The development of a European curriculum in Geriatric Emergency Medicine

Abstract

Older people represent a growing proportion of attendees in Emergency Departments across Europe. Traditionally Emergency Departments have not focused on care for older people especially those with frailty. Similarly, geriatric services have not traditionally focused upon the care of older people in Emergency Departments. This work seeks to bring together the two disciplines of Geriatric and Emergency Medicine through a defined and validated curriculum on Geriatric Emergency Medicine.

Domains and items for inclusion in the curriculum were derived through a combination of literature reviewing and a nominal group workshop. The domains and items underwent validation using a Delphi technique involving the European Societies of Geriatric and Emergency Medicine.

In the development stage, 100 individual learning outcomes were identified, reflecting 16 domains; following the stage 2 validation process, 98 items remained. All items were approved by the relevant EU societies.

In the final validation step, the curriculum was formally approved by the UEMS sections for Geriatric Medicine and Emergency Medicine (responsible for curriculae in the respective disciplines).

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Background

The Emergency Department (ED) is a common entry point into urgent care systems for older patients. Older people use emergency services at a much higher rate than would be expected for their population subgroup[1]. With a substantive shift in the demographics of the ED patient population, it is imperative for the next generation of emergency physicians and geriatricians to develop a joint level of expertise in managing the older person in the ED.

However, Emergency Department teams have not historically had specific training nor guidelines for the care of older people especially aspects relating to frailty and geriatric syndromes, for which a broader, more holistic intervention is considered to be best practice[2-5]. Hence, management of older patients with the primary problem being frailty has been regarded highly complex and time-consuming, as the ED environment has been organised according to single organ assessments and management.

Similarly, geriatric medicine has not traditionally focused on older people in the emergency care context. However, the competencies associated with geriatric medicine, such as delirium identification and management, falls management etc, are as important in the acute care context as they are in the more typical geriatric ward setting.

Emergency Medicine (EM) is a medical specialty based on the knowledge and skills required for the prevention, diagnosis and management of the acute and urgent aspects of illness and injury affecting patients of all age groups with a full spectrum of undifferentiated physical and behavioural disorders ([EuSEM definition](#)). The EM specialty includes pre-hospital and emergency department settings. Time is critical because delays in urgent care correlate with adverse outcomes including mortality and morbidity. EM is one of the medical specialties where a collaborative approach improves health outcomes during the first hours following admission to hospital. Currently, only 17 of the 28 member states are recognised by UEMS as having a primary specialty of EM (5-year training program).

Geriatric Medicine (GM) is a specialty of medicine concerned with the physical, mental, functional and social conditions occurring in the acute care, chronic disease, rehabilitation, prevention, social and end of life situations in older patients. This group of patients is considered to have a high degree of frailty and active multiple pathologies, requiring a holistic approach. Diseases may present differently in old age, are often difficult to diagnose, the response to treatment is often delayed and there is frequently a need for social support. Geriatric Medicine therefore exceeds organ-orientated medicine offering additional therapy in a multidisciplinary team setting, the main aim of which is to optimise the functional status of the older person and improve the quality of life and autonomy. Geriatric Medicine is not specifically age-defined but will deal with the typical morbidity found in older patients. Most patients will be over 65 years of age but the problems best dealt with by the specialty of Geriatric Medicine become much more common in the 80+ age group. It is recognised that for historic and structural reasons the organisation of geriatric medicine may vary between European Member Countries ([UEMS definition](#)).

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Both geriatric medicine and emergency medicine have existing curriculae, aspects of which relate to the general care of older people.

Geriatric Emergency Medicine

Despite a growing awareness of the importance of geriatric competencies in Europe, there is no specific European **Geriatric Emergency Medicine (GEM)** curriculum[6]. The purpose of the GEM curriculum is to highlight the competencies that might be expected of emergency department AND geriatric services focusing on the care of predominantly frail older people in the emergency medicine setting. It is the intention that the curriculum will also be useful to all key team members, such as nurses and therapists.

In an attempt to align the two paradigms of Emergency Medicine and Geriatric Medicine, the respective European Societies (EuSEM and EUGMS) created a joint Geriatric Emergency Medicine Special Interest Group (GEMSIG) in 2013. A specific activity of this group was to create the European Taskforce on Geriatric Emergency Medicine (ETFGEM), to develop the GEM curriculum.

Funding

Funding was provided by both societies to cover travel costs and accommodation for the ETFGEM meeting.

