

Learning from data in nursing homes

In the Netherlands, more than a quarter of the people with dementia live in a long term care facility ([Alzheimer Nederland 2021](#)). Within these facilities a lot of data is recorded during the care process. However, these data are not yet used optimally for continuity of care, quality improvement, scientific research and policy. Within the “Learning from data” (in Dutch: Leren van Data) research line, we aim to improve this by using pseudonymized data about the daily care and treatment of clients in nursing homes from the electronic health record (EHR) “Ysis”. The EHR Ysis is used by nearly half of the Dutch nursing homes (>61K clients) and contains, for example, the medical history, the treatment policy and the use of involuntary care. The EHR also includes data about COVID-19 infections from the start of the COVID-19 pandemic which was used by our team to continuously monitor the symptoms and severity of COVID-19 during the pandemic in Dutch nursing homes.

Besides, more than 20 nursing homes which use Ysis also participate in our audit and feedback program in which they yearly register additional data about the management of (suspected) urinary tract infections and lower respiratory tract infections and about the use of psychotropic drugs. Participating nursing homes receive annual feedback based on their own performance data compared to guideline recommendations and other participating nursing homes during a group feedback session in order to learn and improve their quality of care.

Possible activities

It is possible to bring in your own research interest if this fits with the data that is available. Possible research questions can focus, for example, on reported diseases, prescribed medication, COVID-19, physician treatment orders, involuntary care and adherence to guidelines regarding antibiotic and psychotropic prescriptions and advanced care planning.

The research team

Learning from data (“Leren van Data”) is one of the four research lines of the Department of Medicine for Older People at Amsterdam UMC in The Netherlands. We are a diverse group of researchers with various backgrounds including medicine, nursing, epidemiology, and the movement and health sciences. For more information, explore our work at unoamsterdam.nl/lerenvandata. Next to our research activities, the department also provides the specialist training of Elderly Care Physicians (Specialist Ouderengeneeskunde), courses in the medical curriculum, and postgraduate education programs for healthcare professionals in long-term care.

Publications

Our team has published the following international publications about the available data:

- [Urinary Tract Infection Guideline Adherence in a Dutch Sentinel Nursing Home Surveillance Network - PubMed \(nih.gov\)](#)
- [The effect of current antithrombotic therapy on mortality in nursing home residents with COVID-19: a multicentre retrospective cohort study - PubMed \(nih.gov\)](#)
- [Risk of Death in Nursing Home Residents After COVID-19 Vaccination - PubMed \(nih.gov\)](#)
- [Dementia and Parkinson's Disease: Risk Factors for 30-Day Mortality in Nursing Home Residents with COVID-19 - PubMed \(nih.gov\)](#)
- [Clinical Suspicion of COVID-19 in Nursing Home Residents: Symptoms and Mortality Risk Factors - PubMed \(nih.gov\)](#)

Furthermore, we are working on the following manuscripts:

- Prevalence of psychotropic drug prescriptions over time in people residing at psychogeriatric wards in Dutch nursing homes
- Duration of antipsychotic and benzodiazepine use in nursing home residents: to what extent are these medications prescribed longer than guidelines recommend?



- Physician treatment orders in Dutch nursing homes
- Involuntary care in people residing at psychogeriatric wards in Dutch nursing homes
- Guideline adherence to recommendations on psychotropic drug use for challenging behavior in dementia

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