MER HEMDIALYS
FÖR BÄTTRE HÄLSA, LIVSKVALITET OCH KOSTNADSKONTROLL

PROJECT REPORT

Bridging the Distance: A Report on Redesigning Home Dialysis Communication

MER HEMDIALYS

för Hälsa, Livskvalitet och Kostnadskontroll

genom ett Personcentrerat Arbetssätt

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Executive Summary

This Executive Summary outlines the findings of Work Package 2.3 (WP 2.3) within the cross-border "Mer Hemdialys" (More Home Dialysis) project. The project is primarily funded by the European Regional Development Fund through **Interreg Öresund-Kattegat-Skagerrak (ÖKS)**, an EU cross-border cooperation programme bringing together southern Sweden, Denmark, and Norway, and is complemented by contributions from the project's partner organizations. The project explored how to design safety (*Trygghet* / *Tryghed*) from a distance for home dialysis patients across the participating regions.

Initially, the project identified a barrier in the Swedish PD clinic: the "synchronous trap. The reliance on phone calls as the primary communication tool led to clinical staff being interrupted and patients hesitating to report everyday concerns. To operationalize Person-Centered Care (PCC), the team used Design Thinking methodology to shift the treatment goal from merely "surviving" to "surviving and thriving".

Through prototyping and live testing, the project demonstrated that asynchronous digital communication (chat) effectively bridges the distance between the clinic and the home. Key recommendations include:

- **Complement with asynchronous chat** with guaranteed response times to reduce stress and seamlessly handle administrative tasks like logistics and supply orders.
- **Validating "emotional data"** through simple concepts like the "Digital High-Five" to build patient confidence and empower independence.
- **Decoupling communication apps from medical hardware** to allow early pre-dialytic onboarding via patients' personal smartphones, building trust early on.
- **Support the natural role of experienced home dialysis patients as informal mentors** ('self-taught specialists') and, over time, develop digital structures to scale up this peer support..

Ultimately, combining asynchronous digital tools with a shift in clinical mindset creates a person-centered partnership, enabling patients to dictate the dialysis according to their lives, rather than dictating their lives according to the dialysis.

Sammanfattning

Denna sammanfattning beskriver resultaten från arbetspaket 2.3 (WP 2.3) inom det gränsöverskridande projektet "Mer Hemdialys". Projektet finansieras i huvudsak av Europeiska regionala utvecklingsfonden genom **Interreg Öresund-Kattegat-Skagerrak (ÖKS)**, ett EU-program för gränsöverskridande samarbete som knyter samman södra Sverige, Danmark och Norge, med kompletterande bidrag från partnerorganisationerna i de tre länderna. Projektet undersökte hur man kan designa trygghet på distans för hemdialyspatienter i de deltagande länderna.

Inledningsvis identifierades ett stort hinder: den "synkrona fällan". Beroendet av telefonsamtal som primärt kommunikationsverktyg samtidigt som patienter drog sig för att ringa om vardagliga problem. För att operationalisera personcentrerad vård (PCC) använde teamet metodiken Design Thinking för att skifta behandlingsmålet från att bara "överleva" till att överleva och faktiskt leva ("survive and thrive").

Genom prototyper och tester samt analys av referensimplementationer i verklig miljö indikerade resultaten att asynkron digital kommunikation (chatt) kan överbrygga avståndet mellan kliniken och hemmet. De viktigaste rekommendationerna inkluderar:

- **Att komplettera kommunikationen med asynkron chatt** med garanterade svarstider för att minska stress och smidigt hantera logistik och materialbeställningar.
- **Att validera "emotionell data"** genom koncept som en "Digital High-Five" för att bygga patienternas självförtroende och självständighet.
- ~~Att~~ **frikoppla kommunikationsappar från medicinsk hårdvara** för att möjliggöra tidig introduktion i den pre-dialytiska fasen via privata smartphones och därmed bygga förtroende tidigt.
- **Stödja erfarna hemdialyspatienters naturliga roll som informella mentorer** ("egenlärda specialister") och på sikt utveckla digitala strukturer för att skala upp detta kamratstöd.

Sammanfattningsvis indikerar resultat från intervjuer och tester att det är möjligt att stödja patienter att styra dialysen efter livet, snarare än att styra livet efter dialysen.

Introduction and Background

The Initial Assignment and the Challenge of Distance

Work Package 2.3 (WP 2.3) of the "Mer Hemdialys" (More Home Dialysis) project was established with a clear, critical directive: **to develop and test communication tools between patients and healthcare providers to facilitate and support home dialysis** as a part of the project *More Home Dialysis for Health, Quality of Life and Cost Control through a Person-Centred Approach* (September 2023 – August 2026), funded by the European Regional Development Fund through **Interreg Öresund-Kattegat-Skagerrak (ÖKS)**. Interreg ÖKS is an EU cross-border cooperation programme bringing together southern Sweden, Denmark and Norway. Programme co-financing has constituted the primary source of funding, complemented by contributions from the project's partner organisations across the three countries. The overall aim of the project is to increase the proportion of dialysis patients who carry out their treatment at home, with clear benefits for patient quality of life, health outcomes and societal economics.

