

REICHMAN'S EMERGENCY MEDICINE PROCEDURES

THIRD EDITION

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Eric F. Reichman

Reichman's Emergency Medicine Procedures

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Reichman's Emergency Medicine Procedures

Third Edition

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Preface

Emergency Medicine is extremely broad and the advances have been amazing in recent years. The field covers the neonate through the geriatric, surgical and medical, and encompasses all organ systems. Emergency Medicine is rapidly evolving. Procedural skills must supplement our cognitive skills. Achieving proficiency in procedural skills is essential for the daily practice of Emergency Medicine. We have produced a clear, complete, and easy to understand textbook of Emergency Medicine procedures. This new edition addresses the diverse topic of Emergency Medicine. This text will provide medical students, residents, advanced practice practitioners, and the seasoned Emergentologist with a single procedural reference on which to base clinical practices and technical skills.

The primary purpose of this text is to provide a detailed and step-by-step approach to procedures performed in the Emergency Department. It is expressly about procedures. It is not meant to be a comprehensive reference but an easy to use and clinically useful procedure book that should be in every Emergency Department. The contents and information are complete. It is organized and written for ease of access and usability. The detail is sufficient to allow the reader to gain a thorough understanding of each procedure. When available, alternative techniques or hints are presented. Each chapter provides the reader with clear and specific guidelines for performing the procedure. Although some may use this text as a library reference, its real place is in the Emergency Department where the procedures are performed. Despite its size, I hope that this book will find its way to the bedside to be used by medical students, residents, advanced practice providers, and practicing clinicians.

This book will satisfy the needs of a variety of backgrounds and training. While this text is primarily written for Emergentologists, many other practitioners will find this a valuable reference. This book is written for those who care for people with acute illness or injury. Medical students and residents will find this an authoritative work on procedural skills. Medical students, residents, nurse practitioners, physician's assistants, and practitioners with limited experiences will find all the information in each chapter to learn the complete procedure. Family Physicians, Internists, and Pediatricians will find this text useful to review procedures infrequently performed in the clinic, office, or urgent care center. Intensivists and Surgeons involved in the care of acutely ill patients will also find this book a wonderful resource. The experienced clinician can get a quick refresher on the procedure while enhancing their knowledge and skills. Physicians actively involved in education will find this text an easy to understand and well-illustrated source of didactic material.

The book is organized into sections with each representing an organ system, an area of the body, or a surgical specialty. Each chapter, with a few exceptions, is devoted to a procedure. This should allow quick access to complete information. The chapters have a similar format to allow information to be retrieved as quickly and as efficiently as possible. There are often several acceptable methods

to perform a procedure. While alternative techniques are described in many chapters, we have not exhaustively included all alternative techniques. Key information, cautions, and important facts are highlighted throughout the text in bold type.

Each chapter, with a few exceptions, has a standard format. The relevant anatomy and pathophysiology is discussed followed by the indications and contraindications for the procedure. A list is provided of the necessary equipment. The patient preparation including consent, anesthesia, and analgesia is addressed. The procedure is then described in a step-by-step format. Cautions are placed where problems commonly occur. Alternative techniques and helpful hints for each procedure are presented. The aftercare and follow-up are discussed. Any potential complications are described including the methods to reduce and care for the complications. Finally, a summary contains a review of any critical or important information.

This book covers a wide variety of procedures that may be performed in a rural or urban Emergency Department. This includes procedures performed routinely or rarely; procedures that are often performed in the acute care, clinic, and office settings; procedures that are performed frequently in the daily practice of Emergency Medicine; and procedures that are seldom to rarely performed but critical to the practice of Emergency Medicine. Some procedures are uncommon, may not be known to the reader, and provide an opportunity to acquire new information that may be converted with proper practice and training into a useful skill. A few of the procedures are performed only by Surgeons and are included to promote understanding when the patient presents to the Emergency Department with a complication. This new edition has added chapters, algorithms, clinical pictures, cutting-edge technological advancements, radiographs, and tables based upon readers' comments, input, and suggestions.

We have drawn on a wide variety of authors. The majority of authors are residency-trained, board-certified, and practicing Emergentologists. We have the honor of having some contributors from outside the field of Emergency Medicine and who are experts in their own specialty. All authors do have biases because of differences in education, experience, and training. We have tried to base all recommendations on sound clinical and scientific data. However, we have not excluded personal experience or preferences when appropriate. In these cases, the authors also present alternative techniques.

This book has grown and changed with this third edition. I am happy and privileged to edit this third edition of the text. Continued input and suggestions from you, the reader, would be most appreciated. Let me know what additional procedures should be included or excluded in the future. Any errors, in the end, are mine. Please let me know of any mistakes or omissions, big or small, at eric.f.reichman@gmail.com.

Eric F. Reichman, PhD, MD

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Eric F. Reichman, PhD, MD

Introductory Chapters

1

Informed Consent

Eric Isaacs

This chapter is designed as a practical reference for the Emergency Physician (EP). It focuses on the unique challenges of informed consent in the Emergency Department (ED). It presents a practical guide for the informed consent process, reviews the exceptions, and offers suggestions on difficult scenarios of informed consent in the ED.

INFORMED CONSENT

The right of a patient to make decisions about their body, including the refusal of recommended procedures and treatment, is an important concept in medical practice with foundations in law and medical ethics. **Informed consent is the process of communication that demonstrates respect for a patient's right to make autonomous decisions about their health care. Informed consent is an ethical practice and a legal requirement for all procedures and treatments.**¹

UNIQUE CHALLENGES OF INFORMED CONSENT IN THE ED

Each practice environment presents its own challenges to the process of obtaining informed consent. **Physicians frequently fail to fulfill all the requirements of obtaining informed consent.**²⁻⁴ The ED presents significant challenges, which despite assumptions to the contrary, results in a greater need to spend time delivering information and engaging patients in their care decisions to the extent possible (Table 1-1). Time pressure and acuity are the most critical factors that influence the care paradigm in the ED. Care provided in the ED spans the full continuum of care as nonacute care is increasingly sought in the ED. Care in the ED addresses the full spectrum of society with patients from diverse health literacy, language origins, socioeconomic backgrounds, and recognized vulnerable populations (e.g., children, elderly, and prisoners). EPs need to be prepared to address the broad clinical needs of diverse patients under pressure without the traditional physician-patient relationship. Systemic constraints exacerbate this challenged professional context as patients have no choice in the treating physician or the treating facility. The location to transport the patient is often dictated by prehospital protocols. Tension may arise when a patient's wishes conflict with greater societal or institutional needs

