supplement the patient's abilities when he or she cannot carry out one or more movements, and if verbal support or support through handling without carrying a harmful load cannot be the solution.

Box 1: The 'expected outcomes' of the ALM approach⁶

The carer gets to know the **sequence of the different movements** involved in spontaneous human movement (standing up, sitting down, lying on one's side, getting up in bed, etc.). This enables them, in addition to the information included in the follow-up of each patient, to **assess for each action**, movement by movement what the patient can or cannot do alone.

The carers know the **characteristics of the handling equipment** (bed, sliding sheet, patient lift, etc.).

For each movement that the patient cannot perform alone, the carer chooses the type of assistance to provide and organises the environment so that the movement is performed in conditions that protect the health and safety of both parties:

- **Verbal:** The carer guides, explains, encourages and stimulates the patient to move.
- **Physical:** Providing limited physical assistance, ensuring that the effort remains safe for the carer's own health.
- **Equipment:** If necessary, it incorporates adapted technical aids, such as a sliding sheet, a traction handle or a patient lift for material assistance.

There is no standard, no standardised 'handling techniques'; the ALM approach relies on **adapting work to people** and not adapting people to work.

Source: <https://www.inrs.fr/dam/inrs/CataloguePapier/HST/TI-DC-26.pdf>

Effective implementation of the ALM approach also requires appropriate equipment and organisation. This means that the equipment must be designed and chosen with this in mind. The patient's environment needs to be adapted, such as: H-shaped ceiling rails, space around the bed, moving the chair closer to the bed when moving from one to the other.

Box 2: Example: choice of chair⁷

In many establishments, chairs are deep and patients are unable to get out of them on their own. However, a chair chosen for the quality of its seat, backrest and armrests, or even with a jack, allows the person to get up and sit down independently. Each time a person wants to get up, this type of chair saves the carer from having to handle the patient and avoids possible back injury.

Source: INRS - <https://www.inrs.fr/media.html?refINRS=ED%206415>

⁶ Gayet, C. (2020). La prévention des tms centrée sur le soin. *Hygiène et sécurité du travail*, 258, 6-11. <https://www.inrs.fr/dam/inrs/CataloguePapier/HST/TI-DC-26.pdf>

⁷ INRS (2024). *La démarche ALM - Accompagner la mobilité*. <https://www.inrs.fr/media.html?refINRS=ED%206415>

It is also essential that carers are familiar with the functions of this equipment and that they are easily accessible and in good working order. In addition, the involvement of healthcare managers and management is crucial to the success of this approach.

In order to guarantee a successful implementation, the ALM approach is now integrated into two training courses proposed by INRS:⁸ The Prap 2S (Prevention of risks related to physical activity in the health and social welfare sector), and APS-ASD (Injury prevention for homecare and support workers) training courses. They both provide modules designed for three distinct audiences (managers, supervisors and carers):

- **For managers:** To encourage them to invest in employee training and the purchase of appropriate equipment;
- **For supervisors and facilitators:** To pass on the ALM approach to carers, for the layout of premises, financial aspects and the choice of support equipment; and
- **For carers:** To learn how to implement the ALM approach.

INRS has produced a webinar devoted to the ALM approach.⁹ It is aimed at all those involved in occupational risk prevention in the home care and assistance sector and in care establishments.

Ten short films¹⁰ produced by the INRS are also available to provide information on the ALM approach and show how it can be applied in everyday care. The main message of these films is to eliminate the need to carry when 'handling' a patient by integrating technical aids (transfer aids) into the care activity: helping a person to get back into bed, get out of a chair, sit down and so on.

Box 3: Implementing the ALM approach at Lariboisière - Fernand-Widal - Saint-Louis hospital group

At the Lariboisière - Fernand-Widal - Saint-Louis hospital group, a health executive took the ALM training course in spring 2018. She observed that this approach was well received by her colleagues, as it was perceived as a sign of attention paid to their health. Each establishment in the group had a trainer who relayed the implementation of the approach, as a priority in departments identified as accident-prone or with volunteering work.

Practical sessions, lasting five to six hours in total, were organised to practice the method using the equipment available (sliding sheets, jib, traction handles, bed functions). These training sessions included observation of spontaneous movements, memorisation of the steps and verbal support, with the possibility of direct application with patients.

Although figures for a reduction in work-related accidents or absenteeism are not available, some tangible positive effects of the ALM approach were noted. The care departments have gained greater autonomy in identifying their equipment needs or in fitting out their premises, thus becoming their own specifiers. Requests were now precise, well thought out, and adapted to the abilities of patients and the requirements of care.