At the project's inception in late 2024, the team embarked on a cross-border discovery phase across Sweden, Denmark, and Norway to explore the realities of decentralized care. Following the project wide (results shared and used also by other work packages) extensive in-depth interviews and observations with patients and staff in the project participant countries, a Synthesis Workshop was held on March 25, 2025, the results of which were formulated into eight assumptions to be shared within the project and later also was used to decide what challenges to address and further define in concepts, tangible and experiential prototypes to be tested with users. The foundational question that defined this initial assignment was: **"How do you design safety (Trygghet) from a distance?"**.

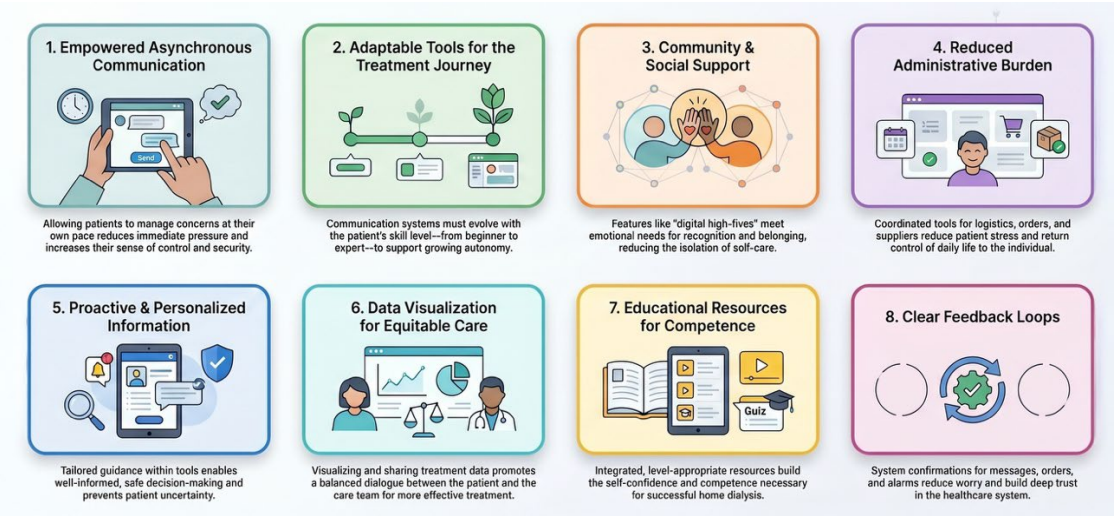


Figure 1 Communication Needs in Home Dialysis - Development Assumptions based on Interviews Synthesis

The team was tasked with identifying the gaps that occur when advanced medical care transitions from an institutional setting into the patient's home, recognizing that the challenge was not merely about transferring medical data, but about actively maintaining the human relationship between the patient and the caregiver. During the initial mapping, they uncovered a significant paradox: while the clinical ambition was firmly rooted in **Person-Centered Care** (PCC), the actual communication tools utilized such as phones were rigidly "system-centered".

Working Assumptions and Hypotheses

To fulfill the assignment of overcoming these barriers, the team realized they needed a methodology to practically operationalize Person-Centered Care as described in Ekman (2020) and Ekman et al. (2011), which led them to adopt a **Design Thinking** approach. The assignment required shifting the clinical perspective to view the patient as a vital resource who actively contributes to the common effort.

An important precursor to the project's direction emerged from the very first Design Thinking sprint, where the overarching question of *"How to collaborate with a machine in order to survive?"* was powerfully reframed into: **"How to collaborate with a machine in order to survive *and thrive*?"**.
Based on these initial insights, the work package formulated central hypotheses to test in real-world clinical environment and focus and guide the future work:

Asynchronicity creates calm: Allowing communication without the demand for an immediate response (such as text or chat) may reduce stress for both patients and staff, freeing up time for qualitative interactions.

Emotional data is as important as medical data: Providing a channel for patients to share successes (like a "digital high-five") is importantfor long-term treatment sustainability as reporting blood pressure values.

Technology must lower thresholds: Communication solutions must be seamlessly integrated into everyday life; if a system is perceived as complicated, it will not be used.

Rather than building a static technical system or conducting abstract research, Work Package 2.3 focused on a person-centered, iterative approach. By leveraging cross-border insights, personas, and rapid prototyping, the team aimed to validate communication channels that cultivate a genuine sense of security "*Trygghet* / *Tryghed*" for patients and staff alike, while simultaneously promoting patient autonomy. To allow readers to follow our journey in detail, the upcoming sections adopt a narrative reporting approach. Divided into chapters, this chronicle details our progression through the discovery, prototyping, and implementation phases that ultimately established our communication model for home dialysis.

The Project Journey

Chapter 1: The Ringing Phone and the Silent Gap (Late 2024 – Early 2025)

When the "Mer Hemdialys" (More Home Dialysis) project launched Work Package 2.3, the team started with a fundamental question: *How do you design safety from a distance?* To find the answer, the team embarked on a discovery phase across Sweden, Denmark, and Norway, utilizing deep-dive interviews and clinical observations. What they uncovered was a paradox. While the clinical ambition was firmly rooted in Person-Centered Care (PCC), the actual communication tools were rigidly "system-centered."