Methods

As there is no existing European GEM curriculum, a consensus process was used to develop the curriculum. In the first instance a modified Nominal Group Technique (NGT) was used to generate domains and items based on the published literature, which were then broadened and validated using a modified Delphi process.

Review of the literature

Potentially relevant papers were identified from MEDLINE 1996+ using the following search terms: older patients OR geriatric AND emergency medicine. The search was supplemented from the grey literature, personal collections and by hand-searching the references of selected papers. Papers were selected on the basis of their relevance to developing competencies in GEM by agreement between a geriatrician and an emergency physician. A range of articles including North American initiatives to develop a GEM curriculum and recent reviews and key articles in the field were identified and used to inform the development of the domains and items[7-17]. The development focused upon the additional competencies over and above that which would be expected from training in either geriatric medicine or emergency medicine – so this was not simply a reproduction of how to practice emergency medicine in older people, but an attempt to develop higher level competencies that will add value to existing curriculae[7].

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Curriculum development – nominal group method

The membership of the joint Geriatric Emergency Medicine Special Interest Group was derived from e-mail and web invitations to members of the European societies of Emergency and Geriatric Medicine, as well as through awareness raising at respective European conferences. Volunteers to participate in the 'Taskforce' to work on the curriculum were invited from the 140 or so members of the Special Interest Group. Eleven volunteers eventually formed the Taskforce (six EUGMS, four EUSEM and one GEM nurse), and participated in a curriculum development weekend in London, United Kingdom in December 2014.

Based on the literature review findings, the panel generated a list of domains and a range of items for potential inclusion in the GEM curriculum. These were discussed openly and modified following the principle of consensus. Following the meeting the draft competencies were e-mailed to the broader Taskforce for initial validation.

Second stage curriculum validation - Delphi process

The domains and individual items were entered into a spreadsheet and sent out to the boards and Councils of both EUSEM and EUGMS. Participants were asked to respond to each of the domains and items of the pre-Delphi curriculum by stating whether they fully agreed with the learning outcome or not (two choices only). If they did not agree, they were asked to specify why not and what changes they would suggest, if any, that would make the learning outcome acceptable to them. Additionally, responders were asked to give general comments for improvement of the suggested curriculum. An important instruction posed was: *'Please take into account that the curriculum contains a list of **minimal** requirements a geriatrician/emergency physician should be able to demonstrate at the end of their specialty training in emergency medicine/geriatric medicine respectively'.*

Responses were counted, tabulated and copied in full length to the members of the Nominal Group for evaluation. Where there was any ambiguity, the individual Delphi respondent was contacted for clarification. Based on this information, the leads of the Nominal Group revised the curriculum, according to the following principles:

- requests for improving the clarity or wording were checked
- requests for adding a new aspect, or for increasing the difficulty level of an existing objective were only taken into account, if this was most likely an unintentional omission, and would most likely be accepted by all experts from all countries
- requests for deleting an aspect, or for lowering the difficulty level of an existing objective, were evaluated, and if required, personally discussed (by phone or individual email) with the panel member, with the intention of better understanding the request and finding consensus on an acceptable modification.

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- The Nominal Group leads ensured that any modification did not result in the omission of an objective that was considered relevant by the majority of the Delphi panel or the Nominal Group

Final stage validation

The final stage in the process was to formally submit the curriculum to the Union of European Medical Specialists (UEMS), which regulates European curricula. The proposed curriculum was sent to the UEMS sections on geriatric medicine and emergency medicine for final approvals.

Results

Following the literature review and initial nominal group meeting involving members of ETGEM, 96 individual learning outcomes were identified, and categorised in the following domains:

- Pre-hospital care
- Assessment
    - Triage
    - Primary clinical assessment and stabilisation of life threatening conditions
    - Secondary clinical assessment
    - Clinical assessment in older people – what's different?
- Management of older people – what's different?
    - Nonspecific presentations
    - Management of geriatric syndromes (e.g. falls, confusion, continence)
    - Pitfalls in the management of common conditions – 'atypical presentations'
    - Comprehensive Geriatric Assessment (CGA)
    - Risk benefit analysis
    - Medication: review and reconciliation
    - Pain management
    - Transitions of care and disposition
    - Principles of rehabilitation in older people
    - Ethical issues, including advance directives
    - Palliative Care

The initial curriculum items were then shared with the broader ETGEM group, leading to no items being removed, but the addition of four items and several points of clarification.