TABLE 1-1 Challenges for the EP to Spend Time Engaged in Conversation with a Patient

Lack of facility choice
Little privacy
No prior relationship
Pace of care challenges lay person decisions
Public health or system-imposed constraints
Time pressure

for efficiency and protocol compliance independent of the patient's preferences and needs. Examples include a trauma activation or a public health emergency. Increasing space constraints and crowding found in most EDs create a lack of privacy that can impede the free exchange of sensitive information. Procedural interventions in the ED are often concurrently diagnostic and therapeutic, further complicating informed decisions.

The torrent of complex medical information physicians provide patients is overwhelming in the most controlled settings. It is only made worse in the high-emotion and high-stress environment of the ED. EPs often make rapid decisions with limited information. Many of our colleagues in other specialties may not share this skill. The EP's expectations of patients must be equally, if not more, tolerant. The absence of an ongoing physician-patient relationship offers no basis upon which to build trust, elicit values, and draw preference knowledge. Lack of a prior relationship tests the ability to establish an immediate rapport with patients and renders patients' ability to express their values most important.

There may not be time to ponder the intricacies of medical ethics in the ED or to satisfy all the requirements of searching for the best surrogate decision maker when there is uncertainty about a patient's preferences or a potential refusal. Many EPs will default to doing as much as possible in these difficult situations.⁵ There is often enough time to make a considered decision before acting in the most aggressive fashion. While some say that it is easier to withdraw care once the clinical picture becomes clearer, this aggressive course of action must be balanced with the knowledge that EP may be performing a painful or unwanted procedure on a patient who has previously made their wishes clear. Informed consent was often bypassed in the past under the presumption that a patient would want aggressive treatment. The scope of ED care and societal norms have shifted in recent years. **Informed consent for procedures in the ED needs to reflect the current standards of practice.**

LEGAL FOUNDATION FOR INFORMED CONSENT

Consent originates in the legal doctrine of battery (i.e., touching of the body without permission). The notion of protecting a patient from the bodily trespass of a procedural invasion was framed by Justice Cardozo in 1914: "[e]very human being of adult years and sound mind has a right to determine what shall be done with his own body; and a surgeon who performs an operation without his patient's consent commits an assault, for which he is liable in damages...."⁶ By 1957, the notion of consent shifted from mere permission to an authorization following "the full disclosure of facts necessary to an informed consent."⁷ Emerging at the same time as the bioethics movement's shift away from paternalistic medicine toward a patient's rights focus in medicine was *Cantebury v. Spence*.⁸ **This case resulted in an appeals court establishing a physician's duty to disclose the risks and benefits of a procedure and its alternatives and introduced the reasonable patient standard. The reasonable patient standard is what a reasonable patient would need to know to make an informed choice, shifting away from the professional standard, what most physicians deemed necessary.** The standard for disclosure today varies by state.⁹ As a result of the informed

consent “duty,” the legal and risk management function of informed consent (i.e., consent process that meets institutional and/or legal parameters for formal recognition, referred to as “effective consent”) overshadows the ethically driven process of informed consent (i.e., consent as a communication process that demonstrates respect for a patient’s autonomy, referred to as “autonomous authorization”). These two aspects serve distinct functions that are often conflated under “informed consent.” Both are necessary for valid informed consent and are addressed separately throughout this chapter.¹⁰

The exception presuming permission to treat in an emergency has equally deep roots. Justice Cardozo’s opinion continues, “[t]his is true except in cases of emergency where the patient is unconscious and where it is necessary to operate before consent can be obtained.”⁶ In *Canterbury v. Spence*, “the emergency exception” is included as a privilege from the duty to disclose when “the patient is unconscious or otherwise incapable of consenting, and harm from a failure to treat is imminent and outweighs any harm threatened by the proposed treatments.” It also states that a “physician should, as current law dictates, attempt to secure a relative’s consent if possible.” **In the emergency context, one may presume permission: (1) to do what is necessary when (a) there is imminent harm from nontreatment and (b) when harm from nontreatment outweighs the harm from the proposed intervention; (2) where the patient is unconscious or unable to participate in care decisions; and (3) when the patient’s preferences are not known and no surrogate is immediately available to provide authorization.**¹¹

ETHICAL FOUNDATION FOR INFORMED CONSENT

In an era of patients’ rights and shared decision-making, robust informed consent reflects a process of communication that secures that a patient “gives an informed consent to an intervention if (and perhaps only if) one is competent to act, receives a thorough disclosure, comprehends the disclosure, acts voluntarily, and consents to the intervention.”⁹

It is not uncommon to encounter the challenge of a patient refusing a recommended procedure or intervention in a health care environment where there is an expectation for more active patient participation in health care decisions. Central to a strong patient–physician relationship is the desire to promote patient well-being and simultaneously respect patient autonomy. Conflict between EPs and patients may arise when views of what is in a patient’s best interest differ between them. EPs with the greatest integrity come to work with the intention to act in the best interests of patients, and do so with a focus on the prevention and eradication of disease to preserve life and improve disability. **The patient may consent or refuse the recommendation after an EP has fully informed a capable patient about an intervention in an understandable way. An initial refusal of recommended treatment should begin a critical conversation that confirms all the elements of an informed refusal. The informed refusal process will respect patient autonomy by accepting a patient’s view of well-being and may require honoring a refusal of the recommendation.**¹²

EP’S ROLE AND GOALS IN INFORMED CONSENT

The EP’s role in the informed consent process is to provide patients the information needed to make their own decisions. Provide written sheets that cover all aspects of the procedure if available. It is important not to overwhelm a patient with too much information or complex clinical decisions. **Including patients in appropriate care decisions (e.g., the informed consent process for a procedural intervention) is an ethically important goal.**

