D9.7: Ethical evaluation prior to the testing period

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Change History

Version	Date	Status	Author (Company)	Description
0.1	23/06/2025		IRLaB	
0.2	28/03/2026		Jose Luis Guerrero Quiñones (IRLaB)	In line with Dr Esther Keymolen's recommendation, I have modified the document as follows: • Added Ethics Approval from the hospital and Institute of Philosophy (Czech Academy of Sciences). • Withdrawal procedure described. • Role of and consent from patients' relatives included. • Detailed information on data collection and storage.

Executive Summary

This deliverable aims to offer a clear insight into the main ethical concerns of applying RF-sensing to palliative care in-home scenarios and exploring the associated medical implications of its implementation.

In **Section 1**, we provide an ethical assessment of the planned testing period. This assessment consists of identifying potential risks and values of the testing period and the planned steps of ethical evaluation prior to the period. In section 1 we futher give a general overview of the ethical benefits of home-based palliative care.

In **Section 2**, we explain the design of our case study for an ethical implementation of RF-sensing in palliative care, focusing on patients receiving treatment at home.

Table of Contents

Abbreviations

Abbreviation	Description
AI	Artificial intelligence
HCP	Healthcare practitioners
HOLDEN	Ethical design of holography in dense wireless networks
RF	Radio Frequency
WP	Work Package

1. Ethical assessment

For the ethical evaluation before the planned testing period of the RF-sensing technology that HOLDEN develops, we made an ethical assessment of how this technology could be used in an ethical way in home-care scenarios in palliative care. We have identified the following steps that we will take before the testing period can commence.

1. For each test case, we will obtain written informed consent for both sensing and interviews (Appendix A). In collaboration with Adam Houska (medical doctor and head of the palliative care unit of the Vinohrady Kralovské Hospital in Prague) and Barbora Steinlauf (lawyer in medical ethics) we will prepare ethical consent forms that we will consult with the selected patients. Once consent has been obtained, the testing period will last for two weeks. After two weeks, we will conduct one phenomenological interview with the patient (approximately 30 minutes) that will be transcribed for research purposes.

2. All the data that we will collect during the testing period of the RF-sensing technology will be anonymised. This includes the technology data obtained by the technology itself, which is private by design and will be developed only to detect movement patterns of the patient in their home during the day. The data also includes medical data derived from those movement patterns, which will be used to feed into analyses of the palliative care scale (see point 2 below). Finally, the data consists of transcribed interviews that will be anonymised and analysed using ATLAS to gather sociological information about patient experience concerning the use of RF-sensing technology.

3. The selected patients who agree to participate will be given full transparency of what kind of data will be obtained exactly and how it will be used for research purposes. They will be given to option to withdraw from the testing at any time for medical or personal reasons. Participants will not have to specify the reasons for potential withdrawal from the testing phase.

4. The testing group consists of highly vulnerable persons who are in an end-of-life situation. Therefore, it is not only vital that they receive appropriate medical care as their palliative care program prescribes. It is also vital that they are treated ethically in the communication with our research team. For this, we have identified sensitivity in communication and respect as key ethical values for all interactions with the participants. Moreover, we will aim for minimal interference with the daily life routine of the patients in their home situation and zero interference with their quality of life.

1.1. Identifying ethical values and risks

Together with the other partners of the HOLDEN consortium, we have identified the following key ethical values that need to be applied for the design of the specific prototype that will be used for the testing period of the RF-sensing technology in palliative care.

- The technology should be non-invasive and private.
- The technology should be reliable to the extent that the data obtained has minimal margins for error. This is important for the prototype that will be used for the testing period, but even more so for a potential end product for palliative care.
- The safety of the product is key. In no scenario should the product be harmful to patients, nor should it hinder personal values such as freedom and autonomy.

- Freedom and autonomy of patients should be promoted by the technology and the testing phase. This includes informed consent as mentioned in point 1 above. The technology should also aim to enhance the patient experience of quality of life, autonomy and freedom at home (as opposed to being constrained in a hospital situation).

1.2. Benefits of in-home palliative care

In the existing medical literature, there are several different benefits of in-home-based palliative care [1]. Some of these benefits are non-ethical, in the sense that they do not necessarily have a positive or negative ethical impact on the patient and/or their relatives, at least in a direct sense. The main non-ethical benefit that we have identified is that home-based palliative care is more cost-effective than hospital-based palliative care since the patient care in hospital environments is expensive. However, the cost-effectiveness of in-home palliative care can have an indirect ethical effect as lower costs can provide a better and more equal access to palliative care for patients, especially for those with lesser financial means.

