



Concepts for Adults with chronic kidney disease (CKD) requiring regular dialysis treatment. Initiation and ongoing management of dialysis therapy for CKD patients. Urban and rural dialysis centres across public and private healthcare facilities.

Concepts

Professional Summary

The following concepts have been developed to advance understanding and transformation of the real lived experience (RLX) of adults with chronic kidney disease (CKD) requiring regular dialysis treatment in India. The focus is placed on the initiation and ongoing management of dialysis therapy within urban and rural dialysis centres in both public and private healthcare facilities. A key attention is given to the affects, tendencies, and systemic challenges these individuals face, including treatment adherence difficulties, resource constraints, and the complex dynamics involving caregivers. The concepts aim to engage intensity before fixed identity categories and to perceive the field rather than isolated individuals, thereby supporting multi-stakeholder engagements that include patients, caregivers, healthcare professionals, administrators, and policymakers.

Each concept is designed to be expressive and relational, moving beyond mere intervention to support transformation within the flow of lived experience. They address social, economic, environmental, and political conditions that shape access and quality of dialysis care, with particular emphasis on inclusivity for underserved populations. Differentiation from existing practices is highlighted through novel configurations that make virtual possibilities perceptible and attend to what is not yet legible within current healthcare delivery systems.

The concepts also consider the role of technology, service design, organisational collaboration, and environmental adaptations to enhance duration and intensity of patient experiences, rather than focusing on isolated moments. In doing so, they uphold a balanced view which recognises difference in kind, supports co-creation with more-than-human actors, and encourages undoing stuck tendencies to enable new pathways for health and wellbeing.

Initial Concepts

Dialysis Experience Navigator – Umio

Concept Summary

What it does and addresses

The Dialysis Experience Navigator is a relational service ecosystem designed to perceptibly map and communicate the evolving lived experience of adults undergoing dialysis treatment. It functions as a multi-sensorial, multi-modal interface embedded within dialysis centres that supports patients, caregivers, and healthcare staff to dynamically share and interpret real-time affective states such as fatigue, anxiety, hope, and cognitive shifts. This concept addresses the pervasive uncertainty, fragmented concentration, and shifting identity that CKD patients face by making these affects visible and collectively tangible in the clinical environment.

By moving beyond isolated clinical data and incorporating embodied sensations and social feedback loops, the Navigator reconfigures the dialysis journey as an emergent field rather than a linear protocol. It attends to the temporal duration and intensity of experience, allowing for anticipatory adjustments to treatment, environment, and emotional support that respond to the patient's changing state. This relational approach fosters a shared awareness that enhances understanding, empathy, and coordinated care.

Value and impact

This concept's value lies in its capacity to surface the often invisible, fluctuating sensations that structure patient experience, thus enabling more responsive, patient-centred practices that go beyond medical metrics. By co-composing experience within the treatment flow, it can improve adherence, reduce cognitive and emotional burdens, and mitigate feelings of isolation or distrust. It also empowers caregivers and staff by providing a live, accessible narrative of patient states that informs decision-making and relational engagement.

The potential impact extends to improving treatment outcomes by fostering resilience and hope, reducing crises related to non-adherence, and enriching social and cultural interactions around care. It rebalances power relations by validating subjective experience alongside clinical data, thereby offering a more holistic ecosystem of support.

Differentiation

Unlike existing monitoring tools focused solely on biomedical indicators or digital health apps that isolate self-reporting, the Navigator integrates embodied affect with social and environmental cues within a shared space. It resists reduction to data points, instead presenting experience as layered, complex, and interactive. It also harnesses more-than-human co-creation by integrating environmental sensors that detect ambient conditions influencing patient comfort and cognition.

Communicating the value

Communication must emphasise how the Navigator enriches the relational fabric of care, making patients feel seen and heard in ways that supplement medical treatment. Demonstrations and narratives highlighting improved communication, emotional relief, and coordinated responses will build trust. For sceptical stakeholders, evidence of reduced treatment complications and enhanced staff satisfaction will be persuasive.

