Innovative follow-up strategies: rationale, design and methodology of a telemedicine protocol in older patients affected by chronic diseases. Strat-AF Study

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Background and aims: The COVID-19 pandemic imposed significant limitations on in-person clinical follow-up for chronic conditions such as memory clinics. These restrictions underscored the need for remote monitoring tools to ensure continuity of care. In this context, we aimed to develop a telemedicine follow-up protocol designed to assess not only clinical status but also cognitive function, mood, motor abilities, functional autonomy and frailty. The ultimate goal is to evaluate the feasibility of this approach and to validate the protocol by comparing results with those obtained from an in-person clinical assessment.

Methods: The telemedicine follow-up protocol is based on a structured set of validated tools and questionnaires, selected for their reliability and suitability for remote administration. The protocol includes a clinical data collection form, Italian short version of the International Physical Activity Questionnaire (IPAQ-Short Form; motor skills), Activities of Daily Living and Instrumental Activities of Daily Living scales (functional status), EuroQol-5D-5L and 36-Item Short Form Health Survey questionnaires (SF-36; self-perceived health status and quality of life), Tilburg Frailty Indicator questionnaire (TFI, multidimensional frailty). Cognitive abilities are evaluated by means of Tele-Global Examination of Mental State and cognitive reserve of the short version of Cognitive Reserve Index Questionnaire. Finally, emotional aspects are explored through Hospital Anxiety and Depression Scale and Geriatric Depression Scale (GDS). The protocol is used in the context of Strat-AF Study, which is a longitudinal, single centre, ongoing, observational study enrolling older patients on anticoagulants for atrial fibrillation or deep vein thrombosis. Most of the selected tools are administered by a trained professional through a 25-minute telephone interview. IPAQ-Short Form, TFI, SF-36 and GDS are self-administered by patients, who can choose to complete a Google Form or a paper format, which is then delivered at the time of the in-person visit. We aim at assessing 100 patients.

Figure. Patient assessment phases

Table. Assessed domain and tools of the telemedicine follow-up protocol

Domains Assessed	Assessment Tools	Administration Mode
Clinical information	Clinical Data Form	By professional
Cognition	Tele-GEMS (profile)	By professional
	CRIq Short (reserve)	
Mood	HADS	By professional
	GDS	Self-administered
Health-related quality of life	EQ-5D-5L	By professional
	SF-36	Self-administered
Physical activity	IPAQ - Short Form	Self-administered
Functional autonomy	ADL	By professional
	IADL	
Multidimensional frailty	TFI	Self-administered

Conclusions: We propose a telemedicine protocol for the comprehensive assessment of multiple health domains for follow-up evaluation in the setting of older patients. Feasibility and validity will be critical issues.