More direct ethical benefits of in-home palliative care include improved quality of life for patients. This can take several different shapes. First of all, patients feel more comfortable at home at the end of life, where they have better access to emotional and spiritual support provided by relatives or close ones. Secondly, generally speaking, people prefer to die at home and not in the hospital, which speaks in favour of home-based palliative care. Finally, not only can the quality of life of patients improve in in-home care scenarios. Also, the patient's relatives and close ones could prefer their loved ones to be close to fully support them at the end of life.

Furthermore, there are other important factors at play when considering the benefits of in-home palliative care. Medically speaking, physical symptoms, such as pain, anorexia or anxiety, can in fact improve when patients are at home and not in the hospital [1]. Although there also exist studies that show the opposite result and highlight the importance of hospital environments for serious illnesses [2]. Therefore, situation-based decision-making seems to be salient. Finally, the COVID-19 pandemic and a growing elderly population are both indicative of the growing importance of in-home care, not just palliative care, but healthcare in general. For all of these reasons, an ethical assessment and careful consideration of the benefits of in-home palliative care are crucial. One of the aims of our study is to contribute to research about the ethical and non-ethical values and benefits of in-home palliative care.

2. Medical considerations

Prognostication plays a central role in palliative care, informing decisions about treatment intensity, hospice eligibility, and patient and family preparedness for end of life [3,4,5]. Tools such as the Palliative Performance Scale (PPS) are widely used to support clinicians in estimating survival by assessing functional domains like ambulation, self-care, and consciousness (see Appendix A for an example). PPS has been shown to correlate with short-term mortality and guide care planning across diverse settings [3,6,7]. However, scoring remains subjective and episodic, especially in home-based care, where clinicians often rely on indirect or limited observation.

Multiple studies have evaluated and compared prognostic models—including PPS, Palliative Prognostic Score (PaP), and Delirium-PaP—with varying levels of accuracy and usability in real-world palliative populations [8,9]. Even so, clinicians frequently overestimate survival, and patient understanding of prognosis remains limited [10].

Recent developments in radio frequency (RF)-based sensing offer the potential to enhance prognostication by objectively and continuously tracking functional decline. RF sensing systems can non-invasively detect ambulation, posture, and movement patterns in real-time, without requiring wearables or cameras, making them well-suited for home settings [11,12]. Importantly, such technologies must be designed not only for accuracy but also for ethical acceptability, respecting patient autonomy, privacy, and comfort.

The study has obtained ethical approval from both the Ethics Committee at the University Hospital Kralovske Vinohrady (Appendix C) and the Ethics Committee at the Institute of Philosophy of the Czech Academy of Sciences (Appendix D).

2.1. Aims of the study

First, this study explores the feasibility and prognostic utility of RF-based sensing to support PPS scoring in home-based palliative care, while also examining how such technologies can be ethically and acceptably integrated into the care of patients at the end of life. Second, the study aims to consider patients' experiences while living with the technology and its integration into diagnostic and treatment processes. The aim is to include their lived experiences in the design and development of the technology itself.

2.2. Patient selection criteria

From 15 to 20 adult patients receiving home-based palliative care will be recruited in collaboration with a hospital-affiliated palliative care team.

Inclusion criteria:

- Terminal illness with an estimated life expectancy of ≤6 months.
- Currently receiving home-based palliative care.
- Capacity to provide informed consent.
- All the participants in the interview will be asked for their written consent to be interviewed.

Exclusion criteria:

- The study will not include minors or people who are unable to give their consent to be interviewed.

- Significant cognitive impairment precluding informed consent.
- Inaccessible or technically unsuitable home environment for radar deployment.

Regarding the inclusion criteria, the 6-month prognosis cutoff makes sense both clinically and based on research. It's the standard tool used to decide who qualifies for hospice and palliative care in many countries in Europe and in the U.S. and Canada. It's widely accepted and practical to use in studies like this one. Tools like the Palliative Performance Scale (PPS) have been shown to predict survival pretty well within this timeframe. In Bischoff's study, PPS scores, especially those under 50%, are good indicators of whether someone is likely to die within 30 or 90 days. By focusing on patients with an expected survival of 6 months or less, the study stays within a timeframe where it's possible to test whether the RF sensing technology can help predict short-term outcomes.

2.3. Methodology

This is a mixed-methods, prospective observational feasibility study that places emphasis on clinical utility and ethical acceptability in evaluating RF-based sensing technology for use in home-based palliative care.