The primary lifeline between the patient at home and the clinic was the telephone. This created a "synchronous trap". For the nursing staff in Sahlgrenska, it meant being interrupted by the phone which made it difficult to manage other tasks. For the patients, the telephone created a psychological barrier. They hesitated to call for "small" issues, not wanting to bother busy nurses, which left them sitting alone with their anxiety. Previous findings from Coeira and Tombs (1998) points towards a preference of synchronous communication between hospital staff such as phone calls due to the direct acknowledgement. However, this has been associated interruptions which could have psychological costs leading to diversion of attention, forgetfulness and errors. Asynchronous messages on the other hand let receiver choose the moment to check or reply to the message. At the time of the study, the hospital did not provide asynchronous channels of communication.

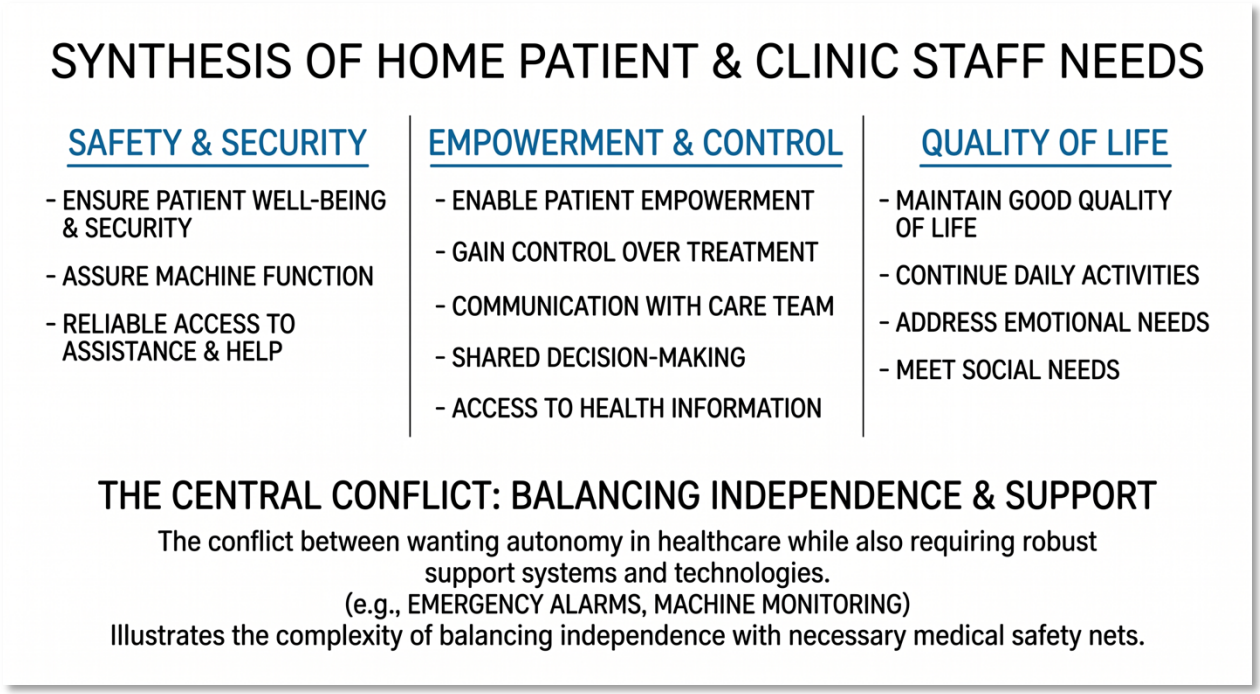
The project team realized that to truly operationalize Person-Centered Care, they couldn't just tell patients they cared; they needed a methodology to prove it. They turned to Design Thinking (Altman et al., 2018). An important precursor to the specific WP 2.3 "how-might-we" questions emerged from the very first Design Thinking sprint at the beginning of the project. Initially, the overarching question was: *"How to collaborate with a machine in order to survive?"* However, this was soon powerfully reframed into: *"How to collaborate with a machine in order to survive* ***and thrive****?"*

This profound shift is where Person-Centered Care truly anchored itself in the project. It moved the perspective to recognizing the patient as a vital resource who actively contributes to the common effort. It set the stage for facilitating a life where formulating personal goals becomes an essential dialogue—something the patient and the care team actively work toward together, rather than just managing a medical condition.

Chapter 2: A Shift in Paradigm (Spring 2025)

By the spring of 2025, after synthesizing cross-border data and presenting their initial findings at the Aarhus Partner Forum, a core insight emerged: **Trygghet/Tryghed (Peace of Mind) is the absolute foundation of home dialysis.** If a patient feels secure, they will choose and sustain home dialysis. If they feel isolated, the model fails.

