

Brief Research Report

# A survey of acute geriatric care models in Denmark

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## ABSTRACT

**INTRODUCTION.** Acute geriatric care models provide short, time-limited care for patients aged  $\geq 65$  years with acute medical illness, typically within 48 hours of presentation, in both hospital and community settings. These models have gained international interest; yet national coverage and organisation in Denmark have not been mapped. We aimed to identify all active acute geriatric care models across Denmark and to describe their core functions and the frequency with which these functions are deployed.

**METHODS.** A questionnaire from the Special Interest Group in Acute and Cross-sectoral Geriatrics (Danish Geriatrics Society), distributed in 2025, captured geography, team composition and routine assessment elements. Descriptive analyses summarised active sites and assessment components.

**RESULTS.** All hospital-based geriatric units (20/20) answered the questionnaire. Across regions, 12 of 20 hospital-based geriatric units reported having an active acute geriatric function. All care models (12/12) performed diagnostic assessment, patient-centred evaluation and treatment elements of comprehensive geriatric assessment, physical examination and laboratory testing. Other elements, such as ECG, ultrasound, frailty assessment, interdisciplinary review and community care coordination, were reported variably ( $n = 4\text{--}10/12$ ).

**CONCLUSIONS.** Acute geriatric care models are present nationwide but vary widely in visitation, team composition, assessments and follow-up. Establishing common guidelines may promote consistent and equitable care and reduce unwarranted variation in quality of care.

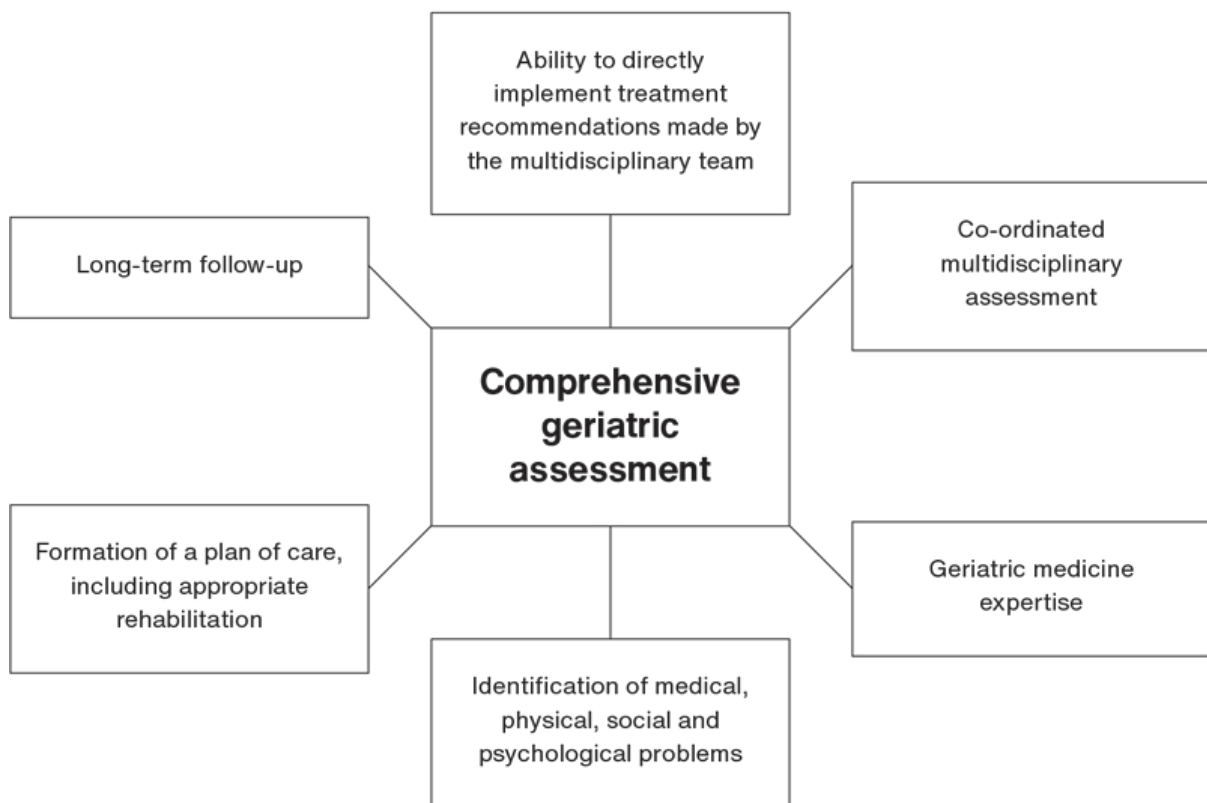
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Acute geriatric care models (AGMs) are organised care approaches for adults aged 65 years and older presenting with acute medical illness. They deliver time-limited episodes of care, typically initiated within 48 hours of presentation, in both hospital and community settings [1]. These multifaceted interventions are based on the geriatric working method and comprehensive geriatric assessment (CGA) (Figure 1), and they are associated with improved outcomes, including fewer falls and episodes of delirium, less functional decline and shorter hospital stays [2]. However, AGMs vary in routine assessment procedures and treatment approaches, resulting in substantial heterogeneity in service functions and delivery [3]. Despite Denmark's strong emphasis on

community-based care [4], the national coverage and organisation of AGMs have not been mapped systematically.