Clinically, the study will investigate whether RF-based sensing can reliably and objectively measure ambulation and physical activity, thereby supporting more accurate Palliative Performance Scale (PPS) scoring and enhancing short-term survival predictions. This technology enables localisation and people counting; monitoring body movements, postures and activities; and 2D and 3D imaging of the indoor environment. Also, the technology is capable of gesture recognition at varying angles, speeds and distances, regardless of the darkness or haziness of the environment.

We will implement a prototype system comprising RF-sensing devices, a cloud service collecting, processing and analysing the data, as well as two interaction interfaces for patients and caregivers. We plan to use the IWR1443 radars. We will operate the devices at a large distance from the subjects (in the order of 2-5 meters).

Equally, the study is designed to investigate the ethical dimensions of deploying such technology at the end of life. It will explore how patients and caregivers perceive and experience the presence of RF sensing in their personal living spaces, and whether it aligns with core values such as autonomy, privacy, dignity, and trust.

Specifically, the study seeks to answer:

1. How do patients and family caregivers experience the technology about their sense of personal space and agency?
2. How can this technology be ethically designed and implemented to respect patient autonomy while providing meaningful benefits?

Both clinical and ethical data will be collected and analysed in parallel to integrate the findings to inform a set of ethically grounded design recommendations for the future use of non-contact sensing in palliative and home care. This dual focus ensures that the evaluation of technological feasibility is inseparable from the lived experiences, values, and vulnerabilities of the individuals it is meant to support.

Each participant will be monitored over a 2-week period using the IWR1443 RF radar installed in their primary living space (2 to 5 meter range). The radar will passively collect data on:

- ambulation frequency and duration.
- body position transitions (standing, sitting, lying).

- general activity rhythms and movement density.

The method that will be used for the interviews is the phenomenological interview. This type of interview technique does not involve any physical or medical intervention. The way it will be used in this project is not therapeutic, but only to gather information about people's personal experiences of their privacy and autonomy given their medical conditions, as well as their experiences of interference of technology in health care. The interviews will be recorded and transcribed with the permission of the interviewees, and no parts of them will be published in any form without the explicit consent of the person who is interviewed. The interviews will be anonymised.

2.3.1. Data collection

Collected data will be anonymised, encrypted, and analysed via AI-based pattern recognition systems designed for privacy-respecting, non-contact sensing. Data is recorded for the participants (RF-fluctuation, CSI and I/Q data, hologram data structures). This might raise privacy issues. We address these by anonymising all data and by separating personal, identifiable information from the actual recorded data (storage on physically distinct hard disks). Only that data will be recorded and stored which is absolutely necessary. Signed informed consent forms will, short of the signature, contain no information that might be used to associate them with the corresponding data recorded during the case study. All participants will be informed of this procedure in advance and will have the possibility to withdraw at any point from the case study if they do not agree to these terms. In this case, the corresponding signed informed consent forms will be destroyed.

In this regard, we follow the General Data Protection Regulation (GDPR) EU 2016/679 of the European Parliament and of the Council of 27 April 2016, which became enforceable from 25 May 2018. This regulation is relevant to the protection of natural persons with regard to the processing of personal data and the free movement of such data, and repealing Directive 95/46/EC. It also addresses the export of personal data outside the European Union and the European Economic Area (Official Journal L 119/1).

2.3.2. Participant's consent

Informed consent is addressed by designing the study accordingly. We take a responsible approach that complies with European (and national) legislation and fundamental ethical principles such as those reflected in the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its supplementary protocols. Respect for people and human dignity, fair distribution of research benefits, as well as protection of the values, rights and interests of the research participants are ensured. No psychological, social, legal, economic or environmental harm is expected.

All members of the household where the technology will be tested will be provided with an information sheet about the technology's functioning. The degree of precision offered by RF-sensing allows us to isolate the patient's movements and only monitor them and collect their data.

Participants will have the right to withdraw from the research at any given point by informing their palliative care physician, Dr Adam Houska, part of the research team. Participants will not need to justify their withdrawal and the collection and monitoring will stop immediately after they have uttered their desire to withdraw.

2.3.3. Data storage and security

All patients' data gathered through RF-sensing monitoring radars will be stored in Aalto University server (https://version.aalto.fi/), as established in the HOLDEN project's Data Management plan (D9.3, section 2.6 "Data Security"). The data collected during the patients' interviews after the testing process, both audio files and transcriptions/translations, will be stored at the Institute of Philosophy's (Czech Academy of Science) intranet.