TABLE 1-2 The Goals of EPs in the Informed Consent Process

Allow autonomous authorization (patient may consent or refuse)
Give information (more than we think we need to give)
Make information accessible
Offer guidance in weighing information
Support patients to make their own decision

EPs must pay attention to the informed consent process to accomplish the goal of respect for autonomy (Table 1-2). EPs need to provide more information to the patient than they think is needed. Research indicates that patients need more information than physicians think they need to feel “informed” in the decision-making process.¹³ The need for a procedure seems obvious to the EP, and the balance of the considerations clearly tips in the favor of “do it.” EPs must slow down to fully explain the rationale for their recommendation with patients and to offer patients information that allows their meaningful consideration of the recommendation so that they can reach their own decisions. A good guideline is to offer more time and information for procedures carrying greater risk.¹⁴ **EPs must make the effort to work against the features of the ED (Table 1-1 and presumption of consent). Allow patients capable of engaging in their care decisions to express autonomous authorization.** This is achieved by giving patients sufficient information, in an understandable way, and by honoring their decisions.

COMPONENTS OF THE INFORMED CONSENT AND INFORMED REFUSAL PROCESS

Informed consent is the communication process that demonstrates and protects a patient’s self-determination by providing a patient with decision-making capacity with sufficient, understandable information and allows the patient to make a voluntary, knowledgeable decision. There are five requirements that must be satisfied.⁹ These include the patient having decision-making capacity, the EP providing sufficient information, the patient understanding the information, the patient giving consent in a voluntary fashion without coercion, and the patient communicating their decision (Table 1-3).

DECISION-MAKING CAPACITY

The terms “competence” and “decision-making capacity” are frequently used interchangeably, but their strict meanings are different. **Competence is a legal term with broader applications related to financial matters and the determination of personal choices. Decision-making capacity is a clinical term that speaks to the specific capacity to make a clinical decision.** Many people who are legally “incompetent” retain health care decision-making capacity. **If the patient does not have decision-making capacity, informed consent cannot be obtained and it must be obtained from a surrogate decision maker, or the patient may fall into an exception from informed consent.**

TABLE 1-3 Requirements of the Informed Consent Process⁹

1. Does the patient have the decision-making capacity to make this decision?
2. Has there been disclosure of relevant procedural information (including risks/benefits for intervention, alternatives, and nonintervention)?
3. Has the information been presented in a way that is understandable to the patient?
4. Has the information been presented in a way that allows the patient to make their own decision voluntarily while still being informed of the physician’s recommendation?
5. Has the patient communicated a decision?
6. Does an exception apply?

DETERMINING DECISION-MAKING CAPACITY

The determination that a patient has decision-making capacity is at the core of informed consent. By default, EPs assume that a patient has capacity and confirm this through routine dialogue with the individual. Confirm six elements when there is a question about a patient's capacity to make an informed decision about procedures or treatment.¹⁵ The patient must be able to: understand and process the options, weigh the benefits and risks, apply a set of values and goals to the decision, arrive at a decision, communicate a choice, and demonstrate capacity to make the decision (Table 1-4).

Determination of capacity is a clinical decision based on the judgment of the EP regarding the patient's actual level of functioning and appreciation of the ramifications of the clinical situation.¹⁶ The degree of capacity needed to understand risks and benefits of suturing a finger laceration differs from a cardiac catheterization. A patient may be able to understand one choice but not another. An Alzheimer patient who is pleasant, oriented to place, and oriented to year may be unable to appreciate the consequences of a decision. This patient may have capacity for some tasks but may lack the capacity to consent for a specific procedure (e.g., lumbar puncture).

The EP needs to assess the ability for the individual to weigh the risks considering their (i.e., the patient's) own values. An example would be the ramifications of a fracture reduction on the dominant hand. A construction worker or musician may decide different than an individual whose livelihood does not depend on perfect hand function.

A recognized element of decision-making capacity is whether the patient's decision is consistent over time. This is not necessarily applicable specifically to the ED. A possible heuristic is whether the decision is consistent with the person's narrative and values as expressed consistently over time in life choices. The decision-specific nature of capacity acknowledges that the level of capacity needed depends upon the complexity of the decision, with greater capacity needed for decisions with graver consequences. **The degree of capacity needed to consent does not necessarily equal the degree of capacity needed to refuse a recommended intervention.**¹² Informed refusal will be discussed later in this chapter.

Decision-making capacity is a dynamic process and changes depending upon the patient's evolving condition and task in question. The ED patient may be able to participate to a greater or lesser extent depending on fluctuations in their condition and alterations of their sensorium from the administration of medications. Make efforts whenever possible to enhance the patient's decision-making capacity (e.g., reduce pain medication temporarily or visit patients at optimal times) to engage them to the fullest extent possible in their care.

Emancipated minor and adolescent laws vary from state to state.⁹ **Emancipated minors are legally recognized as adults and responsible for their own finances and care.** They can provide fully informed consent. Know the local laws where minors who are not emancipated may give consent for sensitive conditions or procedures (e.g., those of a reproductive nature or substance abuse).

Informed consent may not be possible with some populations (e.g., young children and elderly with dementia). It is still possible

TABLE 1-4 Elements to Determine if a Patient Has Decision-Making Capacity

1. The patient is able to understand and process the options presented.
2. The patient is able to weight the relative benefits, burdens, and risks of the options.
3. The patient is able to apply a set of values and goals to the decision.
4. The patient is able to arrive at a decision that is consistent over time.
5. The patient is able to communicate a choice.
6. The patient demonstrates capacity appropriate and sufficient to make this decision.

to inform these patients of the procedure and to engage their assent. **Unlike consent, assent is not determinative.** It does offer the possibility of the individual participating in their care.¹⁵

PATIENTS LACKING DECISION-MAKING CAPACITY

It is not possible to obtain informed consent when a patient lacks decision-making capacity. **Necessary treatment may be provided to patients who lack decision-making capacity without obtaining the patient's informed consent.** Make every effort to learn the patient's previously stated preferences for treatment (e.g., written advance directives or communication with a primary care provider). **Make efforts to obtain consent from a surrogate decision maker if prior preferences are not available.** A surrogate decision maker is a person entrusted with making health care decisions because they know the patient best and can bring the patient's values and goals into the clinical decision process. This role can be challenging for even the most capable decision makers. It is not uncommon for surrogates to have a role conflict between applying their own values and/or wishes and those of the patient.