Design and evolution

Initial design requires ethnographic research and sensor integration trials in diverse dialysis settings. Co-design with patients, caregivers, and staff ensures relevance and accessibility. Iterative prototyping followed by phased deployment and feedback loops will evolve the system. Partnerships with technology providers and healthcare authorities will be critical.

Barriers

Challenges include infrastructural variability, especially in rural centres, data privacy concerns, and potential resistance to new workflows. Regulatory approvals for sensor deployment and data use must be navigated. Training staff and managing technology maintenance in resource-constrained settings pose risks. Failure to engage all stakeholders meaningfully may limit adoption.

Cost, funding and revenue

Relative costs are moderate, involving hardware, software development, and training. Funding could come from public health grants, philanthropic sources, or partnerships with health technology firms. Revenue models might include licensing to healthcare providers or integration into government health

schemes.

Mobile Dialysis Resource Pods – Umio

Concept Summary

What it does and addresses

Mobile Dialysis Resource Pods are compact, transportable dialysis units equipped with modular water filtration and power systems designed to bring secure, high-quality dialysis treatment directly to underserved rural areas. These pods address the critical issue of resource scarcity anxiety and transport fatigue by decentralising dialysis delivery and reducing travel burdens. They are staffed by trained mobile teams who co-create treatment experiences with local caregivers and patients.

The concept directly confronts spatial inequity and resource distribution challenges by integrating flexible environmental controls tailored to local climatic conditions, ensuring patient comfort and safety. It also facilitates community engagement by embedding culturally sensitive personnel and educational resources within the pods.

Value and impact

This innovation expands access to dialysis in remote or resource-poor settings, alleviating travel strain and emergency risks. It addresses the affective layers of isolation and uncertainty by localising care and enabling ongoing social support networks to remain intact. By improving adherence and continuity, it has the potential to significantly enhance patient outcomes and reduce systemic inequities.

Differentiation

Unlike permanent, fixed dialysis centres that require patients to travel long distances, these pods are mobile, adaptable, and can be rapidly deployed or relocated based on demand. The design is user-centred, focusing on more-than-human co-creation by accounting for environmental variables and cultural contexts rarely considered in conventional dialysis infrastructure.

Communicating the value

Messaging should highlight increased accessibility, reduced patient and caregiver burden, and community empowerment. Demonstrations of successful deployments and testimonials from rural populations will build trust. Engagement with government and NGOs is essential to communicate sustainability and integration within existing healthcare frameworks.

Design and evolution

Design phases include engineering modular pods, testing water and power systems, and establishing mobile care teams. Pilot programmes in selected rural districts will provide data for refinement. Partnerships with local health authorities and community leaders will support adaptation and scale.

Barriers

Barriers include high initial capital investment, logistical challenges of maintenance and supply chains, and regulatory compliance around mobile medical units. Acceptance by local populations and

integration with static health services require careful coordination. Climate extremes may impose technical constraints.

Cost, funding and revenue

Capital intensive upfront, but with potential cost savings over time by reducing hospital admissions and transport subsidies. Funding could derive from government rural health initiatives, international development funds, or public-private partnerships. Revenue could be generated through service contracts with healthcare providers.

Caregiver Collaborative Network – Umio

Concept Summary

What it does and addresses

The Caregiver Collaborative Network is a coordinated platform and support system that connects informal caregivers of dialysis patients across urban and rural settings. It enables sharing of knowledge, emotional support, and resource pooling, addressing caregiver strain reflection and relational dependency. The network facilitates peer mentoring, training on treatment adherence, and real-time problem solving through moderated communication channels.

This concept recognises caregivers as central co-creators of patient experience, often overlooked in healthcare delivery. It responds to the affective burden they carry by fostering solidarity, reducing isolation, and empowering their role within treatment ecosystems.

Value and impact

By strengthening caregiver capacity and wellbeing, the network indirectly improves patient adherence, emotional stability, and recovery. It addresses systemic gaps in caregiver support services, optimising resource use and enhancing collective resilience. The social capital generated through collaboration can transform difficult lived realities and encourage sustained involvement.