The interviews' transcriptions/translations were analysed with Atlas.ti software. As stated in their website Atlas.ti "processes personal data on behalf and on instruction of the Client within the meaning of Article 4 No. 8 and Article 28 of Regulation (EU) 2016/679 – General Data Protection Regulation (GDPR)"[1]. The interviews were translated from Czech directly from the audio recording; no specific software was used for transcription purposes.

Part of the dataset obtained through RF-sensing radars, specifically anonymised point cloud data that does not contain personally identifiable information, will be retained and potentially shared. The process of anonymisation includes the separation of all personal, identifiable information from the actual recorded data. This dataset could be of high value for methodological research, as it would allow other researchers to develop and benchmark new algorithms, such as people tracking, identification, heart rate, and respiration monitoring. This would be a continuation of the current project, aiming to improve underlying methods and ultimately contribute to more advanced patient care systems.

The data collected during the interviews will be similarly deanonymized, and their analysis will be used exclusively for the purposes of the project and related publications. The audio recordings, together with the transcription/translations of the interviews, will be destroyed within a year of the project's completion.

[1] https://atlasti.com/legal/dpa?_gl=1*hzjbmq*_up*MQ..*_ga*MTc2MTIwOTcwMC4xNzc1ODI3NDQw*_ga_K459D5HY8F*czE3NzU4Mjc0MzkkbzEkZzAkdDE3NzU4Mjc0MzkkajYwJGwwJGgxMDM1MTkyNzM

3. Conclusion

In this report, we have provided an ethical evaluation of the RF-sensing technology that is being developed by HOLDEN for palliative care in home situations prior to the actual testing period. This evaluation includes an identification of the different steps to be taken to be able to carry out both a successful and ethical testing period of the technology in the Czech Republic. Our ethical evaluation also includes an outline of variable values and risks of the use of RF-sensing technology in the context of palliative care. Furthermore, we have researched and summarised the benefits of RF-sensing technology in its potential use for palliative care. These benefits include ethical, but also practical and medical advantages, such as the potential to improve patient autonomy and physical and mental health. Further medical considerations include a potential improvement of PPS-scoring, which is crucial for palliative care, while using RF-sensing technology. The report also includes an outline of the planned study itself, explaining its aims, the patient selection criteria and the methodology that we will use. Overall, we can conclude that there is a real autonomy risk in the usage of RF sensing technology in palliative care, which we have outlined to mitigate as much as possible. At the same time, the potential medical and ethical benefits of the use of RF-sensing in palliative care also contribute to an improvement of patient autonomy and improvement of patients' physical and mental health.

Appendix A. Participant forms

A.1. Participant information sheet

Name of the project: HOLDEN-CARE: Ethical design of holography with dense wireless networks for palliative care.

Dear Sir/Madam,

We would like to ask for your help with a research study being conducted at your hospital. The aim of our project is to develop technologies sensitive to patients' needs in a way that fosters their autonomy and improves the treatment and care they receive at home.

Specifically, we are interested in understanding how to design the technology in an ethically acceptable way, in which it also benefits patients, so that it can be used in health care. This will allow us to anticipate interventions such as medications, exercise routines, or changes in patterns and habits. It will further allow us to identify changes in daily routine or habit, which may be early indicators for changes in the medical condition of the patient.

At the beginning of the study, we will implement a prototype system comprising RF-sensing devices, a cloud service collecting, processing and analysing the data, as well as two interaction interfaces for patients and caregivers. The testing period will have a duration of 12-14 days, where a device size of a Wi-Fi router will be installed in your house by a technician. This device can monitor body movements, postures and activities. Moreover, the technology will be able to recognise your movement even when the lights are off.

Your participation in this research is entirely voluntary. It involves being monitored by the technology and then interviewed about your own experience while living with it. This way, we will be able to assess whether the use of these sensing technologies is adequate for healthcare purposes.

The data we collect from you will be treated as confidential and will only be accessible to the project's research team. All information you provide will be handled confidentially and under Act No. 101/2000 Coll., on the Protection of Personal Data, as amended. At any point during the study, you have the right to inquire about the data you have provided. Due to data anonymization, it will be possible to remove your data from the research set no later than 14 days after its collection. All collected data will be anonymized, and each participant will be assigned a code under which their data will be processed. The data will be used solely for analyses and resulting publications.

If you would like more detailed information about the study, please contact MUDr Adam Houska at adam.houska@fnkv.cz.

The study has been approved by the Ethics Committee of the University Hospital Královské Vinohrady.

The project is supported by the European Union under the scheme HORIZON-WIDERA HOP-ON, Grant agreement no. 101217325.

