

## Delphi-study to formulate guidelines for medication management in the last phase of life - Round 1



Please find below possible solutions to address the (potential) problems in the management of medication in the last phase of life. For your convenience, we give a few definitions for terms that we use throughout the questionnaire.

Medication management: patient-centered care to optimize safe, effective and appropriate use of prescription and over-the-counter drugs.

Medication review: an assessment of the pharmacotherapy based on a structural and critical evaluation of the medical, pharmaceutical and clinical information.

End of life: the last 3 months of life.

Patient and/or family: indicating the family especially when the patient is not mentally competent.

Please indicate whether you agree or disagree with the following statements. We have deliberately provided dichotomous answer options. Please choose the answer options which best reflects your opinion about these statements. There are no right or wrong answers, we are interested in your opinion as an expert. Please tick the 'no answer' box only if you absolutely feel you are unable to form an opinion about a particular statement.

### General solutions

#### Awareness and organization

1. The importance of medication management in end-of-life care should be formalized in institutional policies.  agree  disagree  no answer
2. A medication review should be an integral part of the daily care for patients at the end of life.  agree  disagree  no answer
3. Palliative care specialists should be available for consultation regarding medication management for patients at the end of life.  agree  disagree  no answer
4. Health care professionals should be acquainted with the local possibilities for consultation of palliative care specialists for medication management at the end of life.  agree  disagree  no answer
5. Physicians lacking experience with medication management at the end of life should consult a palliative care specialist.  agree  disagree  no answer

## Education

6. Marking of the end of life should be part of education for health care professionals.  agree  disagree  no answer
7. Health care professionals should be trained in using tools to aid marking of the end of life.  agree  disagree  no answer
8. Education in medication management at the end of life should be organized for health care professionals.  agree  disagree  no answer
9. Physicians should be trained in pharmacokinetics at the end of life.  agree  disagree  no answer
10. Physicians should be trained in the (patho)physiological changes at the end of life.  agree  disagree  no answer
11. Health care professionals should be trained in the pharmacological treatment of symptoms at the end of life.  agree  disagree  no answer
12. Health care professionals should be trained in denominating the end of life to patients and/or their family.  agree  disagree  no answer
13. Health care professionals should be trained in communicating with patients and/or their family about decision-making on medication management at the end of life.  agree  disagree  no answer

## Research and development

14. Validity and reliability of tools to mark the end of life should be improved.  agree  disagree  no answer
15. The pharmacological treatment of symptoms at the end of life should be more evidence based.  agree  disagree  no answer
16. The effect of discontinuing medication at the end of life should be more evidence based.  agree  disagree  no answer
17. Alternative administration of drugs for patients unable to swallow at the end of life should be investigated.  agree  disagree  no answer
18. The pharmacological treatment of chronic diseases at the end of life should be more evidence based.  agree  disagree  no answer
19. In current treatment guidelines (e.g. for hypertension, heart failure, diabetes etc.) recommendations for medication management at the end of life should be incorporated.  agree  disagree  no answer
20. A list of drugs that could be tapered off or discontinued at the end of life under certain conditions should be developed (e.g. anticoagulant, antihypertensive, blood glucose lowering, antibiotic, antipsychotic, antidepressant or anticonvulsive drugs).  agree  disagree  no answer
21. A list of drugs that normally can be stopped at the end of life should be developed.  agree  disagree  no answer

**Specific solutions**

22. Available tools (e.g. the Prognosis in Palliative care Study (PiPS) predictor or the surprise question) should be used to aid marking the end of life.  agree  disagree  no answer
23. Available tools (e.g. ESAS, EORTC, symptom diary) should be used to aid symptom assessment and treatment at the end of life.  agree  disagree  no answer

**Roles**

24. Pharmacists should be actively involved in medication management decision-making at the end of life.  agree  disagree  no answer
25. Pharmacists should be informed about the clinical condition of the patient to be able to give his/her expertise in medication management at the end of life.  agree  disagree  no answer
26. Nurses should signal the end of life and discuss this with the physician.  agree  disagree  no answer
27. Physicians should discuss the end of life with the patient in a timely manner.  agree  disagree  no answer
28. Nurses should discuss the wishes, treatment goals and priorities regarding medication management at the end of life with the patient in a timely manner.  agree  disagree  no answer
29. Physicians should discuss the wishes, treatment goals and priorities regarding medication management at the end of life with the patient in a timely manner.  agree  disagree  no answer
30. Nurses should contribute to medication management at the end of life by providing information, explanation and advice to the patient and/or family.  agree  disagree  no answer
31. Nurses should contribute to medication management at the end of life by monitoring and signaling.  agree  disagree  no answer
32. In the end-of-life care plan the primary treating physician should be registered.  agree  disagree  no answer
33. The primary treating physician should formulate an end-of-life care plan with the patient and/or family.  agree  disagree  no answer
34. The primary treating physician should coordinate the medication management at the end of life.  agree  disagree  no answer
35. The primary treating physician should monitor the implementation of the end-of-life care plan.  agree  disagree  no answer
36. The general practitioner is the primary treating physician when the patient resides at home.  agree  disagree  no answer
37. The primary treating physician is responsible for recording the medication management at the end of life.  agree  disagree  no answer
38. The primary treating physician should inform the other care providers involved about the medication management at the end of life.  agree  disagree  no answer