Differentiation

Unlike fragmented or informal support, this network is intentionally designed as a multi-stakeholder, moderated platform that integrates local health professionals and social workers. It balances digital and low-tech access modes to include underserved groups, accounting for linguistic and literacy diversity.

Communicating the value

Communication strategies should highlight empowerment, shared learning, and stress relief. Demonstrative stories of caregiver success and patient improvement will encourage participation. Partnering with healthcare providers to endorse the network will legitimise the initiative.

Design and evolution

Co-design with caregivers and health workers, development of accessible communication tools, and pilot testing in diverse communities will inform the platform. Continuous feedback and adaptation ensure cultural relevance and responsiveness.

Barriers

Challenges include digital access inequalities, potential privacy concerns, and sustaining active engagement over time. Cultural stigma around caregiving roles may limit openness. Securing ongoing moderation and funding is essential.

Cost, funding and revenue

Low to moderate development costs, with primary investment in platform creation and community facilitation. Funding could come from government health programs, NGOs, or social enterprise models. Revenue might be derived from membership fees or service partnerships.

Environmental Comfort Modulators – Umio

Concept Summary

What it does and addresses

Environmental Comfort Modulators are adaptive micro-environmental control systems installed in dialysis centres to mitigate clinical ambience tension, environmental noise overwhelm, temperature sensitivity, and spatial vulnerability. These include adjustable lighting, soundscapes, localized climate control, and privacy-enhancing spatial elements that patients can personalise during dialysis sessions.

This concept addresses the embodied sensations of discomfort, stress, and cognitive entrapment by transforming treatment spaces into more humane, supportive environments that respect patient agency and sensory needs. It contributes to improved mental stamina, reduced anxiety, and enhanced emotional regulation.

Value and impact

By improving environmental quality and enabling patient control, these modulators reduce stress-related complications, improve treatment adherence, and enhance overall wellbeing. Staff benefit from reduced patient distress and more positive atmospheres, which can improve care quality and job satisfaction.

Differentiation

Unlike conventional static clinical environments, this concept embraces design for duration and sensory modulation, creating a dynamic and co-composed space that evolves with patient needs. It integrates more-than-human co-creation by responding to ambient conditions and patient feedback in real time.

Communicating the value

Communication should emphasise patient comfort, dignity, and empowerment, highlighting how environmental factors affect treatment success. Demonstrations and sensory trials can illustrate benefits to patients and staff. Integration with hospital administration for funding and maintenance is important.

Design and evolution

Design involves ergonomic studies, sensor technology integration, and user testing in both urban and rural centres. Continuous iteration based on patient and staff feedback ensures adaptability. Collaboration with architects and biomedical engineers is essential.

Barriers

Implementation may be constrained by infrastructure limitations, budget, and maintenance capacity. Resistance to change in clinical culture and regulatory approval for environmental modifications require navigation. Unequal access between urban and rural settings must be managed.

Cost, funding and revenue

Moderate cost for installation and upkeep, with funding possible through hospital budgets or health innovation grants. Long-term cost savings may be realised through reduced patient complications and improved throughput.

Integrated Dialysis Care Liaison – Umio

Concept Summary

What it does and addresses

The Integrated Dialysis Care Liaison is a dedicated role or team embedded within dialysis centres tasked with bridging communication and coordination among patients, caregivers, healthcare providers, and social service agencies. This concept addresses communication barriers, authority negotiation, and role re-negotiation by facilitating transparent information flow and collaborative decision-making.

By recognising and navigating power dynamics and system complexities, the liaison supports patients' autonomy and dignity, reducing cognitive entrapment and anticipatory anxiety. It also advocates for patient and caregiver needs within institutional and policy frameworks.

Value and impact

This role improves treatment adherence, patient satisfaction, and continuity of care by providing a consistent relational point. It enhances multi-stakeholder engagement and ensures that social, economic, and cultural factors are considered in treatment planning. This holistic coordination reduces fragmentation and builds trust.

Differentiation

Unlike traditional case management, the liaison role intentionally incorporates relational and affective dimensions of care, situating itself within the flow of experience. It is flexible to both urban and rural contexts and integrates advocacy with practical coordination.