A.2. Participant consent form

Name, position and contact address of researcher: Dr Geoffrey Dierckxsens, Head of the Interdisciplinary Research Lab for Bioethics: dierckxsens@flu.cas.cz

Participant's name:

Declaration:

I, the undersigned, have been informed about the research project 'HOLDEN-CARE: Ethical design of holography with dense wireless networks for palliative care'.

I have understood the information provided. All my questions and comments have been answered to my satisfaction. I am aware that participation in the research project is completely voluntary.

Based on the provided information and after careful consideration, I agree to participate in the research and to the anonymous use of the resulting data for analysis and publication. I acknowledge that the information I provide will be handled in accordance with the Act on the Protection of Personal Data (Act No. 101/2000 Coll., as amended).

I have received a personal copy of the Information for Participants in a Research Project and the Informed Consent to Participate in a Research Project.

Place and Date: .....

Name and Surname of Participant: .....

Participant's Signature: .....

Name and Signature of Researcher: .....

Appendix B. Palliative Performance Scale

%	Ambulation	Activity Level & Evidence of Disease	Self-care	Intake	Level of Consciousness
100	Full	Normal *No disease*	Full	Normal	Full
90	Full	Normal *Some disease*	Full	Normal	Full
80	Full	Normal with effort *Some disease*	Full	Normal or reduced	Full
70	Reduced	Can't do normal job or work *Some disease*	Full	As above	Full
60	Reduced	Can't do hobbies or housework *Significant disease*	Occasional assistance needed	As above	Full or confusion
50	Mainly sit/lie	Can't do any work *Extensive disease*	Considerable assistance needed	As above	Full or confusion
40	Mainly in bed	As above	Mainly assistance	As above	Full or drowsy or confusion
30	Bed bound	As above	Total Care	Reduced	As above
20	Bed bound	As above	As above	Minimal	As above
10	Bed bound	As above	As above	Mouth care only	Drowsy or Coma
0	Death				

Source: https://handbook.bcehs.ca/clinical-resources/clinical-scores/palliative-performance-scale-pps/

Appendix C. Hospital Ethics Approval

ETICKÁ KOMISE PRO MULTICENTRICKÁ KLINICKÁ HODNOCENÍ
FAKULTNÍ NEMOCNICE KRÁLOVSKÉ VINOHRADY, ČESKÁ REPUBLIKA
Ethics Committee for Multi-Centric Clinical TrialsThe University Hospital Kralovske Vinohrady, Czech Republic
Šrobárova 50, 100 34 Praha 10 ☎ +420 296 472 272 eticka.komise@fnkv.cz

STANOVISKO ETICKÉ KOMISE K AKADEMICKÉ STUDII
Opinion of the Ethics Committee on the Academic Study

Číslo jednací/*Reference Number*:	**EK-VP/45/00/2025**
Identifikační číslo KH/*EudraCT Number*:	**N/A**
Zadavatel/*Sponsor:*	**Filosofický ústav Akademie věd ČR,** Jilská 361/1, 110 00 Praha 1
Žadatel/*Applicant:*	**Fakultní nemocnice Královské Vinohrady,** Šrobárova 1150/50, 100 34 Praha 10 MUDr. Adam Houska, Ph.D., adam.houska@fnkv.cz

Název /*Full Title:*

HOLDEN care: využití RF monitorování v paliativní péči /
HOLDEN care: use of RF monitoring in palliative care

Datum doručení žádosti/*Date of Submission of the Application Form:* 01.07.2025
Datum jednání EK/*Date of Ethics Committee´s Session:* **06.08.2025 /** 13:00 h

Vyjádření EK/ *Ethics Committe´s Opinion*:
EK vydává / *EC issues*
☒ **Souhlasné stanovisko / *Favourable Opinion*** ☐ Nesouhlasné stanovisko/*Unfavourable Opinion*

Zdůvodnění stanoviska EK / *Reasons for EC opinion:* Etická komise vydává souhlasné stanovisko na základě hlasování nadpoloviční většinou. / *The Ethics Committee issues a favourable opinion on the basis of an absolute majority of votes.*

Úhrada nákladů spojených s posouzením žádosti a vydáním stanoviska /*Reimbursement of Costs related to Assessment and Issue of the EC Opinion:* ☐ Ano/*Yes* ☒ Ne, zdůvodnění/ *No, reasons*: akademická studie / *Academic study*

Upozornění EK FNKV:
Hlavní zkoušející ve FNKV je povinen informovat Etickou komisi FNKV o zahájení, průběhu a ukončení projektu. Hlavnímu zkoušejícímu je stanovena povinnost předkládat Etické komisi FNKV jednou ročně zprávu o průběhu akademické studie a po ukončení akademické studie pak závěrečnou zprávu.

