

Supplementary Materials for: “Impact of Query Language on the Structure and Guideline Alignment of AI-Generated Rehabilitation Programs in Chronic Kidney Disease”

Supplementary file S1.

Supplementary Table S1. AI System Specifications

AI System	Model Version (at time of access)	Access Date & Time	Default Temperature	Generation Mode
Gemini	Gemini 1.0 Pro	12 Feb 2026, 14:30 CET	Default (0.7)	Standard text generation
ChatGPT	GPT-4.1	12 Feb 2026, 15:10 CET	Default (0.7)	Standard mode
Copilot	GPT-4-class model	12 Feb 2026, 16:00 CET	Default	Balanced mode

Supplementary Table S2. Evaluation Rubric

Domain	Definition	Indicators	Source
Guideline alignment	Consistency with KDIGO/ERA/ISN rehabilitation principles	Evidence-based exercise types; dialysis-specific adaptations	KDIGO, ERA, ISN
Clinical detail	Specificity of prescription parameters	Frequency, duration, intensity, progression, monitoring tools	[7–9,22–24]
Safety considerations	Protection of vascular access and symptom monitoring	AVF protection, contraindications, red-flag symptoms	KDIGO
Adaptability	Ability to tailor program to dialysis schedule and patient needs	Intradialytic options, home-based modifications	ERA
Structural completeness	Inclusion of core rehabilitation components	Aerobic, resistance, flexibility, balance, relaxation	ISN

Supplementary Figure S1. Methodological Flow Diagram (text version)

Flowchart: Study Workflow

- 1. Scientometric Review
 - Identification of evidence-based CKD rehabilitation principles
 - Databases: PubMed, EMBASE, Scopus, Web of Science, Cochrane CENTRAL

2. AI Interaction Phase

- Three AI systems queried (Gemini, ChatGPT, Copilot)
- Standardized prompts in Ukrainian and English
- Identical interaction conditions

3. Output Extraction

- Collection of all generated exercise programs
- Removal of duplicate or incomplete outputs

4. Expert Evaluation

- Three independent evaluators
- Blinded to AI system identity
- Structured rubric applied

5. Comparative Analysis

- Cross-language comparison
- Cross-system comparison
- Thematic synthesis

Supplementary File S1. Full Prompts

Ukrainian prompt

«Запропонуйте безпечний комплекс фізичних вправ для пацієнтів із ХХН на гемодіалізі».

English prompt

“Please propose a safe and effective exercise program for patients with CKD on hemodialysis.”