DIALIFE AI CARE

A Clinician-Led, Guideline-Informed AI Platform with a Digital Diabetes Twin for Personalised Diabetes Education and Ongoing Self-Management Support

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BACKGROUND

- Diabetes self-management requires continuous, personalised education, timely clarification and support between clinical visits.
- General AI chatbots often lack diabetes-specific context, clinical safeguards and integration with personal health data.

AIM

- To describe the design, clinical scope and proposed evaluation of DIALIFE AI CARE, a patient-facing AI platform for diabetes education, self-management support and personalised guidance using a Digital Diabetes Twin.

DESIGN & DEVELOPMENT

- Clinician-led, iterative development integrating diabetes care workflows, conversational AI and guideline-based knowledge.
- Content from ADA, EASD and RSSDI guidelines with local relevance.
- Web-based, voice and text interface; secure and privacy-protected.

DIALIFE AI CARE: PLATFORM OVERVIEW



Key Capabilities

- ✓ Voice AI conversations (hands-free)
- ✓ Laboratory report explanation
- ✓ Medication education
- ✓ Personalised diet & exercise guidance
- ✓ CGM interpretation & insights
- ✓ Insulin management support
- ✓ Diabetes education & FAQs

PLATFORM WORKFLOW

Patient input (voice / text / health data) → **Context & safety** (guidelines and safety checks) → **Personalised response** (plain-language education and guidance) → **Continuous improvement** (clinician review and user feedback)

PROPOSED EVALUATION

- **Reference standard**: Clinician-reviewed Q&A set across common, complex and safety-critical diabetes scenarios.
- **Evaluation metrics**: Factual accuracy, guideline concordance, completeness, appropriateness and user satisfaction.
- **Study design**: Prospective mixed-methods study in real-world users (usage, safety, perceived usefulness and satisfaction).

DIALIFE DIGITAL DIABETES TWIN



- Explain current health status
- Show trends and risk factors
- Compare treatment scenarios (e.g., adding or changing therapy)
- Support shared decision-making with the treating clinician

RESULTS: CURRENT STATUS

- A functional DIALIFE AI CARE platform is developed and in active use.
- Core modules (education, reports, medications, diet, CGM, insulin, diabetes twin) are operational.
- A safety framework and clinical boundaries are in place.

CONCLUSION

DIALIFE AI CARE demonstrates the feasibility of a clinician-led, guideline-informed AI platform for accessible diabetes education and self-management support. Its clinical accuracy, safety and impact on patient outcomes require structured validation.

KEY REFERENCES

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