V případě, že z akademické studie vzejde publikace je hlavní zkoušející povinen publikaci dedikovat FNKV.

Místo klinického hodnocení/*Clinical Trial site:*

Místo hodnocení/Jméno zkoušejícího / *Trial Site/Name of Investigator*	Místní EK / *Local EC*	Adresa místní EK / *Address*
Fakultní nemocnice Královské Vinohrady **Interní klinika** Šrobárova 1150/50, 100 34 Praha 10 Hlavní zkoušející: **MUDr. Adam Houska, Ph.D.**	☒	Etická komise FN Královské Vinohrady Šrobárova 1150/50, 100 34 Praha 10 e-mail: eticka.komise@fnkv.cz tel.: +420 296 472 272

Seznam hodnocených dokumentů / *List of all submitted documents:*

Název dokumentu, verze, datum *Document title, version, date*	Schváleno *Approved*		Vzato na vědomí *Taken into account*	
	Ano/Yes	Ne/No	Ano/Yes	Ne/No
Protokol – Holden Care_žádost_etická komise_verze 1.1_08.08.2025_AH /verze 1.1/08AUG2025	☒	☐	☐	☐
Návod k použití – user guide/verze C/MAY2020	☐	☐	☒	☐
Informovaný souhlas – HOLDEN Care_Informace pro pečující_verze 1.1_08.08.2025_AH /verze 1.1/08AUG2025	☒	☐	☐	☐
Informovaný souhlas – HOLDEN Care_Informovaný souhlas pro pečující_verze 1.1_08.08.2025_AH/verze 1.1/08AUG2025	☒	☐	☐	☐
Informovaný souhlas – HOLDEN Care_Informace pro účastníky výzkumného projektu_verze 1.1_08.08.2025_AH/verze 1.1/08AUG2025	☒	☐	☐	☐
Informovaný souhlas – HOLDEN Care_Informovaný souhlas účastníka výzkumného projektu_verze 1.1_08.08.2025_AH/verze 1.1/08AUG2025	☒	☐	☐	☐
GDPR souhlas – Holden Care_GDPR souhlas_verze 1.1_08.08.2025/verze 1.1/08AUG2025	☒	☐	☐	☐
Životopis zkoušejícího – AcademicCV – JLGQ/verze NA/datum NA	☒	☐	☐	☐
Životopis zkoušejícího – Adam Houska CV angl 3_2025/verze NA/datum NA	☒	☐	☐	☐
Životopis zkoušejícího – CV. Atefeh Bagherianziarat/verze NA/datum NA	☒	☐	☐	☐
Životopis zkoušejícího – CV_Barbora Steinlauf_FNKV/verze NA/datum NA	☒	☐	☐	☐
Životopis zkoušejícího – Dierckxsens.Curriculum Vitae.2025/verze NA/datum NA	☒	☐	☐	☐
Souhlas přednosty – HOLDEN care_souhlas přednosty/verze NA/24JUN2025	☒	☐	☐	☐
Prohlášení o shodě – EU Declaration of Conformity/verze NA/20AUG2018	☐	☐	☒	☐

Seznam členů etické komise/ *List of the Ethics Committee Members:*

Jméno a příjmení *First name and surname*	Muž/ Žena *Male/ Female*	Odbornost *Specialism*	Zaměstnanec zřizovatele EK* Ano *Yes*	Ne *No*	Funkce v EK *Role in EC*	Přítomen *Attendance* Ano *Yes*	Ne *No*	Hlasoval *Voted* Ano *Yes*	Ne *No*
MUDr. Martin Herold	M	kardiolog / *cardiologist*	☒	☐	předseda / *chairman*	☒	☐	☒	☐
MUDr. Milan Brychta	M	onkolog / *oncologist*	☒	☐	člen / *member*	☒	☐	☒	☐
JUDr. Milada Děupinková	F	právnička/ *lawyer*	☐	☒	člen / *member*	☒	☐	☒	☐
Mgr. Milada Rohlenová	F	tajemnice / *secretary*	☒	☐	člen / *member*	☒	☐	☒	☐
Mgr. Lucie Růžičková	F	tajemnice / *secretary*	☒	☐	člen / *member*	☒	☐	☒	☐
MUDr. Eva Krpenská	M	chirurg / *surgeon*	☒	☐	člen / *member*	☒	☐	☒	☐
PharmDr. Kryštof Dobečka	M	lékárník / *pharmacist*	☒	☐	člen / *member*	☒	☐	☒	☐
MUDr. Nikola Mejzlíková	F	internistka / *internist*	☒	☐	člen / *member*	☒	☐	☒	☐
Luboš Olejár	M	zástupce pacientů / *representative of patients*	☐	☒	člen / *member*	☒	☐	☒	☐
prof. MUDr. Jan Pachl, CSc.	M	anesteziolog / *anaesthetist*	☒	☐	člen / *member*	☐	☒	☐	☒
MUDr. Jaroslav Pažout	M	anesteziolog / *anaesthetist*	☒	☐	člen / *member*	☒	☐	☒	☐
Mgr. Libuše Pešlová	F	zástupce pacientů - zdravotní sestra / representative of patients - nurse	☐	☒	člen / *member*	☒	☐	☒	☐
Mgr. Lenka Turková	F	zdravotní sestra / *nurse*	☒	☐	člen / *member*	☒	☐	☒	☐