EPs must pay attention to the language used when asking a surrogate decision maker for consent. Frame the discussion with phrases asking what the patient would want in the situation, such as "How would your father view this situation?" or "What would your father's preference be based on his values?" Avoid general phrases such as "What should we do?", "What do you want us to do?", or "What do you think he would want?" An EP can ask the surrogate "Why do you think he would choose that?" if the decision seems to stem from a role conflict. No prior conversation covers every clinical scenario perfectly, and the gravity of the decision can frequently be overwhelming for the surrogate.¹²

The choice of a surrogate decision maker may be obvious in some cases (e.g., the parent or legal guardian of a child). The choice can be more complex in other cases. Who may serve as a surrogate and their scope of authority varies by state. What if the appropriate surrogate is in question and there is no statutory guidance? A useful guide is that the surrogate's authority arises from a close relationship to the patient that affords accurate and informed communication of the patient's values. Refer challenges in resolving conflict between potential surrogates (e.g., siblings with different opinions regarding parental care) to an ethics committee or other institutional mechanisms to offer guidance unless emergent conditions make that impractical.

INFORMATION TRANSMITTAL

The EP must relate sufficient information about the procedure to the patient. This raises the questions of what information to present and how much to present. **Relevant information includes the risks and benefits of the procedure, any alternatives to the proposed course of action, and the consequences of nonaction.** The question remains how much information needs to be disclosed to patients, particularly considering the potential that legal action may be taken if an EP does not obtain informed consent properly.¹⁷

There are two standards that are commonly used, and these vary by state. The traditional "professional standard" requires the EP to provide information based on what the profession's standard of practice would deem necessary to disclose for a patient to be informed. The more common "reasonable person standard" requires the EP to include all the information that a reasonable patient would want to know to make a knowledgeable decision. Information that should be communicated includes: the patient's current medical condition and how will it progress if no treatment is given, the treatment

alternatives, the risks and benefits of each potential treatment and their probabilities, and the financial costs of each if those estimates exist. Finally, the EP should provide a personal recommendation as to the best alternative.⁹

UNDERSTANDABLE PRESENTATION OF INFORMATION

Information must be given in a way that is understandable. The patient must be able to adequately weigh the benefits, burdens, and risks of the treatment in the context of their own beliefs, goals, life, and values. The obvious differential in knowledge and understanding between patients and EPs may be exacerbated by language barriers, literacy, low educational levels, and numeracy.¹⁸ Such barriers may be overcome by speaking at a level easy for the patient to comprehend, being sensitive to patients who may be unable to read, and being sensitive of patients who may not be highly educated. Understanding is bidirectional and necessitates that the EP confirms that the patient understands what they are told.¹⁹ Communicating numbers (e.g., risk and probabilities) is the most complex task asked of the EP.²⁰ Frame numbers in multiple ways and present outcomes in positive and negative contexts to enhance informed consent.²⁰ For example, “three out of four children have no side effects, but one in four will have nightmares from this medication.”

Language barriers are frequent in the ED and pose significant concern in obtaining and documenting informed consent.²¹ Understanding languages is situational. It is imperative to know when to call an interpreter even though some EPs may have additional non-English language proficiency. Limited language skills allow the EP to extract some critical clinical information. Patients may need more information than the EP’s skills allow. **Calling an interpreter may be essential for meeting a minimum standard of care.**²²

VOLUNTARY NATURE OF THE DECISION

Forced treatment where any real choice is removed from the patient being involved in the decision-making process violates the doctrine of informed consent. Any form of coercion based on threats or intolerable consequences (e.g., the withholding of pain medication) would fall into this category. **EPs cannot manipulate patient decisions by withholding or distorting information that the EP believes may sway the patient toward a preferred course.** Persuasion is permissible. It is an obligation as trained professionals to synthesize the information and recommend a course of action. An appropriate recommendation includes laying out the risks, benefits, and reasoning behind the recommendation as well as explaining the reasoning for not selecting an alternate approach. EPs can utilize the resources of the patient’s family or significant others to provide arguments in favor of a course of treatment. The EP must be careful to avoid overwhelming the patient, as the goal should be a shared solution by consensus and not forcing the patient to surrender to the wants of others.⁹ Strategies to approach a patient’s refusal are discussed in depth later in this chapter.

EFFECTIVE INFORMED CONSENT AND REFUSAL

There is a difference between the autonomous authorization informed consent (i.e., information and dialogue) and the effective informed consent (i.e., to meet legal and institutional requirements). **Document the discussion of the benefits, burdens, risks, and alternatives addressed in the discussion with the patient for the autonomous authorization to be recognized as effective and the entire informed consent to be valid.** Reference local institutional policies to confirm an effective informed consent or refusal.¹⁰

Some hospitals have patients sign “blanket” consent forms agreeing to all emergency tests and treatments upon their registration in the ED. Such consent forms provide no information regarding specific individual procedures.²³ These forms are not acceptable because they fail to respect patient autonomy. **Blanket consent forms cannot substitute for the usual informed consent process for procedures in the ED, where a dialogue with the patient is required.**²⁴

EXCEPTIONS TO THE INFORMED CONSENT PROCESS

EMERGENCY EXEMPTION

Society’s overriding assumption is that a person would want lifesaving treatment in an emergency. Consent to treatment is generally presumed under specific emergency circumstances where intervention is necessary to save life or limb, the harm of nontreatment is greater than the harm of the intervention, a patient is unable to participate in care decisions, and patient preferences are not known with no surrogate available. **This emergency exception is not absolute.** This is particularly true when there is clear evidence that the patient’s wishes are contrary to the intervention being considered (e.g., prehospital advance directive or a wallet card stating no blood transfusions).