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The second stage validation in which the draft curriculum was shared with the executive and/or council members of EUSEM and EUGMS obtained responses from 14 EUGMS members and 12 EUSEM members, from 16 EU countries (EUSEM). For the 103 items, the overall agreement was 2454/2509 (98%) votes. All but seven items were accepted by 90% of raters and retained. Of the seven with less than 90% agreement, one was mainly rejected by EUSEM members ('to be aware of physiological changes that affect ventilation, including reduced compliance and vital capacity') and was removed given that EUSEM members have primary responsibility for ventilation as opposed to EUGMS members.

The second item with 81% support was 'To be able to organise support for people with dementia and their carers, including post-diagnostic support and advice, personalised services, peer support, housing support, housing-related services and telecare' but the comments indicated that this was felt to be more the role of the broader Multi-Disciplinary Team (MDT), rather than being specific to ED staff. Therefore this was modified to reflect the need '*to be aware of the need for, and be able to access*' such services, as it was felt that it was an important issue highly relevant to the care of older people in the ED.

The third item with less than 90% support was addressed similarly to the above ('Explain all newly prescribed drugs to older people and caregivers at discharge, checking that they understand how and why the drug should be taken, the possible side effects, and how and when the drug should be stopped') and was changed to '*To understand the need and be able to access support* to help explain newly prescribed drugs to older people and caregivers at discharge, checking that they understand how and why the drug should be taken, the possible side effects, and how and when the drug should be stopped'.

An item on falls ('To be able to employ a framework for assessing falls in older people') received only 88% support, but the comments (from EUSEM members) indicated that objections were more about not having to undertake a full falls assessment. The item was adjusted as follows 'to be able to use a framework for the *initial* assessment of falls in older people'.

The item of being able to define the process of CGA was supported by 85% of respondents, with EUSEM members feeling that this was not their responsibility. Given the importance of holistic assessment of frail older people, this item was modified as follows: '*To be able to describe the domains of Comprehensive Geriatric Assessment (CGA) – namely medical, psychological/cognitive, functional, social and environmental issues*'. Similarly the item on knowing how to access CGA pathways was viewed as not

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being an ED role (88% support), so was clarified as follows '*To be aware of* locally agreed pathways to access CGA both in-hospital and in the community setting'.
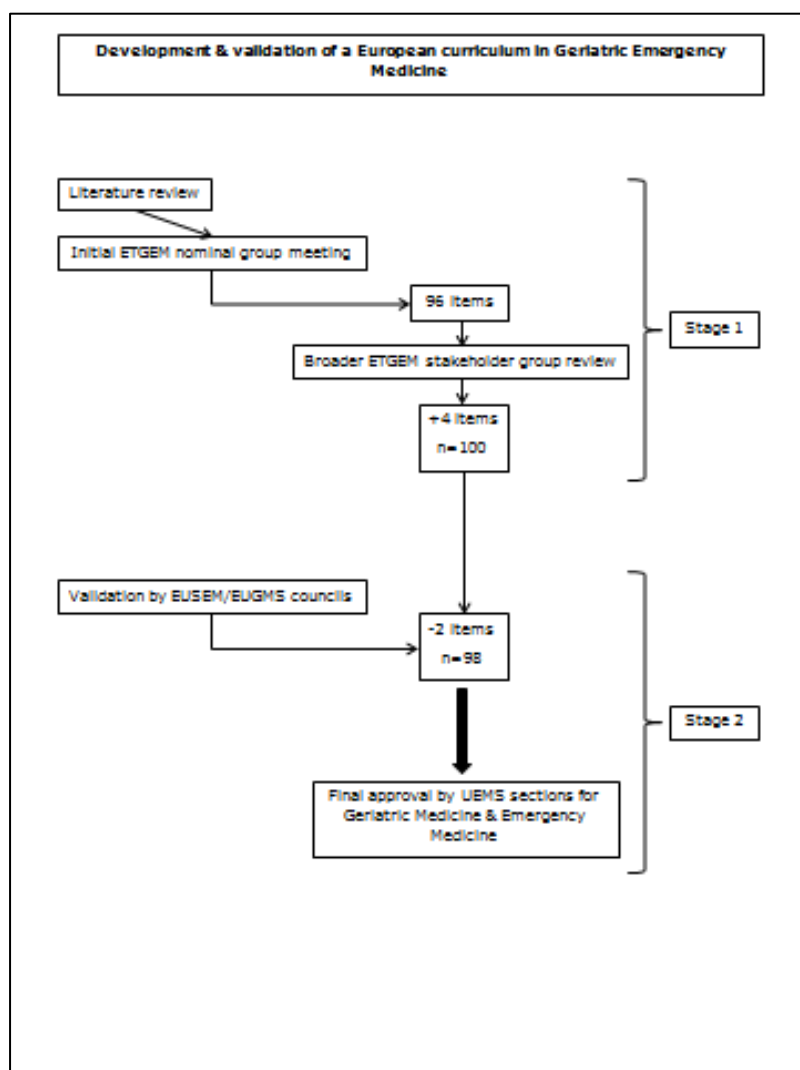
The item with the lowest rating (81%) which was questioned by both EUGMS and EUSEM members was 'To be able to describe a rehabilitation framework (e.g. International Classification of Function and Heath) that emphasises the importance of rehabilitation following an emergency care episode'). This was rejected, as the practical application of this knowledge (e.g. knowing when and how to access a rehabilitation service) was more important, and was already addressed in other parts of the curriculum.