(pozn: *Zaměstnanec zřizovatele EK/ *Employee of EC appointing authority)*

Etická komise prohlašuje, že byla ustavena a pracuje podle jednacího řádu v souladu se správnou klinickou praxí (GCP) a platnými právními předpisy/*The Ethics Committee hereby declares that it was established and operates in accordance with its Rules of Procedure in compliance with Good Clinical Practice and valid legal regulations:*

☒Ano/*Yes* ☐Ne/*No*

MUDr. Martin Herold

Digitálně podepsal MUDr. Martin Herold
Datum: 2025.08.21 07:28:47 +02'00'

06.08.2025
Datum
Date

MUDr. Martin Herold
předseda EK FNKV
Chairman of EC FNKV

Podpis předsedy / místopředsedy EK
Signature of Chairman / Vice-chairman of EC FNKV

Appendix D. Institute of Philosophy ethics approval

Filosofický ústav AV ČR, v.v.i, Jilská 1, Praha 1, 110 00
Etická komise, předsedkyně: doc. PhDr. Lucie Storchová, PhD., DSc.
eticka_komise@flu.cas.cz

Stanovisko Etické komise Filosofického ústavu AVČR, v.v.i./ Statement of the Ethics Committee of the Institute of Philosophy, CAS

Číslo jednací/ Reference No.: FLU/SKR/0210/2025

Název výzkumného projektu včetně čísla/ The name of the project including its number: HOLDEN: Ethical Design of Holography with Dense wireless Networks; 101099491, HORIZON-EIC-2022-PATHFINDEROPEN-01

Řešitel/Researcher: Geoffrey Dierckxsens, Ph.D.

Datum jednání Etické komise/ The date of the meeting of the Ethics Committee: 10. 10. 2025

Vyjádření Etické komise/ Statement of the Ethics Committee:

Etická komise vydala na základě předložených materiálů souhlasné stanovisko k designu výzkumu koordinovaného Geoffreym Dierckxsensem, pracovníkem Filosofického ústavu AVČR, v.v.i.

Based on the submitted materials, the Ethics Committee issued a favourable opinion on the research design coordinated by Geoffrey Dierckxsens, researcher at the Institute of Philosophy of the CAS.

Příloha Stanoviska: Výpis ze Zápisu zasedání Etické komise vztahující se k projednávanému bodu č. 1

Annex to the Statement: Extract from the minutes of the meeting of the Ethics Committee relating to item No. 1

Praha 20. října 2025/ Prague, 20 October 2025

doc. PhDr. Lucie Storchová, PhD., DSc.
(Předsedkyně Etické komise/ Head of the Ethics Committee)

Filosofický ústav AV ČR, v.v.i, Jilská 1, Praha 1, 110 00
Etická komise, předsedkyně: doc. PhDr. Lucie Storchová, PhD., DSc.
eticka_komise@flu.cas.cz

PhDr. Petr Kizler, PhD. DSc.
(Ředitel FLÚ/ Head of the Institute of Philosophy)

FILOSOFICKÝ ÚSTAV AV ČR, v. v. i.
Jilská 361/1, 110 00 Praha 1
IČ 67985955, DIČ CZ67985955

Razítko FLU

Extract from the minutes

Zápis z jednání EK konaného dne 10.10.

Přítomni: Lucie Storchová, Pavlína Cermanová, Lenka Vostrá, Ondřej Lánský

Omluven: Petr Sláma

Jednání se konalo v zasedací místnosti CMS od 10:00 hodin.