Some EPs believe that any patient in the ED qualifies for an emergency exception by being in the ED. This is not true. **Location by itself cannot be used to justify the emergency exception or to infer an “implied consent” for broad ED care. The emergency exception may be invoked only when the patient will be harmed by the delay necessary to obtain informed consent.**²⁵ The EP should ask themselves a few brief questions to determine if a patient meets the criteria for an emergency exception to informed consent (Table 1-5).

THERAPEUTIC PRIVILEGE

The therapeutic privilege is a disfavored concept but recognized exception. It excuses the EP from the duty to disclose in the limited circumstances where disclosure might create harm to the patient and interrupt the treatment process. This privilege is rarely invoked as it could almost negate the entire informed consent process. Therapeutic privilege may be applied when direct disclosure to a patient would create harm, generally recognized as occurring in some psychiatric conditions and for some cultural groups.⁹

WAIVER OF INFORMED CONSENT

The EP has a duty to disclose information. Patients may differ in how they approach their participation in care decisions. Some patients may prefer that another person (e.g., a close family member) receive health care information and make treatment decisions on their behalf (i.e., delegated autonomy). This may be due to personal preference or cultural variation. The delegation of the decision-making

TABLE 1-5 Questions to Justify an Emergency Exception

1. Will failure to treat quickly result in serious harm to the patient?
2. If their condition worsens, will the patient die or suffer serious harm before definitive care can be delivered?
3. Would most capable and reasonable people want treatment for this type of injury?
4. Is the patient unable to participate in care decisions?
5. Are the patient’s preferences known or knowable in a timely way from a surrogate?
6. Is there any evidence that the patient would refuse this specific treatment?
7. Would failure to treat result in greater harm than the proposed intervention?

must be confirmed with the patient and not assumed based on cultural norms. The delegation reflects a patient's right to waive informed consent. **Honor the patient's choice to delegate that right to another person as it demonstrates an autonomous choice.**¹⁵

Some patients may interrupt the informed consent process after only partial information is disclosed and elect to follow the recommendation. If the EP confirms the patient's acceptance of the consequences of consent with only partial information, the EP may accept this as consent via waiver of the informed consent process.²⁵ The EP may accept a waiver of consent if the patient has capacity, understands that they are giving up an important right, and has made the request voluntarily. The EP who is uncomfortable with this responsibility may ask the patient to designate another person to assume this role.

IMPLIED CONSENT

Implied consent is a disfavored concept. It may be considered to "apply" in the very limited circumstances when an EP is undertaking a clinical activity with a well-known risk-benefit profile.²⁶ The most favored implied consent example is when a patient extends his arm for a blood draw. The volitional act of extending the arm is deemed as implied consent to the blood draw and its risks (e.g., pain and possible bruising). The assumption of "implied consent" poses a dangerous trap for the EP. **What an EP considers routine and well-known risks may differ greatly from what the patient knows.** This is particularly true in the ED where there is little trust and no knowledge of the patient's health literacy.

Emergency Medicine research shows at least 50% of patients wanted time spent on "detailed" information, including a review of the risks of only 1% chance of occurrence. For example, lumbar punctures are clinically safe and pose little risk. The patient perceives lumbar puncture as an invasive procedure that requires more information for informed consent.¹³ **Implied consent is not sufficient when informed consent is required or possible.**¹²

UNREPRESENTED PATIENTS OR THE PATIENT ALONE

A patient who is unable to participate in care decisions and has no surrogate decision makers is known as the "unrepresented patient" or the "patient alone." These highly vulnerable patients have no social networks to assist the care team in navigating consent and care decisions.²⁷ Attention to clinical decision-making for this patient population is growing.²⁷ Statutory guidance on decision-making for this patient population varies by region. Review institutional policies to determine whether a policy exists for decision-making for the "unrepresented patient." Consultation with the ethics service is recommended in the absence of a policy, and make efforts to develop a consistent and transparent approach to care decisions for this vulnerable population.¹⁵

INFORMED REFUSAL

The EP often begins with the presumption that patients possess decision-making capacity to consent and refuse procedures. The EP may question a patient's capacity in clinical practice more readily when the patient disagrees with recommendations.

UNDERSTAND THE REASONS FOR THE REFUSAL

A refusal for a recommended intervention should be the beginning of an important conversation with the patient. A refusal of a recommendation when first proposed may seem a rebuff or potential time challenge. Approach a refusal with openness and curiosity.

Help the patient not feel cornered into following the recommendation while confirming their informed refusal. A refusal is an opportunity to learn how to practice persuasive reasoning. A patient might have misheard numbers, or the proposed procedure may resemble a prior negative experience during the barrage of information disclosure. **Take time to listen to the patient's concerns and reasons for refusal.** This can help navigate the informed refusal process.

CONFIRM THE ADEQUACY OF INFORMATION WITH AN EMPHASIS ON UNDERSTANDABILITY

Reflect the patient's refusal reasons back to the patient so that they feel they have been heard. **It is important for the EP to acknowledge the patient's perspective, even if they disagree with the reasons.** This allows the patient to engage in listening as the EP provides additional information to support the recommendation. Normalizing an "irrational concern" allows the patient to feel "okay" and still follow the recommendation. For example, "I can understand that your sister's complication from procedural sedation several years ago would give you some concerns about this recommendation. I want to reassure you that today we take these additional steps..." Tailor the revised recommendation to address the concerns of the patient and focus on making sure that the information provided is simple, direct, and understandable.

ADDRESS BARRIERS TO UNDERSTANDING

Make significant efforts to enhance the patient's ability to understand the information when a refusal occurs. A professional interpreter must be utilized to compensate for any communication barriers to the patient's understanding in an informed refusal process. Revisit all the information from the initial discussion of information that occurred with an informal interpreter (e.g., family member or health care provider). Residual misinformation can prolong a patient's refusal. Start from the beginning of the clinical communication, even if it takes more time. This can often remedy the situation. Use language or pictures tailored to a patient's lower educational or functional level when necessary.¹⁹ Address any anxiety and pain as quickly and as safely possible as they may contribute as a barrier to understanding.