Other comments were reviewed and incorporated – these were mainly points of clarity or commentary, leaving 98 individual learning outcomes that remained out of the 100 at the start of the second stage process (Figure 1).

In the final validation step, the curriculum was formally submitted to the UEMS sections for Geriatric Medicine and Emergency Medicine (responsible for curriculae in the respective disciplines); both sections approved the curriculum. The final approved version is shown in full in Appendix 1.

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Figure 1 Developing a European curriculum in Geriatric Emergency Medicine

Development & validation of a European curriculum in Geriatric Emergency Medicine

- Literature review
- Initial ETGEM nominal group meeting
- 96 items
- Broader ETGEM stakeholder group review
- +4 items n=100

Stage 1

- Validation by EUSEM/EUGMS councils
- -2 items n=98
- Final approval by UEMS sections for Geriatric Medicine & Emergency Medicine

Stage 2

Discussion

We describe here the development and validation of a European curriculum in Geriatric Emergency Medicine (GEM). Sixteen EU countries were actively involved in the formation and refinement of the curriculum objectives, but the UEMS councils that signed off the final competencies represent 30 EU countries and three affiliated members. The intention is that the curriculum will be disseminated and adopted by the individual national member societies of Emergency and Geriatric Medicine throughout Europe, and it would enhance the care of older people with urgent care needs throughout Europe.

The modified Delphi process did highlight some issues, most of which centered on misinterpretation of what practitioners were being asked to do, most commonly concerns that the totality of care for older people with geriatric syndromes should be undertaken in the ED; these concerns appear to have been addressed by emphasising that the intention is to assess for geriatric syndromes in the ED and be able to undertake initial,

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urgent management and then signpost patients and carers to sources of on-going support.

Strengths of this curriculum include the robust methodology and consensus building approach, which should in turn facilitate its application in practice, as it is critical to engage stakeholders early to optimise the chances of delivery[18]. A weakness is the lack of patient and public involvement in the process of curriculum development, as frailty and nonspecific presentations are associated with the inability of current clinical management systems to balance goals of care (patient outcomes) against standards of care (evidence based standards). Non-medical organisations were not fully engaged in the development process, but much of the content will be relevant to nurses, therapists and other non-medical professionals working in the ED. However, this validation process focused on medical curriculae. Future iterations of the curriculum could be improved by focusing on "what matters to the patient" rather than "what is the matter with the patient", and by engaging non-medical professionals.

Older people accessing urgent care often present non-specifically with some or all of cognitive impairment, multiple co-morbidities, polypharmacy and concomitant functional impairment. It is hoped that this curriculum will prepare clinicians for better caring for such patient in Emergency Department settings across Europe. Whilst primarily aimed at post-graduate clinicians, many aspects of the curriculum might also be incorporated into undergraduate curriculae, and should be complementary to existing pan-European curriculae through our focus on added value[19].

The remaining challenge for this initiative is to ensure that the curriculum does become embedded into practice; this will be attempted through widespread dissemination using the GEM collaboration between the EUGMS and EUSEM, by this joint publication in the 'home journals', presentations at conferences, the preparation and provision of tools to enhance learning (textbook and teaching course in development) and future evaluations of uptake. Importantly, the engagement of the UEMS in this curriculum development process should facilitate implementation. There is a parallel process underway to develop a research framework in the field of GEM in Europe.