Komise projednala podání J.L. Guerrera Quinones a navrhla doplňky do výzkumného protokolu: informaci o rekrutování lidských účastníků výzkumu, potenciálních rizicích projektu a jejich mitigaci, výstupech projektu a jazykovém kontextu eticky senzitivního jednání s lidskými účastníky výzkumu. Komise bude také požadovat předložení formulářů o informovaném souhlasu. Kol. Cermanová získá od Marie Kolárové draft projektu a doplňující informace o tom, jaké náležitosti má splňovat stanovisko k etickým otázkám v rámci projektu Horizon. V případě, že budou tyto podklady obsahovat výše požadované informace, vyžádá komise pouze předložení formulářů o informovaném souhlasu, předsedkyně navrhne Stanovisko EK, která následně projednáme.

Minutes of the EC Meeting Held on October 10

Present: Lucie Storchová, Pavlína Cermanová, Lenka Vostrá, Ondřej Lánský

Absent (excused): Petr Sláma

The meeting was held in the CMS conference room starting at 10:00 a.m.

The Committee discussed the submission by J.L. Guerrero Quinones and proposed additions to the research protocol: information on the recruitment of human research participants, potential project risks and their mitigation, project outcomes, and the linguistic context of ethically sensitive interactions with human

research participants. The Committee will also require the submission of informed consent forms. Dr. Cermanová will obtain a draft of the project and additional information from Marie Kolárová regarding the requirements that a statement on ethical issues within the Horizon project must meet. If these documents contain the information requested above, the committee will only request the submission of informed consent forms; the chair will draft the EC Opinion, which we will then discuss.

References

[1] Roberts, B., Robertson, M., Ojukwu, E.I. et al. Home Based Palliative Care: Known Benefits and Future Directions. Curr Geri Rep 10, 141–147 (2021). https://doi.org/10.1007/s13670-021-00372-8

[2] Eagar K, Clapham SP, Allingham SF. Palliative care is effective: but hospital symptom outcomes superior. BMJ Support Palliat Care. 2020;10(2):186–90

[3] Bischoff KE, Patel K, Boscardin WJ, O'Riordan DL, Pantilat SZ, Smith AK. Prognoses associated with Palliative Performance Scale scores in modern palliative care practice. JAMA Network Open. 2024;7(7):e2420472. https://doi.org/10.1001/jamanetworkopen.2024.20472

[4] Baba M, Maeda I, Morita T, et al. Survival prediction for advanced cancer patients in the real world: a comparison of the palliative prognostic score, delirium-palliative prognostic score, palliative prognostic index and modified PiPS predictor model. Eur J Cancer. 2015;51(12):1618–1629. https://doi.org/10.1016/j.ejca.2015.04.025

[5] Mendis R, Soo W, Zannino D, Michael N, Spruyt O. Multidisciplinary prognostication using the palliative prognostic score in an Australian cancer center. Palliat Care Res Treat. 2015;9:1–7. https://doi.org/10.4137/pcrt.s24411

[6] BC Guidelines. Palliative Performance Scale (PPS) – Appendix A. In: Palliative Care for the Patient with Incurable Cancer or Advanced Disease: Part 1 – Approach to Care. Victoria Hospice Society; 2017.

[7] Lau F, Maida V, Downing M, et al. Use of the Palliative Performance Scale (PPS) for end-of-life prognostication in a palliative medicine consultation service. J Pain Symptom Manage. 2009;37(6):965–972.

[8] Gray T, Plotke R, Heuer L, et al. Perceptions of prognosis and end-of-life care outcomes in patients with advanced lung and gastrointestinal cancer. Palliat Med. 2023;37(5):740–748. https://doi.org/10.1177/02692163231155511

[9] Adib F, Mao H, Kabelac Z, Katabi D, Miller RC. Smart homes that monitor breathing and heart rate. CHI '15: Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems. 2015:837–846. https://doi.org/10.1145/2702123.2702200

[10] Gramling R, Gajary-Coots E, Cimino J, et al. Palliative care clinician overestimation of survival in advanced cancer: disparities and association with end-of-life care. J Pain Symptom Manage. 2019;57(2):233–240. https://doi.org/10.1016/j.jpainsymman.2018.10.493

[11] Wang J, Liu Y, Chen Y, Gruteser M, Mandayam N, Trappe W. Device-free human activity recognition using millimeter wave radar. ACM SenSys. 2017. https://doi.org/10.1145/3131672.3131683

[12] Singh M, Tiwari A, Dey A, Tripathi A, Ghosh A. Privacy-aware in-home activity recognition using radar sensors for health monitoring. IEEE Internet Things J. 2023;10(12):10496–10508. https://doi.org/10.1109/JIOT.2022.3213032