It also had other relevant outcomes:

- **Raising patient awareness:** Patients were involved in the process from the moment they arrived. The equipment needed for safe mobilisation was included in their care plan, improving both their comfort and the safety of carers.
- **Trainee training:** At Fernand-Widal, which specialises in geriatrics, all trainees received training in handling care from a relay trainer. A genuine culture of MSD prevention was gradually being established. Caregivers reported that the new practices were not only more comfortable for them, but also encouraged greater patient involvement and improved the patient/caregiver relationship.

Source: INRS - <https://www.inrs.fr/media.html?refINRS=DC%2026>

⁸ INRS (2020). *Formations Prap 2S et APS ASD : intégration de la démarche d'accompagnement à la mobilité de la personne aidée en prenant soin de soi et des autres (ALM)*. <https://www.inrs.fr/actualites/formations-prap2s-aps-asd.html>

⁹ The webinar is available (in French) at: <https://www.inrs.fr/media.html?refINRS=Anim-208>

¹⁰ The 10 short films are available (in French) at: <https://www.inrs.fr/actualites/videos-tms-soin-personne.html>

However, the involvement of healthcare managers was essential in recruiting and motivating healthcare workers to take the training. Their commitment was a prerequisite for the successful adoption of the approach.

What are the results?

The ALM approach helps to reduce work-related accidents and diseases, while also reducing work absences linked to MSDs. By integrating the prevention of handling-related risks into the care process, it has helped to reduce the number of days lost due to accidents at work by a factor of 10 in less than 10 years in a hospital group that has tried it out.¹¹

For carers, MSK risks are prevented as well as the risks of becoming unfit for work. With the ALM approach, people with activity restrictions or pregnant women can continue to work without risk. It enhances the value of the care professions, making them more attractive, and acts as a lever for safer and more efficient practices. It improves their working conditions, with fewer harmful physical exertions.

For establishments, this approach means fewer days off work. An evaluation carried out by the INRS in one establishment (in 2009) showed that investment in equipment and training to prevent the risk of MSDs in handling care (since then formalised as part of the ALM approach) paid for itself in just over three years, thanks to a 60% reduction in days lost due to accidents at work.¹²

For patients, handling becomes care in its own right, improving their comfort and ensuring their safety, as well as the patient/carer relationship, thanks to an approach centred on their abilities. Involving patients in their own movements helps to maintain their independence.

Finally, although the number one objective is the prevention of MSDs, the ALM approach also helps to **prevent falls** by the people being cared for and consequently, by carers. A simple test prior to standing consists of ensuring that the patient has the ability to support the weight of their body on their legs. If the test is inconclusive, an assistive device should be used to overcome this temporary or permanent incapacity. If a person is in danger of falling, he or she should not be put on their feet. This not only avoids endangering the patients, but also the carers, whose reflex is to restrain the fall, a reaction that often results in a lower back injury.¹³

The ALM approach is a major development in the prevention of MSDs and in patient care. By focusing on adapting care to patients' abilities and protecting carers, it reconciles quality of care and health in the workplace. It is a model to be followed by the entire HeSCare sector, with clear benefits for all stakeholders.

The main differences between a classical approach and the ALM approach can be summarised in this table:

Table 1: Summary of differences between a classical approach and the ALM approach

A 'CLASSIC' CAREGIVER CULTURE	THE 'TARGETED' CAREGIVER CULTURE (INCLUDING A CULTURE OF PREVENTION, PARTICULARLY MSDs)
Overall assessment of the patient's ability to perform the considered movement before carrying it out.	Assessment of the patient's abilities movement by movement of the mobility to be carried out.
Assessment of abilities within a framework specific to the caregiver.	Assessment of abilities within a shared and common reference framework: measuring which movements are achievable to determine the required assistance (standing up, sitting down, straightening up or turning to the side in bed, etc.).
Periodic assessment (care record, etc.).	Systematic assessment for each mobility.