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This curriculum is intended to outline competencies that will be relevant to the care of older people (>65 years of age) especially those with frailty, in emergency care including pre-hospital care and in emergency departments.		

Chapter	Sub-heading	Competency
Pre-hospital care		
	1	To understand the risk of under-triage in older people (i.e. vital signs may be in the normal range, but not normal for that patients - e.g. normotension in someone with systolic hypertension)
	2	To recognise the need to take a collateral history or documentation about the patients usual status and medical history
	3	To understand the importance of obtaining an accurate medication history including an assessment of compliance
	4	To recognise the importance of capturing the home environment including formal and informal caregivers as part of the pre-hospital assessment
	5	To be aware of the potential existence of resuscitation order or advance directive that may be in the person home
	6	To understand the importance of sensory impairments in older people and the need to ensure patients are conveyed with their sensory appliances
	7	To be able to recognise high risk presentation in older people which may not be identified using traditional triage scores
	8	To be aware that conventional physiological parameters may be inadequate to identify older people with severe illness
	9	To be aware that abnormal physiological parameters may be long-standing in older people
	10	Injury mechanisms cannot be used to reliably triage as older people are susceptible to significant trauma from low energy mechanisms
	11	To ensure that every patient has careful assessment, not based on age
	12	To be aware that geriatric syndromes such as falls and confusion can be associated with serious underlying problems

		and act as markers of future prognosis
Primary clinical assessment and stabilisation of life threatening conditions		
	13	To know the effects of altered anatomy on airway management (dentition, microstomia, macroglossia, cervical spondylosis and associated reduced neck extension)
	14	To be able to adjust rapid sedation medication according to age associated changes in pharmacodynamics & pharmacokinetics
	15	To recognise that shock and hypoperfusion can exist in older people despite blood pressures in the normal range
	16	To be aware of the risk of masked cerebral injury (e.g. normal Glasgow Coma Score in people with falls on anti-coagulation) related to cerebral atrophy and cognitive impairment
	17	To institute appropriate early monitoring and testing with the understanding that older people may present with muted signs and symptoms (e.g. absent pain and neurologic changes) and are at risk of occult shock.
	18	To appreciate the importance of hypothermia as a presenting feature that is associated with high morbidity and mortality
Secondary clinical assessment		
	19	To be aware of altered anatomy (e.g. arthritis), physiology, changes related to prosthetic devices (e.g. pacemakers) and the effects of medication when interpreting the secondary survey
	20	To know common patterns of injury in older people for example, ground level falls with serious sequelae
Clinical assessment in older people – what's different?		
		Communication and history taking
	21	The practitioner will be able to recognise the presence of sensory impairment (hearing, sight, speech) or cognitive impairment that impairs communication

	22	To be able to adapt communication in older people taking account of hearing/sight impairments, speech difficulties, aphasia, and cognitive disorders (e.g., using family/friend, writing, to clean and adjust a hearing aid)
	23	Document history obtained from nursing homes about the acute events necessitating ED transfer including goals of visit, medical history, medications, allergies, cognitive and functional status, advance care plan, and responsible primary care provider.
		Geriatric syndromes – 'identification of typical presentations in older people'
	24	To be aware of locally acceptable methods of identifying frail older people
	25	To be able to use a locally acceptable tool to identify older people with frailty who will need a more holistic assessment
	26	To follow locally devised pathways that lead to an enhanced multidimensional assessment in older people
	27	Generate an age-specific differential diagnosis for older patients presenting to the ED with general weakness, immobility, dizziness, falls, or altered mental status.
	28	To be aware of adverse reactions to medications, including drug–drug and drug–disease interactions, as part of the initial differential diagnosis.
	29	To understand the danger of labelling or diagnosing older people as having 'social admissions', as these patients will often have a complex interaction of comorbidities, polypharmacy and environmental factors that have precipitated their visit to the ED
	30	To be able to apply scores assessing the risk of adverse outcomes in older people attending emergency departments, including risk following discharge from the ED and risk of adverse outcomes following admission from the ED
		Effect of comorbid conditions
	31	To assess and document the presence of comorbid conditions (e.g., pressure ulcers, cognitive status, falls in the past year, ability to walk and transfer, and social support) and include them in medical decision-making and plan of care.
	32	To develop plans of care that anticipate and monitor for predictable complications in the patient's condition (e.g.,