Communicating the value

Clear articulation of improved patient outcomes, reduced clinical misunderstandings, and enhanced

interpersonal trust will support uptake. Sharing success stories and demonstrating system efficiencies are critical for stakeholder buy-in.

Design and evolution

Recruitment, training in relational skills and systemic navigation, and integration into existing workflows are key steps. Ongoing evaluation and adaptation based on patient and staff feedback will inform evolution.

Barriers

Barriers include funding constraints, role clarity challenges, and potential resistance from medical hierarchies. Ensuring liaison availability in resource-limited rural settings may be difficult.

Cost, funding and revenue

Relatively low cost compared to technology-heavy concepts, mainly involving salaries and training. Funding can come from healthcare providers or government health schemes. Demonstrated cost savings through reduced hospitalisation may support sustainability.

Community Dialysis Time Banks – Umio

Concept Summary

What it does and addresses

Community Dialysis Time Banks create a social currency system where patients, caregivers, and volunteers exchange time and support related to dialysis treatment logistics, emotional assistance, and practical care. This concept addresses social withdrawal, relational dependency, and caregiver strain by fostering reciprocal care networks that build solidarity and shared responsibility.

This approach shifts the experience from passive service receipt to active co-creation of care within a community context. It supports transformation by making invisible caregiving labour visible and valued, thus addressing wider social and economic conditions impacting treatment adherence.

Value and impact

By fostering mutual aid and resource sharing, the Time Banks reduce isolation, increase local support capacities, and enhance resilience among vulnerable populations. They promote empowerment and social inclusion, improving both patient and caregiver wellbeing.

Differentiation

Unlike traditional charity or service delivery, Time Banks rely on egalitarian exchange and relational dynamics, embedding care in community fabric. They adapt flexibly to urban and rural contexts and leverage existing social networks.

Communicating the value

Messaging should emphasise community strength, reciprocity, and empowerment. Stories of tangible

benefits and social connection will promote engagement. Partnerships with local leaders and NGOs will facilitate trust building.

Design and evolution

Establishing local coordinators, developing simple exchange platforms (digital or analogue), and piloting in select communities are initial steps. Continuous feedback and cultural adaptation underpin evolution.

Barriers

Barriers include trust building, management of equity in exchanges, and sustaining participation. Diverse literacy and technology access levels require inclusive design. Institutional recognition and support may be limited initially.

Cost, funding and revenue

Low cost to establish with moderate coordination expenses. Funding from social innovation grants, NGOs, or local government social welfare programs. Revenue models are not primary but could include sponsorship or integration with healthcare incentives.

Dialysis Journey Companion Kiosks – Umio

Concept Summary

What it does and addresses

Dialysis Journey Companion Kiosks are interactive information and support stations placed in dialysis centres that provide patients and caregivers with accessible, multilingual guidance on treatment processes, nutrition, resource management, and coping strategies. They address communication barriers, intellectual fatigue, and fragmented concentration by offering just-in-time, easily digestible educational content and emotional support cues.

These kiosks also enable patients to express concerns anonymously and request personalised follow-up, thus supporting anticipatory anxiety and relational dependency. The design considers low literacy and technology ambivalence to maximise inclusion.

Value and impact

By empowering patients with knowledge and agency, the kiosks improve adherence, reduce confusion, and support psychological wellbeing. They relieve staff workload by providing consistent information and promote equitable access to critical resources and guidance.

Differentiation

Unlike static posters or brochures, these are dynamic, context-aware, and culturally sensitive tools integrated within the physical spaces of care. They are designed to be tactile, visual, and auditory to accommodate diverse user needs and overcome digital divides.

Communicating the value

Clear explanation of improved patient empowerment, reduced anxiety, and enhanced communication will be necessary. Demonstrations and testimonials can build trust. Engagement with healthcare staff to promote uptake is critical.

Design and evolution

Design includes content co-creation with patients and caregivers, multilingual interface development, and piloting in a range of centre types. Ongoing updates and integration with referral pathways will ensure relevance.