39. The primary treating physician should ensure that the information about the medication management is passed on in case of a transfer at the end of life.  agree  disagree  no answer
40. The primary treating physician should ensure the availability of a care provider who can be reached 24/7 by the patient for medication management at the end of life.  agree  disagree  no answer
41. Other physicians should keep the primary treating physician informed in a timely manner about changes in the clinical condition or the medication of the patient.  agree  disagree  no answer

#### Decision making

42. A medication review at the end of life should take place on admission.  agree  disagree  no answer
43. A medication review at the end of life should take place weekly at the grand rounds.  agree  disagree  no answer
44. Medication management should be part of each multidisciplinary team meeting for patients at the end of life.  agree  disagree  no answer
45. Discontinuation of disease-oriented treatment at the end of life should be followed by a medication review.  agree  disagree  no answer
46. In primary care the general practitioner should review the medication at every contact with a patient at the end of life.  agree  disagree  no answer
47. The substitute of the treating physician should have access to the medication management plan at the end of life.  agree  disagree  no answer
48. A substitute of the treating physician should review the medication in accordance with the primary treating physician at every contact with a patient at the end of life.  agree  disagree  no answer

#### Communication

49. In communicating about medication management at the end of life nurses and physicians should take into account the norms and values of the patient and/or family.  agree  disagree  no answer
50. It should be discussed with the patient which role he/she would like to have in decision making regarding medication management at the end of life.  agree  disagree  no answer
51. It should be discussed with the patient and family which role the family has in decision making regarding medication management at the end of life.  agree  disagree  no answer
52. It should be discussed with the patient and/or family that the goal of medication management at the end of life is improving/maintaining the quality of life.  agree  disagree  no answer
53. The indication and (dis)advantages of the medication should be discussed with the patient and/or family at the end of life.  agree  disagree  no answer

- 54. It should be discussed with the patient and/or family how the medication can be adjusted at the end of life and what can be expected of these changes.  agree  disagree  no answer
- 55. It should be discussed with the patient and/or family how medication changes at the end of life will be monitored.  agree  disagree  no answer
- 56. Changes in the medication management plan at the end of life and the motivation should be recorded in the (electronic) medical record.  agree  disagree  no answer
- 57. Both reasons for discontinuing and continuing of medication at the end of life should be recorded.  agree  disagree  no answer
- 58. Both reasons for discontinuing and continuing of medication at the end of life should be passed on at a transfer.  agree  disagree  no answer

59. Suggestions for solutions regarding medication management at the end of life:

Awareness and organization:

---

Education:

---

Research and development:

---

Roles:

---

Decision making:

---

Communication:

---

Other:

---

**Finally some questions about yourself:**

60. What is your gender?  Male  Female
61. What is your age? \_\_\_\_\_ years
62. What is your nationality?
63. In which country do you work at the moment?
64. What is your religion?
65. What is your function? More answers are possible:
- General practitioner
  - Internal medicine-oncologist
  - Internal medicine-geriatrician
  - Internal medicine- other
  - Geriatrician
  - Cardiologist
  - Pulmonologist
  - Neurologist
  - Palliative medicine specialist
  - Pharmacologist
  - Researcher
  - Nurse (practitioner), specify speciality:
  - Other, please specify:
66. How many years do you work in this function? \_\_\_\_\_ years
67. In which setting do you work now? More answers are possible:
- University hospital
  - General Hospital
  - Hospice/palliative care facility
  - Primary care
  - Home care facility
  - Pharmacy
  - Education
  - Research
  - Other, please specify:
68. Are you involved in care for patients at the end of life?  Yes  No
69. Are you involved in decision-making regarding medication management at the end of life?  Yes  No
70. Did you receive any kind of formalised training in palliative care (degree, specialty training or accredited course)?  Yes  No