However, the team realized that this need for security evolves dynamically over time. At the beginning of a patient's journey, the focus is on building trust and establishing this deep sense of Trygghet/Tryghed. But once that foundation is built, the patient's needs shift towards taking control of their own well-being and staying independent. During the discovery phase, this drive for independence was a core insight echoed by almost all patients. One quote perfectly captured this transition: *"Har du dialys på sjukhuset så styr du livet efter dialysen, har du dialysen hemma så styr du dialysen efter livet"* (If you have dialysis at the hospital, your life is dictated by dialysis; if you have dialysis at home, you dictate dialysis according to your life).



This transition creates a delicate balancing act for the clinical staff. Nurses must "let go" and allow the patient to truly own their treatment, but they still need to feel secure and informed that things are going well at home. The challenge was figuring out how nurses could monitor progress without their presence turning into an intrusion into the patient's daily life.

The team hypothesized that adding and complementing synchronous phone calls with an *asynchronous* messaging channel (chat) would address this exact balance. It would allow patients to ask questions on their own terms, fostering independence, while allowing nurses to

stay informed and respond when their workflow permitted, restoring a sense of calm and control to both sides.

A crucial part of this hypothesis involved *when* and *how* the chat was introduced. During their cross-border observations, particularly from insights gathered in Lund, the team noted that some existing digital solutions tethered the chat function directly to the dialysis machine's dedicated tablet. This created a "hardware trap": because the communication tool was not separated from the medical equipment, patients could only access it *after* they had already chosen home dialysis and started training to bring the machine home.

By decoupling the communication app from the dialysis machine and making it accessible on the patient's personal smartphone, the project unlocked the "pre-dialytic" phase. The team realized that introducing the chat early—during the decision-making and training stages—could build trust and establish that vital sense of Trygghet/Tryghed long before the patient takes the machine home. Knowing they already have a direct, familiar lifeline to the clinic might significantly lower the threshold for patients to confidently choose home dialysis in the first place.

Despite some administrative hurdles regarding GDPR and the classification of user-centered design as formal research, the team pushed forward, determined to test their hypotheses in the real world.

Chapter 3: Enter Ove and Olga – The Power of the "Digital High-Five" (Fall 2025)

The breakthrough arrived in September 2025 during a series of workshops at Mölndal Hospital. The team invited patients, clinical staff, and technical developers from the *Vård och Hälsa* (Care and Health) app to a prototyping session.

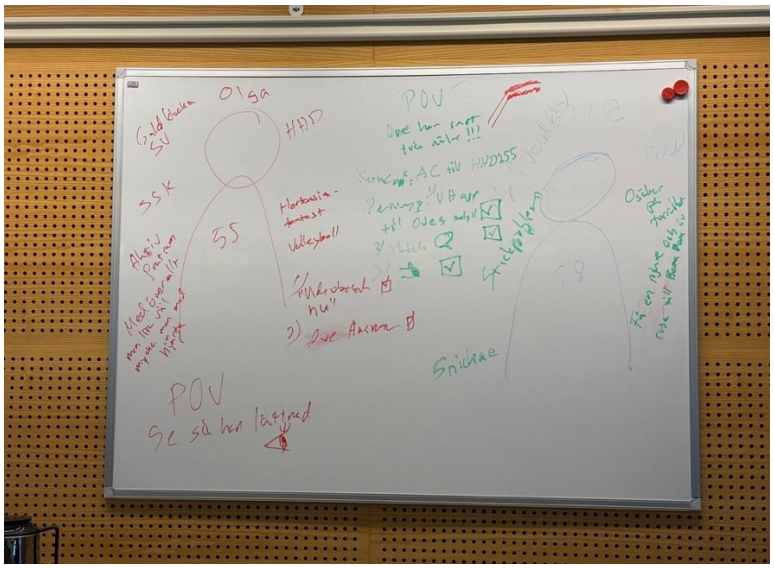


Figure 2 Personas

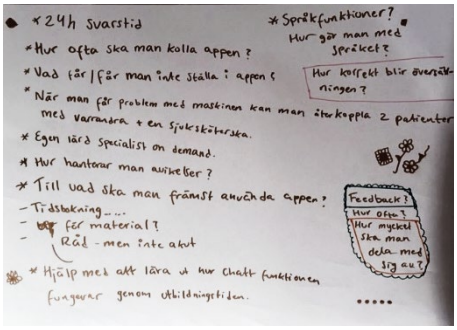
To keep the focus strictly on human needs, they created personas: "Ove," an anxious 58-year-old carpenter newly training for home dialysis, and "Olga," an engaged, chatty 55-year-old nurse.

On September 17, the team ran a 30-minute rapid prototype. In the scenario, Ove, who usually struggles, successfully inserts both of his dialysis needles. Proud and relieved, he picks up his phone and sends a quick message to the clinic. Olga sees it and responds with a "Digital High-Five" via chat, followed by a quick video call to share his joy.

The test was a revelation. It proved that the technology worked, but more importantly, it proved that *emotional data is just as vital as medical data*. The chat wasn't just for reporting broken machines or blood pressure; it was a lifeline for encouragement, visibility, and partnership. For the nurses, receiving this simple "digital high-five" provided exactly the non-intrusive reassurance they needed to safely let go, knowing the patient was thriving independently. As one nurse remarked during the test, *"Imagine if we had this 16 years ago when you started!"*

Chapter 4: Real-World Impact and New Horizons (Late 2025)

By late October and November 2025, the prototype had transitioned into live testing with real patients at Mölndal. The impact came slowly bit by bit. The chat began in a very small scale organically absorbing administrative tasks like booking appointments and ordering supplies that used to clog the phone lines.