Barriers

Barriers include maintenance, potential technological malfunction, and reluctance to use kiosks due to stigma or lack of familiarity. Funding and content localisation are ongoing needs.

Cost, funding and revenue

Moderate cost for hardware and content development. Funding could come from health department budgets or philanthropic sources. Revenue generation is not a primary goal but sponsorship or advertising for relevant services could be explored.

Flexible Dialysis Scheduling Platform – Umio

Concept Summary

What it does and addresses

The Flexible Dialysis Scheduling Platform is an adaptive, patient-centred digital and telephone-based system that allows for dynamic appointment management sensitive to fluctuations in patient condition, caregiver availability, and transportation constraints. It addresses anticipatory anxiety, treatment adherence challenges, and resource constraints by enabling real-time rescheduling, notifications, and peer ride-sharing coordination.

By perceiving the dialysis field as a flow of interdependent actors and conditions, it supports duration-based experience management rather than rigid momentary bookings. The platform includes multi-language support and low-tech interfaces to ensure inclusion.

Value and impact

This concept improves treatment adherence and reduces missed appointments by accommodating the lived realities of patients and caregivers. It decreases transport fatigue, enhances social support, and optimises resource utilisation at centres.

Differentiation

Unlike static scheduling systems, this platform is relational, inclusive, and responsive to changing conditions. It integrates human and technological actors and balances digital and human communication channels.

Communicating the value

Clear communication of improved flexibility, reduced stress, and empowerment will encourage uptake. Training and outreach to patients, caregivers, and centres are essential.

Design and evolution

Development includes user research, interface co-design, pilot testing, and iterative refinement. Integration with existing hospital systems and transport services will be necessary.

Barriers

Barriers include digital literacy, data security, infrastructure disparities, and organisational willingness to adopt flexible scheduling. Sustaining engagement requires ongoing support.

Cost, funding and revenue

Moderate technology development cost with potential for savings through efficiency gains. Funding from government health innovation programs or social enterprise models is possible. Revenue could come from subscription or service fees.

Localized Nutritional Support Hubs – Umio

Concept Summary

What it does and addresses

Localized Nutritional Support Hubs are community-based resource centres that provide culturally appropriate, affordable dietary guidance, food supplies, and cooking demonstrations tailored for dialysis patients. These hubs address nutrition resource management, fluctuating appetite, and financial strain by making dietary adherence accessible and sustainable.

They operate as relational spaces where patients, caregivers, nutritionists, and local food producers co-create practical solutions within the socio-economic and environmental realities of urban and rural India.

Value and impact

By improving nutritional intake and adherence, these hubs positively influence treatment efficacy, energy levels, and quality of life. They reduce caregiver burden and foster social solidarity around health-promoting practices.

Differentiation

Unlike generic dietary programs, these hubs are place-based, culturally sensitive, and participatory, accounting for local food availability, tastes, and economic constraints. They integrate social and environmental dimensions into nutritional support.

Communicating the value

Communication should emphasise practical benefits, cost savings, and community empowerment. Collaborations with local leaders and health workers will enhance credibility.

Design and evolution

Initial steps include community needs assessments, partnerships with nutrition experts, and pilot hubs. Continuous adaptation based on participant feedback and resource changes will evolve the model.

Barriers

Potential barriers include funding, sustaining supply chains, and cultural resistance to dietary change. Coordination with healthcare services and food producers is critical.

Cost, funding and revenue

Moderate operational costs with potential support from government nutrition programs, NGOs, and local enterprises. Revenue could be generated through modest service fees or sales of affordable food products.

Next Steps

Umio's Design with RLX thinking, principles, and method offer a robust framework for enterprises seeking to deeply explore, validate, and evolve these concepts into offerings that create meaningful real impact. By engaging with the dynamic, relational, and multi-dimensional nature of lived experience, Design with RLX enables the co-creation of solutions that resonate authentically with the complexities of dialysis treatment delivery in India.

To learn more about Design with RLX and how Umio can assist your enterprise in transforming dialysis care practices through these and other innovative concepts, please get in touch:



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