

Research project to enhance palliative care in communities:
**Prehospital Use of Point-of-Care Ultrasound in Palliative Care -
study rationale and design**

Ivana Krajnc¹, Vesna Homar^{1,2}, Nena Golob³, Maja Ebert Moltara^{1,3}

ORCID

Ivana Krajnc: 0000-0001-6802-5552

Vesna Homar: 0000-0003-1670-6625

Nena Golob: 0000-0001-5148-4912

Maja Ebert Moltara: 0000-0002-3753-0414

Affiliations

¹Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia

²Community Health Centre Vrhnika, Vrhnika, Slovenia

³Oncology Institute of Ljubljana, Ljubljana, Slovenia

Corresponding author

Vesna Homar

Corresponding author e-mail and telephone number

vesna.homar@zd-vrhnika.si, +38641369765

Keywords

point-of-care systems; ultrasonography; palliative care; home care services; bedside; mobile palliative teams

Conflict of interest

The authors declare no competing interests.

Funding statement

The authors received no funding for writing this manuscript.

Word count: 437

Abstract

Background

Palliative care aims to provide care in the environment that is most beneficial to the patient's needs. Many palliative patients wish to spend their time in their homes. However, palliative care in the prehospital setting (for example, home care, hospices, nursing homes) has several diagnostic and procedural limitations. Some of these shortcomings can be overcome by point-of-care ultrasonography (POCUS, also bedside ultrasonography).

POCUS is a noninvasive technology that enables several diagnostic and procedural interventions to be performed bedside in patients' homes. As a result, patients, relatives and carers receive tailored care according to their preferences, with a lower number of avoidable hospitalisations and a lower overall cost of medical care.

POCUS has already entered in different areas of medicine, palliative care being one of them. While already being used in the prehospital setting, little is known about the indications for the use of POCUS, its benefits and hindrances in palliative care. Such knowledge is necessary to develop tailored educational programmes for palliative care providers.

This study aims to explore the use of POCUS for palliative care in a prehospital setting by investigating the indications for the use of POCUS, its benefits and hindrances.

Methods

We aim to perform a cross-sectional study on the use of bedside ultrasound in palliative care. Participants of the study will be physicians and other healthcare workers that are using point-of-care ultrasonography in the prehospital setting. The participants will be invited through the Slovenian Association of Palliative and Hospice Care members database and by the snowballing technique. The questionnaire will focus on indications for the use of POCUS in the prehospital setting and on the benefits and hindrances of its use.

We aim to perform the survey in two phases. In the first phase, we will conduct it on a national level as the pilot study. In the second phase, we aim to perform the same survey in an international setting.

Results

The results of this study will give an insight about the indications for the use of point-of-care ultrasonography in palliative care in the prehospital setting. Furthermore, the significant benefits and hindrances of point-of-care ultrasonography will be explored.

Conclusions

To the best of our knowledge, this is a novel study on the prehospital use of point-of-care ultrasound in palliative care. Results of the pilot study will give an insight into the prehospital use of point-of-care ultrasound in palliative care on a national level and enable us to broaden it internationally.

The results will be used for further analysis in the field of use of ultrasound in palliative care and for planning educational programmes for users of point-of-care ultrasonography in palliative care.