Through continuous, small gatherings, the project members, patients and staff co-designed the "rules of engagement." They agreed that the chat was not an emergency alarm (the phone was still for acute issues), but they established a crucial 24-hour response guarantee to ensure patients felt heard.

Crucially, the team observed how the specifically *asynchronous* nature of the chat empowered the "survive and thrive" paradigm established early in the project. Because the chat removed the immediate pressure and time constraints of a synchronous phone call, patients may feel more comfortable articulating their personal goals and reflecting on their progress at their own pace. It transformed the communication from a hurried medical check-in into opportunities for ongoing, collaborative dialogue.

The chat seemed to be able to develop the literal workspace where the patient's lived experience and personal ambitions—their unique path to *thriving*—could be continuously shared and supported by the care team. This directly supported the second major insight heard universally from the patients: achieving *"Ett så mycket bättre mående"* (a much better state of well-being). By securing their independence through unobtrusive communication, patients may further know

that family life and work life could occupy a larger part of their everyday existence, rather than their treatment.

During these sessions, a groundbreaking new concept also bubbled up: the ″Egenlärd specialist" (Self-taught specialist). The team realized the chat platform could be used to invite experienced veteran patients into a three-way conversation to act as peer mentors for new, anxious patients, leveraging lived experience as a vital clinical resource. By December, the team was busy codifying these tests into the existing models and specific workflows to understand how this might enter. One of the projects participating “Egenlärd specialist" (Self-taught specialist) signed up as an available resource in the existing hospital “Levande bibliotek” (patient library) program.

Chapter 5: Scaling Up, Learning from others and Looking Outward (Early 2026 – Present)

As the calendar turned to 2026, WP 2.3 moved from the testing phase into scaling and implementation. The project continued to test the assumptions that combining the applied ethics of Person-Centered Care with the structure of Design Thinking could transform a clinical encounter from a one-way instruction into a two-way partnership.

In March 2026, preparations began for the next major milestone: expanding the asynchronous communication model to Peritoneal Dialysis (PD) patients at Sahlgrenska. Tailored onboarding materials, including personalized "health plan" templates to be filled out collaboratively via chat, were finalized.

On April 1, 2026, the Sahlgrenska rollout officially kicked off, introducing the staff to these new communication tools and how to apply them in a person-centered way of working.

On June 11 the team working with Sahlgrenska made a visit to Ahus in Norway to learn and benchmark towards what can be seen as the current best practice of chat and complementing digital tools used in home dialysis among the participating project regions.

We learned that at Akershus University Hospital (Ahus) in Norway, digital patient communication represents a profound shift from traditional, synchronous healthcare to a highly efficient, person-centered digital partnership where they practice their own “Trio” model. The evolution of working methods at the Ahus clinic in Norway began out of pure necessity when a severe lack of physical space forced them to rapidly expand their home dialysis program. Over time, this logistical challenge sparked a continuous, creative transformation into a highly structured, person-centered, and digitally supported model of care. Ultimately, their way of working, which share many of the practices in Design Thinking, evolved through a culture of testing and adapting without waiting for massive formal projects. They try new digital tools, and if a feature creates unnecessary work—like a questionnaire that no one answers—they simply drop it and try something else. The staff at Ahus explicitly noted that they "never had a project" and "never received funding" to develop their current model.

The key dimensions of how this digital communication model is structured, and its impact can be outlined as follows:

The "Trio Model" and Relationship Building An absolute cornerstone of their success is continuity. Rather than patients meeting random staff members, they use a primary care model where a specific nurse, a doctor, and the patient form a permanent "trio". This builds a strong personal relationship, you don't have to start from zero every time, which they see as essential for the future home care environment.

Asynchronous Chat Complementing the Phone The clinic utilizes a digital platform to centralize communication, actively replacing traditional non-urgent phone calls and paper notes for monitoring treatment data. To make this safe and predictable, strict guidelines are set. Patients are told not to use the app for acute emergencies, and the clinic guarantees a response within 48 hours. However, the staff typically answers much faster—checking messages in the morning, at lunch, and before leaving—which quickly builds patient trust in the system. This was described as a key factor in overcoming the change curve and making the change stick with both clinic and patients. Because the platform is accessible to the whole care team, doctors and nurses can see the same chat threads; if a doctor spots a clinical issue in a message meant for a nurse, they can easily jump in and assist.

Integrating Logistics and Supply Orders The digital platform extends far beyond simple messaging to solve major administrative burdens. Instead of calling or emailing, patients use customized digital questionnaires within the app to order their dialysis materials. Nurses tailor these digital lists so patients only see the specific items they need. These orders go directly to the supply porter (*forsyningsportør*), entirely bypassing the nursing staff and saving the clinic a "signifcant amount of time".

