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Evaluation & Management of a Critically Ill Older Patient

Description of the Activity	Surgical intensivists should be able to recognize, manage, and tailor treatment paradigms to the unique considerations of geriatric and nongeriatric critically ill patients with frailty. Surgical intensivists should account for the physiological changes of aging, frailty, contributions of comorbid conditions, polypharmacy, baseline cognitive and functional status, and advance directives in the critical care management of this patient population.
Functions	❖ Initial Care ➢ Obtain a focused and relevant patient history, including medical history, polypharmacy, history of antiplatelet and anticoagulant therapy, place of residence, baseline functional status, cognitive function, nutritional status, and the events leading to the current state of illness. ➢ Obtain collateral information from caregivers, emergency medical services, and other health care providers when patients are unable to provide the information themselves. ➢ Perform a comprehensive physical examination to identify age and frailty-related changes across multiple organ systems, alterations in thermal regulation, and manifestations of osteoporosis and sarcopenia. ➢ Obtain laboratory and imaging studies and other diagnostic tests in conjunction with patients' clinical presentation and history to formulate accurate diagnoses and treatment plans. ➢ Anticipate age-related alterations in patient physiology (decreased cardiac reserve, diminished pulmonary function, altered drug metabolism, impaired immune response) and initiate or adjust the resuscitation paradigm and treatment plan accordingly. ➢ Acknowledge the importance of early identification of a health care proxy and advance directives. ➢ Anticipate the difference in level of care required for optimal patient management. ❖ Ongoing Care ➢ Assess patients for responsiveness to their current treatment plan, and consider the need for additional resuscitative measures, procedural or operative interventions, and specialist consultation. ➢ Use clinically applicable imaging and laboratory studies to guide ongoing treatment. ➢ Demonstrate understanding of age-related alterations in pharmacokinetics and the need for dose adjustment of medications. ➢ Incorporate frailty assessment into ongoing management. ➢ Recognize the increased risk of delirium in patients, and institute evidence-based protocols for delirium prevention, diagnosis, and treatment. ➢ Determine the presence and impact of malnutrition on patients' critical illness. ➢ Appreciate the importance of patient-centered goals-of-care discussions, including escalation or de-escalation of treatment paradigms, ensuring patient/caregiver understanding of the diagnosis, prognosis, and treatment options and facilitating shared decision-making, including advance directives. ❖ Transitional Care ➢ Identify the need for physical and occupational therapy evaluations and treatments. ➢ Identify the need for speech pathology evaluation, treatment, and management of dysphagia.

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	➢ Demonstrate understanding of the increased rate and impact of critical illness myopathy in older adult and frail patients. ➢ Recognize and plan for ongoing feeding, respiratory access, and durable medical equipment when needed. ➢ Identify the need for post-ICU recovery phase services, such as long-term acute care and skilled nursing facilities. ➢ Identify patients with resolution of their critical illness and candidacy for transfer to a lower level of care. ➢ Initiate appropriate transition to hospice or comfort-focused care with consideration of patient prognosis and advance directives. ➢ Recognize the anticipated level of future dependence and care requirements in the best- and worst-case scenarios.
Scope	❖ In scope ➢ Critically ill older adults (65 years of age or older) ➢ Critically ill adults who are frail or at risk for frailty

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Level	Resuscitation	Ongoing Management	Transition of Care
1 **<u>Limited Participation</u>** Demonstrates limited critical care knowledge and skills **<u>Framework:</u>** What a learner directly out of residency should know Performs ICU procedures on straightforward patients but requires supervision/direction for more complex patients/procedures Requires continuous direct supervision by the attending for patient management	• Obtains an H&P of an older adult patient but omits some important elements unique to these patients (eg, baseline cognitive/functional status, polypharmacy, comorbidities, place of residence) • Needs prompting to seek information from collateral sources such as family members, EMS, and additional health care providers when a patient is unable to provide this information • Requires prompting to evaluate patient frailty, nutritional status, and risk of delirium • Requires prompting to recognize a patient receiving anticoagulation therapy and considerations for management (eg, type of anticoagulant, need for and management of reversal) • Initiates resuscitation without consideration of age-related physiologic changes • Requires prompting to incorporate all aspects of the health care proxy, advance directive, and code status into a goal-concordant plan of care that reflects acute illness	• Incorporates nutritional assessment with prompting and initiates workup for basic nutritional deficiencies/malnutrition but omits complex nutritional deficiencies/diagnoses • With prompting, initiates nutritional support, with preference for enteral support; recognizes the potential for aspiration and includes some measures to mitigate it (eg, HOB elevation) • Demonstrates limited knowledge of and ability to tailor the medication regimen, dosing, and potential drug interactions for an older adult patient • Resuscitates without active consideration of age-related physiologic changes; requires prompting to modify therapy in response to patient status • With active direction, resumes anticoagulant therapy in a patient previously receiving it (eg, chronic atrial fibrillation); requires prompting to recognize potential complications • Requires supervision to address the causes and symptoms of delirium and initiate management	• Requires prompting to de-escalate care and recognize readiness for liberation from the ICU • Coordinates ancillary service evaluations (eg, PT/OT/ST) with prompting • With direction, initiates patient assessment by transition of care services (eg, case management, social work) • With prompting, recognizes the need to assess a patient's long-term care needs, reflecting patient/caregiver preferences and goals of care • Exhibits limited participation in conversations with a patient/caregiver(s) regarding goal-concordant treatment; offers aggressive therapy (eg, long-term feeding access, tracheostomy) but requires prompting to consider patient prognosis, goals of care, and advance directives