		gastrointestinal bleed causing ischemia).
		Functional assessment
	33	To be able to undertake an assessment of Basic and Extended Activities of Daily Living and incorporate that findings into the clinical management plan
	34	To appreciate the importance of the patient's home circumstances on his or her functional ability – this can be facilitatory (e.g. established care home resident with supportive care) or may need further considerations as part of the discharge planning process (e.g. no carer but increased dependency)
		Interpreting investigations in older people
	35	To be aware of the high prevalence of asymptomatic bacteriuria and to note that asymptomatic bacteriuria is not the same as a Urinary Tract Infection, nor does it need treatment.
	36	To have an awareness of the altered laboratory findings and reference ranges that impact of data interpretation – for example, reduced renal function, age-adjusted D-Dimer and high-sensitive Troponins
	37	Incidental or long-standing abnormal findings are more common on older people and should not usually be investigated unless they are clinically relevant
		Abuse, neglect & safeguarding
	38	To recognise injury patter suggestive of abuse and/or neglect
	39	To be able to identify systems of safeguarding older people and special challenges such as medicines administration, pressure sores, falls & under-nutrition
Non-specific presentations		
	40	Generate a differential diagnosis recognising that signs and symptoms such as pain and fever may be absent or less prominent in older people with acute coronary syndrome, acute abdomen, or infectious processes.

			Trauma
		41	Injuries tend to be under-recognised and under-managed in older people, especially those with frailty or cognitive impairment, and their outcomes are worse – clinicians should demonstrate greater awareness in this population
		42	To know that older people are at increased risk from traumatic brain injury because of more friable blood vessels and medication affecting bleeding status, features of TBI may be masked in this population due to cerebral atrophy 'accommodating' intra-cranial collections
		43	To appreciate that older people are at greater risk of complication from blunt trauma, such as pneumonia following rib fracture or solid organ injury
		44	To demonstrate an understanding that low-injury trauma is the commonest cause of pelvic fractures and such injuries are associated with an increased risk of haemorrhage
		45	To appreciate that earlier recognition of trauma and appropriate assertive management increase the chances of a good recovery
		46	To demonstrate ability to recognise patterns of trauma (physical/sexual, psychological, neglect/abandonment) that are consistent with elder abuse. Manage the abused patient in accordance with the rules of the state and institution.
Management of geriatric syndromes			
			Falls balance and gait disorders
		47	To be able to use a framework for the initial assessment of falls in older people
		48	To be able to differentiate syncopal falls from non-syncopal falls, cognisant of complicating factors such as associated amnesia or cognitive impairment)
		49	To be aware of the importance of a medication review in people with falls
		50	To follow locally devised pathways that lead to an enhanced multidimensional assessment in older people with falls.

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		Cognitive and behavioural disorders
	51	Assess and document current mental status and any change from baseline with special attention to determine if delirium exists or has been superimposed on dementia.
	52	Devise a differential diagnosis for older people with new cognitive or behavioural impairment, including self-neglect; initiate a diagnostic workup and treatment.
	53	Assess and correct factors causing agitation in older people such as untreated pain, hypoxia, hypoglycaemia, use of restraints (e.g. monitor leads, blood pressure cuff, pulse oximetry, intravenous access, and urinary catheters), environmental factors (light, temperature), and disorientation
	54	To be able to differentiate delirium from dementia and to be familiar with tools for supporting this process
	55	To be able to formulate a list of differential diagnoses for delirium with special consideration of infection, polypharmacy and metabolic abnormalities such as hyponatraemia
	56	Describe a range of non-pharmacological approaches to the management of agitation in older people
	57	To be aware of the need for, and be able to access support for people with dementia and their carers, including post-diagnostic support and advice, personalised services, peer support, housing support, housing-related services and telecare
		Mood disorder – depression and anxiety
	58	To be able to routinely assess for mood disorders including depression and anxiety in older people attending ED
	59	To know referral pathways for people with mood disorder that need additional support
		Substance abuse
	60	To understand that alcohol abuse occurs in older people and alcohol intoxication can complicate the clinical presentation as well as being a risk factor for injury