"Just-in-Time" Learning via Custom Videos

Figure 3 Opplæring til Hemodialyse - Hente utstyr til kateter https://vimeo.com/922339826/6830e29435

The clinic recognized that traditional 40-page, text-heavy training binders were ineffective because patients simply did not read them. In response, they used the digital platform to share short, custom-made instructional videos. Because every patient watches the exact same video for tasks like washing hands or handling alarms, it standardizes the learning process. This eliminates

the confusion that used to occur when different nurses taught slight variations of a task, ultimately building better "muscle memory" and improving patient safety.

Involving Relatives with Secure Logins A unique aspect of this digital communication model is that relatives can be granted their own secure logins to the platform, provided the patient consents. By bringing spouses or family members into the communication loop early on, the clinic can proactively manage their expectations, provide direct information, and significantly reduce the frustration or anger that can arise when family members feel uninformed.

Remote Monitoring and Fostering "Self-Taught Specialists" The digital ecosystem allows patients to manually log their own clinical data, such as their weight and blood pressure, directly into the app. Importantly, the system allows patients to view their own treatment history. Giving patients access to this data encourages them to take ownership of their treatment, supporting their journey from passive patients to "self-taught specialists" who actively collaborate in their own care.

Video Consultations for Visual Support While text-based chat handles everyday logistics and routine questions, the platform also features a video call function. If an issue is hard to explain via text, staff and patients can initiate a video consultation, though these are typically scheduled or agreed upon in advance via the chat to ensure both parties are ready.
Crucially, the success of this digital communication model lies in the fact that it is not perceived as "one more thing" for the staff to do; because it effectively removes the constant interruptions of phone calls, it significantly improves their daily workflow.

Another gem found at Ahus was an instruction intended for emergency personnel that describes how to safely disconnect a person during treatment in case that the person is unable to do this on their own which would effectively trap the person until someone remotely could be found to describe the procedure. All these details add their part to establishing “Trygghet/Tryghed”.

Now, in mid-June 2026, as the project looks toward its conclusion, the focus has shifted outward. The goal is no longer just to build a tool, but to export a verified, documented model of care—sharing the story from our journey of how an asynchronous chat and a "Digital High-Five" may bridge the distance between the clinic and the living room across the Nordic region.

Recommendations and Conclusions

The core conclusion of this work package is that **safety (*Trygghet* / *Tryghed*) is important to home dialysis**. By applying Person-Centered Care and utilizing Design Thinking methodology, the project tested and verified that adding **asynchronous digital communication coupled with a shift in clinical mindset can bridge the distance between the hospital and the home**. Based on the cross-border insights from clinics in Sweden, Norway, and Denmark, we propose in Appendix A strategic recommendation for adding asynchronous digital communication well before and during home dialysis.

As we have seen at the clinics that have been part of this effort they have adopted a variety of

digital solutions in their practice, and they also have different conditions that set limits for adopting tools and practices in their daily work. Learning from each-other and establishing and sharing best practices may open a way forward and, as we have discovered, most of the tools used in the various clinics are not specific to home dialysis and were in most cases developed for diagnoses with vastly more users treating themselves in their homes. At Sahlgrenska the tools used for chat (and also capable of multiparty capable video) was “discovered” inside a self-care remote monitoring (egenmonitorering) system hidden in plain sight under the menu label “Asynk meddelanden” (“Async messages”) which says more of the underlaying technology and protocol than the intended usage – chat, messaging, snap or DM as we gotten used to on our smartphones for decades, and wording do matter, fortunately the patient facing smartphone app and web app did not follow this naming. Since the system was already used at the clinic for blood pressure reporting the administrative burden of getting started was minimal and not bound to specific hardware or vendor, usable at scale during and still available and supported after the project ends. However as in many of the systems used by the clinics, collecting metrics and form data was the primary design goal and human to human dialogue was further down the list or a later addon. As in the case of Ahus resourcefully adapting these tools to the needs of all the resources engaged in care, including the patient’s own as practiced in Person Centered Care, is a challenge among many that home dialysis clinics have taken on and overcome. As we have seen in other parts of the Mer Hemdialys project, the benefits justify the effort.

We also recognize there are blockers that might slow down or even stop efforts. Among those identified during the project are insufficient level of integration towards patient journal systems and staff needing to login in yet another system as seen in Sahlgrenska (ironically this would not have been the case in the discontinued rollout of the new journal system). Another integration that might be lacking support is the ability to connect to the home equipment like scales, blood pressure or dialysis machines even if that was not a blocker in Ahus case.

Then there is the catch-22 of having many patients in the old and few in the new. Here we saw a significant difference between Home Hemodialysis (HHD) and Periodontal dialysis (PD) where the numbers are higher and the inflow greater in some cases for PD. As with Assisted PD in Lund which were the first to use digital communication and chat for the home care staff to keep in touch the clinic from the homes, which later was extended to include also patients managing their own treatment at home too. For Hemodialysis in Ahus the Self-dialysis in Hospital also use digital patient communication while in Sahlgrenska they decided to not include this category in the testing in general which makes the numbers drop even further, and catch-22 kicks in for HHD and fall back while PD may be able to make the change.