**FIGURE 1** Overview of the key domains included in a comprehensive geriatric assessment (CGA) as proposed by Ellis & Sevdalis [6]. The CGA is a multidimensional, interdisciplinary process with the following elements: 1) Co-ordinated multidisciplinary assessment (physiotherapists, occupational therapists, nurse and geriatrician), 2) Geriatric medicine expertise (a geriatrician, or a senior registrar in geriatric medicine), 3) identification of medical, physical, social and psychological problems, 4) the formation of a plan of care including appropriate rehabilitation, 5) ability to directly implement treatment recommendations made by the multidisciplinary team and 6) long-term follow up.



Thus, we aimed to map all existing AGMs delivered by hospital-based geriatric units in Denmark. We describe the current provision and highlight regional and organisational variation to inform service development.

## Methods

### Setting

The Danish healthcare system is a tax-funded welfare model that provides free and equal access to healthcare services for all residents, ensuring universal coverage and minimising financial barriers to care. Hospital-based treatment is organised within five regions [5]. The regions oversee hospitals, emergency departments, primary care physicians and most specialist services, whereas municipalities manage community health, social care services and rehabilitation.

Geriatric medicine in Denmark is primarily delivered in hospitals, through geriatric units embedded within

broader internal medicine departments or through larger independent geriatric departments. According to the Danish Geriatrics Society (DGS), there are 20 hospital-based geriatric units or departments nationwide (stand-alone speciality units and units integrated into general internal medicine).

## Design and data collection

A questionnaire ([supplementary material](#)) was designed at a DGS Special Interest Group (SIG) in Acute and Crosssectoral Geriatrics meeting in March 2024 and further developed by a working group within the SIG. To comprehensively map existing AGMs and their composition, AGMs were not predefined in the questionnaire. The questionnaire was distributed nationwide through the SIG (via SurveyXact), to all hospital-based geriatric units in Denmark (n = 20) in January 2025. Specifically, it was distributed to chief physicians at all geriatric departments and completed either by them or by the geriatrician in charge of the local AGM.

To achieve a 100% response rate (n = 20), all invited units/departments received up to three reminders. Following the final reminder, full participation was achieved.

The primary outcome was the number and regional distribution of sites with an active acutegeriatric care model. Secondary outcomes included the frequency of routine assessment elements of the acute and interdisciplinary geriatric functions.

Data were aggregated and analysed descriptively.

## Ethics

As no patient-level data were collected, no ethical approval was required. Trial registration was not applicable as the study design was descriptive.

*Trial registration:* not relevant.

## Results

**Table 1** presents the distribution of AGMs in Denmark across regions. **Table 2** presents a summary of the acute and interdisciplinary functions in Danish AGMs reported in the national survey.

**TABLE 1** Active acute-geriatric sites by region (summary): a list of all reported acute geriatric care models, by region and organising hospital.

| Region                     | Active sites, n/N | Organising hospitals                           |
|----------------------------|-------------------|------------------------------------------------|
| Capital Region of Denmark  | 3/3               | Amager and Hvidovre Hospital                   |
|                            |                   | Herlev and Gentofte Hospital                   |
|                            |                   | Bispebjerg and Frederiksberg Hospital          |
| Central Denmark Region     | 5/6               | Aarhus University Hospital                     |
|                            |                   | Randers Regional Hospital                      |
|                            |                   | Horsens Regional Hospital                      |
|                            |                   | Viborg Regional Hospital                       |
|                            |                   | Gødstrup Regional Hospital                     |
| Region Zealand             | 1/4               | Holbæk Hospital                                |
| North Denmark Region       | 1/2               | North Denmark Regional Hospital, Hjørring      |
| Region of Southern Denmark | 2/5               | Odense University Hospital, Svendborg Hospital |