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	• Requires active supervision to complete triage of an older patient to the necessary level of care • With prompting, recognizes the potential for elder abuse; requires active direction for workup and further management	• Communicates the plan of care to a patient/caregiver(s) without consideration of patient-specific factors	
2 **<u>Direct Supervision</u>** Initiates straightforward management for many critical illnesses but requires active direction for further management and complex critical illnesses **<u>Framework:</u>** Demonstrates a sufficient fund of knowledge for basic critical care and some knowledge of complex critical illness Performs ICU procedures on straightforward patients but may require supervision/direction for more complex patients/procedures	• Incorporates important elements unique to older adult patients (baseline cognitive/functional status, polypharmacy, comorbidities, place of residence) in the initial assessment of a straightforward patient, requiring ongoing guidance for a more complex patient • Seeks information from collateral sources (family members, EMS, additional health care providers) when a patient is unable to provide it but requires guidance to ensure all necessary elements are included • Performs basic nutritional and frailty assessments using standard tools; identifies risk factors for delirium • Identifies a patient receiving anticoagulation therapy but requires some direction to develop a management plan (type of anticoagulant, need for and management of reversal) • Initiates resuscitation with consideration of some but not all age-related physiologic changes	• Independently incorporates nutritional assessment and initiates workup for basic nutritional deficiencies/malnutrition but omits complex nutritional deficiencies/diagnoses • Initiates nutritional support, with preference for enteral support; recognizes the potential for aspiration and includes some measures to mitigate it (eg, HOB elevation) • Demonstrates proficiency in tailoring the medication regimen and dosing for an older adult patient; with some coaching, recognizes potential drug interactions • Resuscitates with some consideration of age-related physiologic changes but requires guidance to fully incorporate them into the treatment plan • Identifies evidence-based guidelines for resuming anticoagulant therapy in a patient previously receiving it (eg, chronic atrial fibrillation) but requires some coaching to do so	• De-escalates care and recognizes readiness for ICU liberation in a straightforward patient • Coordinates ancillary service evaluations (PT/OT/ST) independently but requires guidance to tailor timing to patient needs • Initiates patient assessment by transition of care services (eg, case management, social work) based on immediate needs, requiring guidance to anticipate long-term needs/change in status • Actively participates in conversations with a patient/caregiver(s) regarding risks, benefits, and goals of care concordance; requires ongoing direction to discuss aggressive therapies; demonstrates limited consideration of prognosis, goals of care, and advance directives

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The attending gives active help throughout to direct the clinical course.	• With some direction, incorporates health care proxy, advance directive, and code status into a goal-concordant plan of care for a straightforward patient • Completes triage of an older adult patient to the required level of care in a straightforward situation, requiring guidance in a more complex situation (considering comorbidities/functional status, institutional guidelines and resource availability) • Recognizes the potential for elder abuse and initiates assessment; requires direction to complete assessment and management	• Identifies causes and symptoms of delirium independently and initiates straightforward management; requires guidance to initiate a delirium prevention plan • Communicates the plan of care to a patient/caregiver(s) with consideration for some but not all patient-specific factors	
3 <u>Indirect Supervision</u> Manages most critical illnesses but may require guidance for more complex patients or atypical presentations <u>Framework:</u> Demonstrates a sufficient fund of knowledge for basic and most complex critical care	• Independently incorporates important elements unique to an older adult patient, including baseline cognitive/functional status, polypharmacy, comorbidities, and place of residence, in the initial assessment • Independently seeks information from collateral sources (family members, EMS, additional health care providers), requiring guidance for a complex or atypical patient • Performs a comprehensive nutritional and frailty assessment using evidence-based tools, seeking guidance for a complex or atypical patient	• Incorporates nutritional assessment independently and addresses most nutritional deficiencies, requiring guidance for complex nutritional conditions • Demonstrates competence in tailoring a medication regimen and dosing to a patient; recognizes potential for drug interactions • Resuscitates with some consideration of age-related physiologic changes and tailors the treatment plan accordingly, requiring guidance for a more complex patient	• De-escalates care and recognizes readiness for ICU liberation but requires guidance in a more complex patient • Coordinates ancillary services evaluations (eg, PT/OT/ST) independently, tailoring timing to patient needs, but requires guidance in a complex situation • Initiates transition of care services (eg, case management, social work) independently but requires guidance for complex discharge planning