APPENDIX A:

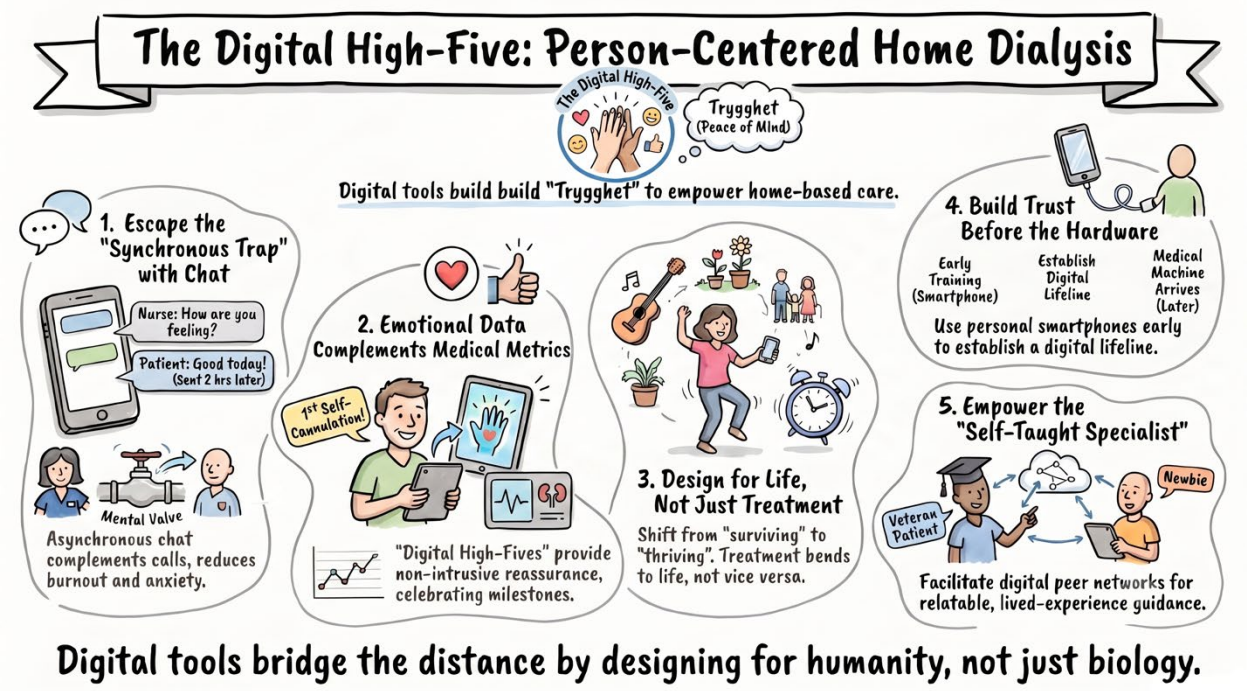
The Digital High-Five: A Person-Centered Model for Building Trust and “Trygghet/ Tryghed” at a Distance

5 Lessons from the Frontlines of Home Dialysis Innovation

In the sterile, high-tech corridors of a modern hospital, patients are often surrounded by experts yet feel like passive recipients of care—mere cogs in a clinical machine. Paradoxically, the "Mer Hemdialys" (More Home Dialysis) project has revealed that when these same patients move life-sustaining medical procedures into their own home, given the right tools for communication that supports and maintains “Trygghet/Tryghed” (Safety), they may feel a deep, secure connection to their care team. The word “Trygghet” (Swedish, Norwegian) “Tryghed” (Danish) translates to safety or security in English, however as in the current context, culturally it carries a deeper, softer meaning that implies a profound sense of comfort, predictability, and freedom from worry - having peace of mind.

This shift represents more than a change in geography; it is a strategic move from "system-centered" to "person-centered" innovation. By applying Design Thinking to the complex world of nephrology across Sweden, Denmark, and Norway, the project identified a potential barrier to home care: the "synchronous trap."

The following lessons from the frontlines demonstrate how we can bridge this distance by designing for humanity, not just biology.



1. Escaping the "Synchronous Trap" with Asynchronous Calm

Communication in healthcare traditionally relies on the immediate: the pager, the alarm, the phone call. However, the timing of communication is as vital as the content. The "synchronous trap" forces both parties to be available at the exact same moment, creating a bottleneck that breeds nursing burnout and patient anxiety.

As was noticed in Lund Sweden and Aahus Norway (not part of the project but a reference clinic), by moving to an asynchronous chat model—featuring a guaranteed response window (ranging from 24 hours to 48 hours)—the project found the chat established a "mental valve" effectively diffused potential anxieties before they could accumulate. Patients found they could log a concern at 3:00 at night and mentally "release" it, knowing a nurse would address it during a scheduled administrative window. This restores control to the nurse’s workflow, transforming a reactive, interruption-heavy day into a proactive, manageable one leaving the phone calls to handle matters where instant and direct interaction serves the purpose of the reason to reach out best.

The strategic impact is also administrative. In the Nordic pilots and current implementations, the system which includes chat naturally absorbed the "logistics" of care—booking appointments and managing "gula boxar" (waste containers) and supplies. By digitizing these headaches,

clinicians reclaimed time for complex care, while patients gained a sense of quiet mastery over their environment.