CONFIRM CAPACITY TO REFUSE RECOMMENDATIONS

Is decision-making capacity a potential issue? **The EP must take steps to mitigate any factors leading to impaired decision-making so that the patient may participate in their care to the fullest extent possible.**

It was thought in the past that patients with certain diagnoses by default lacked decision-making capacity. Many clinicians now recognize that patients with severe mental illness, early dementia, and some organic brain syndromes are at risk for impaired decision-making but may possess decision-making capacity for selected procedures and treatments.¹⁵ There are certain red-flag scenarios when an EP should scrutinize a patient's decision-making capacity with greater depth (Table 1-6). **Actions or decisions with greater consequences require a more intense evaluation of the patient's capacity.** A more careful evaluation of capacity is indicated when the patient's choice seems unreasonable or if the patient is unwilling to discuss their thought process. Chronic psychiatric and neurologic conditions remain a risk for, but should not be equated with, impaired decision-making. Cultural, educational, and language barriers impact the decision-making process. High levels of anxiety (e.g., untreated pain or the inevitable stress of the ED) are known to impair decision-making.²⁸

TABLE 1-6 Red Flag Scenarios That Require Additional Assessments of the Patient’s Decision-Making Capacity

Abrupt change in mental status
Anxiety or untreated pain
Chronic psychiatric or neurologic conditions
Cultural and language barriers
Extremes of age
Limited education
Patients readily consenting to invasive or risky treatment
Refusal of recommended treatment

Many providers outside the ED setting will utilize psychiatric consultations to assist with the evaluation of a patient’s decision-making capacity. The utility of such a consultation is frequently limited by time and consultant availability. Consultations in the ED may prove useful when evaluating a thought or delusional disorder that may impede understanding.

EFFECTIVE DOCUMENTATION TO DOCUMENT THE INFORMED REFUSAL

Honoring a refusal of emergency treatment that would be beneficial or may result in decompensation or death is never easy. Use of the standard hospital “Against Medical Advice” form can create an adversarial relationship that an EP may find damaging to future patient interactions and the subsequent treatment plan. Anecdotal reports include cases where patients reconsidered their decision when presented with such a document. Document refusal of care for medicolegal protection and to confirm that clear communication with the patient had occurred.

The documented recommendations when a patient refuses treatment should include: the patient has refused the recommended procedure, test, or treatment; the patient’s reasons for the refusal; and the consequences of the refusal were explained to the patient including the alternatives, if any, being offered or performed in lieu of the recommended procedure. Include statements that show the patient understood and continued to refuse the specific procedure or treatment and has the capacity to do so. Document that the patient’s wishes are being honored against medical advice. **It would be preferable if the EP could have the patient read this documentation followed by the patient signing the medical record below this documentation in acknowledgement.**

Additional documentation is required when an EP recognizes a “red-flag” scenario for impaired decision-making (Table 1-6) or has other reasons for concern (Table 1-7). These are essential items

TABLE 1-7 Mnemonics for Documentation of Decision-Making Capacity Assessments

U and I GLAD
U—understanding of the procedure/discussion
I—impairing conditions
G—goals and values
L—logic used to decide
A—actual functioning
D—danger or risks of decision
CURVES*
C—choose or communicate (Can the patient make and communicate their choice?)
U—understand (Can the patient understand the risks, benefits, and alternatives?)
R—reason (Can the patient make a logical and rational choice?)
V—value (Is the choice consistent with patient values?)
E—emergency (Is there impending risk?)
S—surrogate (Is a surrogate available or is there any documentation guiding treatment?)

*The first four refer to the decision-making capacity. The last two refer to treatment without consent.

that must be documented in these cases. Document the patient’s medical condition and the procedure or treatment that is suggested, including the urgency and necessity. Document the patient’s current decision-making abilities with a description of the impediments to capacity and the actions taken by the EP to maximize capacity. Include the availability of family or other surrogate decision makers and any relevant discussions.

Documentation will vary by institution and local laws. Being familiar with the appropriate measures to make an informed consent or refusal is effective is a critical part of the informed consent or informed refusal process in the ED.²⁹

SHARED DECISION-MAKING

There has been much discussion about the concept of shared decision-making (SDM).³⁰⁻³⁶ The concept was brought to the fore in the Institute of Medicine (IOM) report “Crossing the Quality Chasm.”³⁰ It was in the context of improving quality and safety through patient-centered care, “care that is respectful of and responsive to individual patient preferences, needs, and values.”³⁰ The report went on to specify “that patient values guide all clinical decisions.”³⁰ There is a good deal of rhetoric surrounding patient-centered care in the literature, attempting to move clinicians away from the traditional role as the sole authoritarian and into the role of a partner in care. SDM is a way of actualizing these words, engaging patients in the essential role as a participant in their care, and breaking down communication barriers between providers and patients.

Expert consensus argues that SDM is different than informed consent.³¹ Informed consent is used when there is one distinctly superior treatment choice. The informed consent process ensures the patient understands the risks and benefits from a particular procedure and consents to the treatment freely and without persuasion. SDM is a process entered when there is more than one reasonable course of treatment indicated for a particular clinical situation, each with its own set of outcomes and potential complications. The EP and the patient exchange information involving their expertise in the process of SDM. The EP shares the potential treatment options and describes the risks and benefits of each. The patient communicates their values and preferences regarding each treatment. This is not to say that all responsibility for decisions is placed on the patient. Each person contributes to the other’s understanding of important aspects of the shared decision about how to move forward with treatment. **“SDM is best described as a conversation between the clinician and the patient in which they figure out together what to do to address this patient’s situation.”**³¹

The mechanical approach to implementing SDM seems to disturb the spirit of a personalized strategy for a particular patient. There are some fundamental components to include in a conversation. Clarify the patient’s understanding of their condition. Identify the issue requiring treatment. Offer and describe options for treatment, emphasizing the advantages and disadvantages of each. Develop an understanding for the patient’s values and how they may affect preferences for treatment. What matters most to the patient? Review the understanding of the patient’s preferences and move toward a decision based on a combination of available treatment data and the patient’s preferences.