**TABLE 2** Summary of acute and interdisciplinary geriatric functions based on national survey.

| Phase                           | Subcategory                         | Key findings                                                                                                                                |
|---------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Visitation                      | Screening                           | Large variation in screening practices                                                                                                      |
|                                 | Referral/visitation criteria        | Frailty often assessed using the Clinical Frailty Scale, used as part of triage for geriatric input                                         |
| Team composition                | Physician staffing and rotations    | Physicians often rotate between acute geriatric units and other specialties, leading to variability in continuity and expertise             |
|                                 | Interdisciplinary collaboration     | Collaboration extends beyond traditional team structures; several units emphasise coordination across professions                           |
| Assessment                      | Diagnostic and clinical assessment  | Use of tools such as comprehensive geriatric assessment, including e.g. medication review, functional level assessment, varies across units |
|                                 | Use of technology                   | Point-of-care ultrasound is used in limited capacity: 5/12                                                                                  |
|                                 | Evaluation of treatment limitations | Assessment of treatment ceilings is standard practice: 12/12                                                                                |
| Follow-up                       | Telemedicine                        | Many units offer telemedicine follow-up: 10/12                                                                                              |
|                                 | Home visits                         | Possibility of home visits after discharge: 7/12                                                                                            |
|                                 | Municipal collaboration             | Collaboration with municipal acute teams is standard                                                                                        |
| Alternatives to hospitalisation | Day hospital/hospital-at-home       | Day hospital functions present in 2/12, "home-treatment" implemented in selected units                                                      |
|                                 | Specialised home treatment          | Some units offer specialised geriatric home treatment teams                                                                                 |

All 20 units/departments answered the questionnaire. Twelve out of 20 hospitalbased sites reported an AGM. AGMs were present across all Danish regions. Five AGMs were in the Central Denmark Region, while the North Denmark Region and Region Zealand each reported 1 AGM (Table 1).

All 12 AGMs reported CGA as part of the routine assessment; 8 AGMs reported imaging (X-rays or radiologist-performed ultrasound on site, or point-of-care ultrasound) as part of routine assessment.

A total of 9 AGMs held interdisciplinary assessments (presence of two or more staff groups) with other staff members (nurses, physiotherapists and occupational therapists). A total of 10 AGMs reported frailty assessment as part of the visitation criteria for patients seen in the AGM, and all specified using the Clinical Frailty Scale as the frailty assessment tool.

Most teams comprised a physician and a nurse, and often also a physiotherapist and an occupational therapist. Some sites included additional professionals (e.g., a social worker and care staff). Staffing configurations varied (data not shown).

## Discussion

This national mapping of AGMs is the first of its kind in Denmark. Results indicate that AGM activity is present across all Danish regions. Among 20 geriatric units and departments, 12 reported an AGM associated with the hospital-based unit. In three hospitals with acute medicine, there is no affiliated geriatric service.

All AGMs offer a CGA approach to geriatric care, mostly in an interdisciplinary manner. In 9 out of 12 AGMs, interdisciplinary assessments were held with other staff members. Interdisciplinary teamwork and case conferences are often viewed as core competencies in geriatric care [6]. Thus, it could be debated whether all AGMs offer a CGA, since only 9 of 12 AGMs conduct interdisciplinary assessments and thus conduct CGA according to the standardisation proposed by Ellis et al. [6] or by the British Geriatric Society. This could be due to a lack of national standardisation of CGA in Denmark, thereby underscoring the need for a Danish national CGA guideline.

A total of 8 AGMs reported imaging as part of routine assessment. This number appears low and is likely affected by the way the question was formulated. Thus, the AGMs may have interpreted the question as focusing solely on the use of point-of-care ultrasound, and the results should be interpreted with caution. Frailty is a major focus in geriatric medicine [7], and frailty assessment is widely recognised as a defining geriatric skill [8]. It was therefore

surprising that only 10 out of 12 AGMs reported frailty assessment as part of the visitation criteria for patients referred to their AGM. This may be explained by the timing of the survey, which was conducted before the official implementation of the national DANFRAIL quality database [9]. DANFRAIL implements frailty assessment using the Danish translation and validation of the Clinical Frailty Scale [10] in acutely admitted adults aged 80 years and older.

Although AGMs varied in key assessment components - such as interdisciplinary assessments, imaging and frailty assessment strategies - all AGMs reported using CGA, physical examination and laboratory testing. This suggests substantial heterogeneity alongside a shared core set of assessment procedures.

The results presented here indicate major heterogeneity in organisation and assessment processes.

## Limitations

As no predefined definition of AGM was provided, sites may have applied different criteria when reporting the presence and organisation of AGMs. Some items, such as imaging, may have been interpreted differently across sites. Finally, the questionnaire, while developed by field experts, was not pilot-tested before distribution.

## Conclusions

AGMs are present across all Danish regions; however, service configurations vary substantially. We recommend initiating efforts to develop common national guidelines (e.g., visitation, team composition, assessments and follow-up). Standardisation of guidelines may promote consistent and equitable care, facilitate systematic evaluation of care quality and enhance comparability with international literature [1].

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**Supplementary material** [https://content.ugeskriftet.dk/sites/default/files/2026-06/a02260117\\_supplementary.pdf](https://content.ugeskriftet.dk/sites/default/files/2026-06/a02260117_supplementary.pdf)

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