2. The "Digital High-Five"—Why Emotional Data Complements Medical Metrics

Strategic healthcare innovation often obsesses over "hard" data: blood chemistry levels, blood pressure and lab results. While clinically vital, these metrics do not provide the emotional "fuel" required to sustain home care for a decade or more. The project discovered that "emotional data" is complementing foundation of long-term success.

To test this, the team moved from the boardroom to the bedside, using the persona of "Ove"—an anxious 58-year-old carpenter—to stress-test the emotional limits of the technology. In one simulation, Ove successfully inserted his own dialysis needles for the first time. He sent a quick message to his nurse, "Olga," who responded with a "Digital High-Five" via chat.

"Imagine if we had this 16 years ago when you started!" — Nurse reflection during prototyping

This simple exchange is a clinical milestone. It provides the non-intrusive reassurance nurses need to "let go" and allow the patient to thrive. Furthermore, the Norwegian *MyDignio* model introduced a secondary strategic layer: **relative logins** (*anhöriginloggning*). This allows family members to voice private concerns to nurses without the patient seeing, ensuring the "human-centric" design supports the entire domestic ecosystem, not just the individual.

3. The "Survive and Thrive" Pivot—Designing for Life, Not Just Treatment

During the initial Design Thinking sprints, the project underwent a profound philosophical shift. The team moved from asking, *"How do we collaborate with a machine in order to survive?"* to the more ambitious: *"How do we collaborate with a machine in order to survive **and thrive**?"*

This reframing is the essence of Person-Centered Care (PCC). It transforms the patient from a "passive recipient" into a "vital resource" and partner. When the goal is thriving, the treatment must bend to the person's life, rather than the person bending their life to the treatment. As one participant noted:

"Har du dialys på sjukhuset så styr du livet efter dialysen, har du dialysen hemma så styr du dialysen efter livet." (If you have dialysis at the hospital, you dictate your life according to the dialysis; if you have it at home, you dictate the dialysis according to your life.)

This mindset change allows patients to integrate dialysis into work and family life. The fiscal results are equally compelling: in Norway, the shift toward this digital-first, person-centered model allowed physical home visits to be reduced from once a month to once every three months, dramatically lowering the system's carbon footprint and operational costs.

4. Breaking the "Hardware Trap"—The Case for Pre-Dialytic Connection

A significant strategic risk in home care is the "Hardware Trap." In some models the communication tools are tethered to a dedicated medical tablet. This means patients only gain a digital lifeline *after* they have committed to home dialysis and received their machine.

By contrast, the Norwegian model utilizes the patient’s personal smartphone. Decoupling the app from the machine allows for intervention during the "Startblokka" (the decision-making and training phase). Introducing the chat early builds Trygghet/Tryghed, long before the patient is alone. If a patient feels connected to their team via an app they already use for podcasts or banking, they are significantly more likely to confidently choose home care. This early trust-building reduces long-term clinical friction and lowers the threshold for independence.

5. From Patient to "Self-Taught Specialist" enabling Peer Mentorship

The final lesson involves a radical rethink of clinical expertise. The project identified the strategic value of the *"Egenlärd specialist"* (Self-taught specialist)—veteran patients whose lived experience is a clinical resource.

The vision is to move the nurse from "sole expert" to "facilitator of a peer network." By using digital platforms to host three-way conversations, clinicians can implement a peer mentoring practice that facilitates both practical and emotional learnings based on veteran patients who possess lived experience. In these sessions, a veteran patient can offer the relatable, emotional guidance that a clinician—no matter how skilled—cannot. This turns the patient into an asset rather than a cost center.

Recommendations and Conclusion: The Future is Asynchronous and Human

The "Mer Hemdialys" project across Sweden, Norway, and Denmark suggests that digital tools do not replace the human touch; they bridge the distance where physical presence is impossible. We see a landscape of varying digital maturity—from Aarhus, where email and phone remain the preferred "human" link, to Norway, where video calls have evolved from "technical control" to a tool for "social closeness." A common factor of making it or breaking it has been the level of integration with existing systems used by the clinic staff, adding yet another place to login to and check status becomes a potential hurdle that need to be assessed and addressed to before attempting the rollout of new tools.

Ultimately, this seemingly incremental innovation of introducing an asynchronous chat model, something we nowadays take for granted in everyday life keeping in touch with friends and colleagues at work, may transform advanced medical treatment into a manageable background rhythm of a full life. If we can build this level of trust and security for something as complex and high-stakes as home dialysis, what other areas of healthcare are still waiting for their "Digital High-Five".

APPENDIX B: References

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APPENDIX C: Abbreviations

Ahus: Akershus University Hospital / Akershus universitetssykehus.
EU: European Union.
GDPR: General Data Protection Regulation *(Note: The abbreviation is used in the text, though not explicitly spelled out in the report).*
HHD: Home Hemodialysis.
PCC: Person-Centered Care.
PD: Peritoneal Dialysis. (Note: On page 13, it is also written as "Periodontal dialysis", which is likely an autocorrect typo in the original text that you might want to correct to Peritoneal).
WP: Work Package.


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