The ED may not lend itself well to the original approach to SDM using interventions crafted by specialists, hospitalists, and primary care providers. These tools include risk calculators, decision aids, and conversation aids. Many of these were used outside the clinical encounter. Patient deliberation regarding options is a key task supported by SDM. Implementing SDM may not always be feasible in the ED with the pressures of acuity, flow, time, and variable volume.

TABLE 1-8 The Order for Surrogates for the Delegation of Decisions

Spouse
Adult child who has the consent of other children
Majority of adult children
Parent
A person authorized by the patient
Nearest living relative
Clergy member

SDM is already occurring in the ED as we work with patients on timing of cardiac disease risk stratification, choice of imaging modalities, wound care methods, and many other procedures and pathways.

SPECIAL CIRCUMSTANCES

Consent may be obtained over the telephone if the patient is unable to consent, the surrogate is not on premises, and the surrogate is only reachable by telephone. Have two persons on the phone with the surrogate during the consent process. Note the person's name and relationship on the consent. Have both persons on the phone sign the consent as witnesses. The general order of surrogacy is noted in **Table 1-8**.

Other issues with consent arise in the ED. A person in custody retains their right to consent except in emergencies and under court orders. Contact a minor's parent or guardian for consent if they are in custody except in an emergency, under a court order, or in a situation described previously. A minor placed in adoption or in the custody of the county or state requires contact with the welfare department for consent unless in emergency. A minor serving in the U.S. Armed Forces may give consent. Pregnant minors may consent to all care related to the pregnancy and newborn.

SUMMARY

The informed consent should be performed by the EP performing the procedure. Do not have the nurse obtain the consent. A written informed consent is preferred over a verbal consent. The written consent is a record of the verbal consent. Obtain verbal consent when the patient is unable to write. Have the verbal consent signed by two witnesses to the consent. The signed consent for treatment when the patient registers is not a substitute for a consent form for the procedure. Know the institution and state requirements for consent. Involve the ethics committee if time allows.

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2

Against Medical Advice

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INTRODUCTION

Patients electing to leave against medical advice (AMA) represent a growing population in the United States and provide unique challenges to the Emergency Physician.¹ **Discharge AMA is defined as the patient leaving before the Emergency Physician finishes the evaluation and establishes the disposition.**² It is estimated that 1% of Emergency Department visits result in a discharge AMA.^{3,4} The prevalence rate of leaving AMA varies between Emergency Departments.⁵ Discharge AMA patients often present again within a few days, resulting in increased costs associated with repeat testing and higher acuity therapeutic interventions due to worsening of their condition.³ The AMA patient has an increased risk of repeated admission, increased admission length of stay, increased morbidity, and increased mortality.^{2,6-17} This chapter provides an overview of the legal obligations to treat and elements associated with the refusal of care and discusses special populations that may be encountered.

Start with the assumption that the patient can make their own decisions, unless there is suspicion otherwise.¹⁸⁻²¹ This practice is consistent with general principles of patient autonomy. **Any decisions made must be in the best interest of the patient.** Lack of decision-making capacity requires an assessment and documentation of how this was determined (Table 2-1). Lack of capacity requires an impairment of the patient's brain or mind significant enough to interfere with decision-making. The determination of decision-making capacity is specific to a relative point in time and does not apply to later decisions. The CURVES mnemonic was developed to be used in an acute setting such as the Emergency Department (Table 2-1).

The patient has their own reasons, good or not, for leaving AMA. Not every decision by a patient is considered reasonable by the Emergency Physician.^{15,21} Patients often present voluntarily to the Emergency Department for evaluation and management. **Leaving AMA can be considered a withdrawal of the patient's consent signed when they initially presented for evaluation.**²²⁻²⁴ **The patient has the right to participate in the medical decision-making process and may refuse any care offered.**¹⁸⁻²⁰ It may be impossible to change a patient's mind once they decide to leave AMA. Sometimes it is

TABLE 2-1 The U and I GLAD and CURVES Mnemonics for Determining a Patient's Decision-Making Capacity

U and I GLAD

U—understanding of the procedure/discussion
I—impairing conditions
G—goals and values
L—logic used to decide
A—actual functioning
D—danger or risks of decision

CURVES*

Communicate: Is the patient able to choose and communicate this choice?
Understand: Does the patient understand the alternatives to treatment, benefits of treatment, and risks of leaving?
Reason: Can the patient make a rational choice?
Values: Is the patient's choice consistent with their values?
Emergency: Is there impending risk to the patient?
Surrogate: Are there patient surrogates available? Is there any documentation guiding treatment (e.g., advance directives)?

*The first four are for decision-making capacity. The last two are for treatment without consent.

TABLE 2-2 The Misconceptions Involved with Leaving AMA^{4,5,22,25,26}

AMA means the patient leaves with nothing
Blood alcohol predicts decision-making capacity
Decision-making capacity is all-or-nothing
Decision-making capacity is consistent over time
Determining decision-making capacity compromises patient safety
Forms signed by the patient offers legal protection
Insurance will not pay if leaving AMA
Leaving AMA means you can't be sued
Legal competence equates to decision-making capacity
Minors cannot give consent
Only Psychiatrists can make an accurate assessment of decision-making capacity
Psychiatric diagnoses negate a patient's decision-making capacity
The AMA form must be signed

essential to treat the patient against their wishes (e.g., altered mental status, homicidal patients, life-threatening situations, public health risk with meningitis or tuberculosis, or suicidal patients). Document these exceptions clearly in the medical record.

Many Emergency Physicians struggle internally with the AMA patient. They want to allow the patient autonomy in the decision-making process while maintaining what they believe is in the patient's best interest (i.e., beneficence). A patient going against the Emergency Physician's recommendations may set up a poor physician-patient relationship for the encounter.