¹¹ Gayet, C. (2020). La prévention des tms centrée sur le soin. *Hygiène et sécurité du travail*, 258, 6-11. <https://www.inrs.fr/dam/inrs/CataloguePapier/HST/TI-DC-26.pdf>

¹² Trontin, C., Glomot, L., & Sabathe, J. P. (2009). *Analyse coût-bénéfice des actions de prévention. Exemple du risque de manutention pour le personnel soignant*. INRS. <https://www.inrs.fr/media.html?reflNRS=ND%202310>

¹³ Gayet, C. (2020). La prévention des tms centrée sur le soin. *Hygiène et sécurité du travail*, 258, 6-11. <https://www.inrs.fr/dam/inrs/CataloguePapier/HST/TI-DC-26.pdf>

A 'CLASSIC' CAREGIVER CULTURE	THE 'TARGETED' CAREGIVER CULTURE (INCLUDING A CULTURE OF PREVENTION, PARTICULARLY MSDs)
Assistance with movement as a whole according to a single modality, often manual with harmful lifting, or material assistance. The person does not perform the movements they are capable of doing alone.	Assistance movement by movement according to different modalities (verbal guidance, manual assistance (excluding harmful lifting), material assistance), which may vary for each movement. The person performs the movements they are capable of doing alone.
Generic and standardised assistance with movement.	Singular assistance for each movement.
Equipment (furniture, technical aids, lifting devices or slide sheets) chosen independently of the ability to perform basic spontaneous movements.	Provision of equipment (furniture, technical aids, lifting devices or slide sheets) that contribute to performing basic spontaneous movements.
Handling techniques and gestures reproducible for all patient care, taught in initial training, transmitted among peers.	A reproducible approach for all types of care, which builds a unique, shared treatment within collective professional practices, to become a standard in the profession.
Training of professionals in the safe use of equipment.	Integration of equipment into the movement to be performed, chosen for its specific characteristics, to assist with the movements that the patient cannot perform alone.

Source: INRS - <https://www.inrs.fr/media.html?refINRS=DC%2026>

Success factors and challenges

As with all prevention initiatives, the ALM approach implies new professional practices for healthcare workers, as well as a culture of prevention shared by decision-makers. The latter need to understand all the issues at stake if they are to adopt a work organisation that will enable it to be implemented effectively. The ALM approach relies mainly on adapting work to people and not adapting people to work. The success of the ALM approach depends on involvement at all levels:

- **Hospital management:** Managers need to understand the stakes involved in preventing MSDs, both for the wellbeing of staff and patients as well as for the financial gains (reduced work absences).
- **Middle managers:** Healthcare managers play a crucial role in encouraging healthcare workers to adopt this approach and in facilitating their training and implementation in their working practices.
- **Training:** Specific modules are offered to carers to help assess patients' abilities and integrate technical aids.
- **Technical fittings:** The working environment needs to be adapted (installation of ceiling rails, layout of bedrooms and communal areas).

The main challenge in implementing the approach is agreeing to invest time in training teams and giving them time to integrate the approach into their work. This is something that decision-makers understand very quickly when it is explained to them or even demonstrated to them.¹⁴

In 2023, the INRS launched a study to assess the impact of implementing ALM on reducing accidents at work and pain in the back and upper limbs in collaboration with accommodation establishments for dependent elderly people (établissements d'hébergement pour personnes âgées dépendantes - EHPAD). The study will run from 2023 to 2028. Participation will involve both the management of the establishment and the workers, who will be required to take the Prap 2S training course. To take part in the study, three conditions must be met: (i) the establishment must be providing accommodation for dependent elderly people (EHPAD); (ii) it must have been in existence for at least five years; and (iii) it must be committed to rolling out the ALM approach by training its staff in Prap 2S.

¹⁴ Stakeholder interview.

The study has two main components:

- Involvement of EHPAD management:
 - annual completion of an online questionnaire on the organisational, structural and contextual characteristics of the establishments, and
 - transmission of social and administrative data, including accidents at work, from administrative databases.
- Voluntary workers:
 - every six months, the volunteer carers in charge of the residents will complete a questionnaire on their professional activity and their own health.

This approach will make it possible to implement changes in care practices and identify the effects of ALM training on the health and safety of carers.

Transferability to other EU Member States

This innovative approach can easily be transferred to other EU Member States. Spontaneous movements are universal and should be the benchmark for enabling carers to assess the movements that the person can and cannot perform, supplementing only those movements they cannot perform.

It is however necessary to be ready to change the culture of prevention when adopting this approach as it is not simply a tool, technique or method; the ALM approach relies on eliminating harmful manual handling and adapting the work to people. The approach also introduces changes for the patient–carer relationship thanks to an approach centred on the patient's abilities.

Information required to implement the approach is available on the INRS website, along with training guidelines for managers, supervisors and carers.

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[Recherche] Ehpads : participez à une étude de l'INRS: <https://www.inrs.fr/actualites/recherche-etude-ehpad.html>

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In this case study, interviews were performed with the expert adviser of the 'Help and care for the person' at the INRS.¹⁵

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¹⁵ See: <https://www.inrs.fr/>