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Independently performs most ICU procedures and supervises procedures on straightforward patients The learner can manage a critically ill patient in straightforward circumstances May require input to manage the most complicated ICU patients	• Identifies a patient receiving anticoagulation therapy and develops a management plan (type of anticoagulant, need for and management of reversal), requiring some guidance for a complex or atypical patient • Incorporates age-related physiologic changes into resuscitation independently, seeking guidance for a complex or atypical patient • Incorporates health care proxy, advance directives, and code status into a goal-concordant plan of care independently, seeking guidance on a more complex case (eg, no advance directive and patient lacks capacity for decision-making, disagreement between directives and family wishes, noncooperative caregiver(s), more than one surrogate or LAR) • Independently triages a geriatric and frail patient to the required level of care; seeks attending input in a resource-limited and complex or atypical situation • Recognizes the potential for elder abuse and initiates and completes assessment and management, including social services involvement	• Initiates nutritional support, with preference for enteral support; recognizes the potential for aspiration and implements evidence-based measures to mitigate it (eg, HOB elevation) • Using evidence-based guidelines, resumes anticoagulant therapy in a patient previously receiving it (eg, chronic atrial fibrillation), and monitors for complications • Addresses the causes and symptoms of delirium and initiates treatment using evidence-based protocols, requiring guidance in a more complex patient • Communicates a plan of care to a patient/caregiver(s) independently with consideration of most patient-specific factors and goal-concordance; requires guidance to refine communication in a complex or atypical situation (eg, directives and family wishes, noncooperative family, more than one surrogate or legal representative)	• Identifies a patient for whom death is imminent and initiates discussions with family/caregiver(s) about transitioning to comfort-focused care; leads (with minimal assistance) caregivers in decision-making regarding long-term ventilatory and feeding access while considering patient prognosis, goals of care, and advance directives but requires attending input for a more complex or atypical patient
4 Practice Ready	• Incorporates important elements unique to an older adult patient (baseline cognitive/functional status, polypharmacy,	• Incorporates nutritional status and complex nutritional conditions into a treatment plan	• Independently de-escalates care and recognizes readiness for ICU liberation (MK1 L4)

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Independently manages complex critical illnesses and leads a critical care team <u>Framework</u>: Demonstrates an attending-level fund of knowledge Independently performs and supervises procedures The attending is available at the request of the learner but is not routinely needed for common or complex critical illness.	comorbidities, place of residence) in the initial patient assessment independently, including in a complex/atypical case • Independently seeks collateral information from other sources (eg, family members, EMS, additional health care providers) when a patient is unable to provide this information, even in a complex situation • Anticipates and independently uses evidence-based tools to evaluate frailty and nutritional status in an older patient • Identifies a patient receiving anticoagulation therapy and independently develops a management plan (type of anticoagulant, need for and management of reversal), even for a complex or atypical patient • Independently Integrates age-related physiology in the complex resuscitation of an older adult patient • Leads the care team in involving the health care proxy and advance directives in decision-making (eg, no advance directives and patient lacks capacity for decision-making, disagreement between directives and family wishes, noncooperative family, more than one surrogate or LAR) • Independently triages an older patient to the required level of care, including in a resource-limited or atypical situation	• Demonstrates expertise in tailoring a medication regimen and dosing for a patient; proactively identifies the potential for drug interactions and adjusts therapies • Resuscitates with some consideration of age-related physiologic changes; assesses responsiveness and tailors the treatment plan accordingly • Promptly initiates nutritional support, with preference for enteral support; recognizes the potential for aspiration and proactively implements evidence-based measures to mitigate it (eg, HOB elevation) in a complex patient • Using evidence-based guidelines, coordinates with consultants and resumes anticoagulant therapy in a patient previously receiving it (eg, chronic atrial fibrillation); manages complications in a complex patient (eg, TBI, GI bleed) • Addresses the causes and symptoms of delirium and independently manages using evidence-based protocols • Communicates a plan of care to the patient/caregiver independently with consideration of most patient-specific factors and goal-concordance, including in a complex or atypical situation	• Coordinates ancillary service evaluations (eg, PT/OT/ST), addressing disparities within the plan of care • Communicates understanding of the prolonged post-ICU recovery phase and initiates transition of care services (eg, case management, social work) • Leads conversations with a patient/caregiver(s) with nuanced consideration of risks, benefits, and goal concordance of therapies in a complex situation; independently leads decision-making for long-term ventilatory and feeding access with consideration of prognosis, goals of care, and advance directives • Identifies a patient for whom death is imminent and leads the caregiver(s) in the transition to comfort-focused care

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	• Recognizes the potential for elder abuse and directs the team in initiating and completing assessment and management, including social services involvement		