		Skin care/pressure sores
	61	Appreciate that skin damage can occur within 40 minutes or quicker in older people on hard trolleys/spinal boards, with additional pre-disposing factors such as diabetes
	62	Pressure sores can be a source of occult sepsis
Pitfalls in the management of common conditions – 'atypical presentations'		
		Be aware of the potential dangers in common presentations in older people – some selected examples of how different things can be are described below:
	63	Abdominal pain – think aortic aneurysm, heart attack, constipation
	64	Diarrhoea – think mesenteric ischaemia, sepsis or constipation with overflow more than gastroenteritis
	65	Vomiting – avoid anti-dopaminergic drugs in people with Parkinson's disease
	66	Back pain – think aortic aneurysm, insufficiency fractures or cord compression
	67	Non-specific weakness may not be benign and needs careful evaluation
	68	Chest pain – likely to be cardiac even if non-cardiac sounding
Comprehensive Geriatric Assessment		
	69	To be able to describe the domains of Comprehensive Geriatric Assessment (CGA) – namely medical, psychological/cognitive, functional, social and environmental issues
	70	To be aware of locally agreed pathways to access CGA both in-hospital and in the community setting

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Risk benefit analysis			
			To be able to carefully consider the competing risks associated with standard, protocol driven treatment in older people, for example:
		71	· To be able to weigh up the risk of bleeding associated with 'triple therapy' (Aspirin, Clopidogrel and Low Molecular Weight Heparin)
		72	· To appreciate the risk of routine urinary catheters to assess fluid status, that may increase the risk of catheter associated UTI and sepsis
		73	· To appreciate that urinary catheters can cause substantial problems with detrusor instability and urinary incontinence as well as impairing dignity and increasing the risk of falls
		74	· Identify and implement measures that protect older people from developing iatrogenic complications common to the ED including invasive bladder catheterisation, spinal immobilization, and central line placement.
Medication: review and reconciliation			
		75	To be aware that medication can be a common cause of presentations e.g. bleeding with anti-coagulants, hypoglycaemia with anti-diabetic medication or toxicity associated with drugs with narrow therapeutic windows
		76	To be aware of the importance that medication reconciliation adds to the clinical assessment and management of older people
		76	Describe the changes in pharmacokinetics and pharmacodynamics seen in older people
		78	Prescribe appropriate drugs and dosages considering the current medication, acute and chronic diagnoses, functional status, and knowledge of age-related physiological changes (renal function, central nervous system sensitivity)
		79	Compliance – awareness that older people may not be taking medication as prescribed because of a range of reasons including side-effects

	80	Search for interactions and document reasons for use when prescribing drugs that present high risk either alone or in drug–drug or drug–disease interactions (e.g. benzodiazepines, digoxin, insulin, NSAIDs, opioids, and warfarin).
	81	To understand the need and be able to access support newly prescribed drugs to older people and caregivers at discharge, checking that they understand how and why the drug should be taken, the possible side effects, and how and when the drug should be stopped
Pain management		
	82	Define the effects of age, body size, organ dysfunction and concurrent illness on drug distribution and metabolism
	83	To be aware of the importance of early analgesia in preventing delirium – e.g. fascio-iliac block for hip fracture
Palliative Care		
	84	To be able to work within a multidisciplinary team incorporating patient preferences to determine when escalation of care is indicated, and when it may not be appropriate
	85	Know how to access the local pathways for hospice care and how to manage older people in hospice care while in the ED**.**
	86	Know when to institute or seek developing an end of life care plan
Ethical issues, including advance directives		
	87	To understand the local/national legal position of advance directives and Power of Attorney
	88	To be able to formulate a best interests decision in the emergency context
	89	To be able to understand ethical dilemmas around standards of care versus goals of care (for example, best practice management of an acute coronary syndrome may not be appropriate or relevant in an older person with end stage dementia who has a limited life expectancy for whom the goals of care may be comfort related)
Transitions of care and disposition		

		For every care transition (intra- or extra hospital), the practitioner will be able to formulate the following information:
	91	· Physiological parameters with the individualised clinical interpretation
	92	· Clinical narrative including communication needs and key informants
	93	· Medication and any changes
	94	· Thoughts about discharge planning and the home environment
	95	· Escalation status including advance care plans
	96	To assess and document suitability for discharge considering the ED diagnosis, including cognitive function, the ability in ambulatory patients to ambulate safely, availability of appropriate nutrition/social support, and the availability of access to appropriate follow-up therapies
	97	Discharge planning should include an assessment of whether the patient is able to give an accurate history, participate in determining the plan of care, and understand discharge instructions.
	98	Provide skilled nursing homes and primary care providers with an ED visit summary and plan of care, including follow-up when appropriate

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