MISCONCEPTIONS OF LEAVING AMA

There are many misconceptions involving the patient who is leaving AMA (Table 2-2).^{4,5,22,25,26} The main one is that a patient leaving AMA needs no further care. Offer pain medications for the patient's condition when appropriate. Do not withhold pain medications. The use of these drugs may make the patient more agreeable to completing the work-up and recommendations. This can be a new starting point and prevent the patient from leaving AMA. Offer several options for treatment if the patient refuses the primary and most ideal option. Many Emergency Physicians need to be educated regarding the misconceptions surrounding the patient leaving AMA.

RISK FACTORS FOR LEAVING AMA

Specific groups and complaints are associated with leaving AMA (Table 2-3).^{10,16,17,27-34} Many complaints are associated with extensive and prolonged work-ups. Administrators and Emergency Physicians should anticipate the needs of this group and proactively intervene to improve upon completion of the planned work-up. Early identification of these patients may prevent discharges AMA and negative outcomes. Develop strategies to prevent patients leaving AMA. Be proactive to address anger, anxiety, and emotional distress among patients.

TABLE 2-3 The Risk Factors for Leaving AMA^{10,16,17,27-34}

Abdominal pain	Lack of primary physician
Adolescents who register themselves	Lack of social support
Age 19–40 years	Lower socioeconomic status
Alcohol-related disorders	Lower triage categories
Black	Male
Chronic disease	Nonspecific chest pain
Headache	Prior AMA discharge
Hepatitis	Psychiatric disorders
Homelessness	Sickle cell anemia
Human immunodeficiency virus	Seen within last 72 hours in an Emergency Department
Lack of commercial insurance	Substance abuse
Lack of insurance	

TABLE 2-4 The Reasons Given for Adults and Children Leaving AMA^{5,6,9,14,16,17,25,31,34-41}

Anxiety about other children at home	Job issues for other family members
Change their mind	Job issues for themselves
Chronic disease	Lack of confidence in health care system
Concern for pets	Lack of confidence in physician
Conflict with child caregivers at home	Living away from home
Delays in treatment	Long waits
Disagreements with physicians	Outside obligations
Dissatisfaction with care	Poor communication with physician
Elderly parents at home	Prolonged hospital stay
Faith in local healers	Refusal of referral
Faith in religious beliefs	Refusal of surgery
Faith in social customs	Second opinion
False perception of improvement	Spontaneous resolution of illness
Finances	Spontaneous resolution of pain
Frequent blood sampling	Transportation issues
Hunger	Travel issues
Improvement with treatment	Unknown (not noted)

Improve physician–patient communication. Nurses are often first to know the patient wishes to leave AMA. Train the nurses to proactively address concerns that may prevent a patient from leaving AMA. Consider involving case managers or social workers to ensure patient needs are met and improve communication.

REASONS FOR LEAVING AMA

Patients give many reasons for leaving AMA (Table 2-4).^{5,6,9,14,16,17,25,31,34-41} The main reasons include communication issues, drug addiction, long wait times, inadequate pain control, outside obligations, physician personality, second opinions, and teaching hospital environments. Knowledge of the reasons for leaving AMA can improve the approach and management of these patients. Understanding the reasons for leaving AMA may allow Emergency Physicians and hospital administrators to address these issues and minimize adverse outcomes among this group. These patients are at risk for excessive morbidity, mortality, and increased associated costs.

Question the reason(s) the patient desires to leave AMA. Sometimes the resident or nurse can obtain this information as they typically have a closer relationship with the patient.²⁵ Consider involving family members and friends of the patient as allies to assist in convincing the patient to follow the recommendations. They may help the patient better understand the treatment and the consequences of the lack of treatment and reveal additional patient questions to be addressed. Apologize for any waits. **Do not become angry or frustrated when the patient wants to leave AMA.** This only upsets the patient and encourages them to leave even more. **Ensure the patient knows that you are on their side and have their best interest in mind.** Do not refuse to provide treatment if the patient wants to leave AMA. **Offer any treatment acceptable and appropriate for the patient's condition that they will accept.** Some care is better than no care.

DEFINING THE DUTY TO TREAT

Emergency Departments across the United States are bound by the Emergency Medical Treatment and Active Labor Act (EMTALA) requiring them to provide medical screening examinations and stabilization for all patients who present to the facility.⁴² This obligation extends to Emergency Physicians who work at facilities that participate in one or more Centers for Medicare and Medicaid Services (CMS) programs. The timeline to which the obligation extends has

been debated in the courts where allegations argue that EMTALA may even continue into the inpatient environment, as seen in the 2009 court case of *Moses v. Providence Hospital*.⁴³ One possible way the duty to treat may be terminated is via a patient's informed refusal of care.⁴⁴⁻⁴⁶ Great care must be taken in completing the process of discharging a patient AMA in terms of fulfillment of EMTALA obligations. The patient often has a high risk of readmission and increased morbidity and mortality.^{2,6-17,47,48}

ELEMENTS ASSOCIATED WITH REFUSAL OF CARE

Consent must be obtained prior to the treatment of a patient to avoid committing battery or the unwanted touching of a person (Chapter 1). Similarly, inform the patient completely before they make a final decision to refuse care.²⁶ The informed refusal of care is a process and requires more than having the patient simply sign the AMA form.

The patient may elect to refuse any or all treatment offered them during the hospital or Emergency Department encounter. **It is the responsibility of the Emergency Physician to evaluate the patient and ensure that all the elements listed below are met and then to clearly document the patient's informed decision-making process leading to refusal of care or discharge AMA.**

DECISION-MAKING CAPACITY

Decision-making capacity is sometimes simply referred to as capacity. It is determined by a physician and represents the patient's ability to make rational decisions.^{21,49} Any physician, including Emergency Physicians, who cares for a patient can clinically determine if the patient has decision-making capacity.²⁵ Consulting a Psychiatrist or their delegated representative (e.g., Psychiatric Nurse Practitioner, Psychiatric Physician Assistant, or Psychiatric Social Worker) is not necessary in most cases. It may be necessary to contact a Psychiatrist or their representative on a case-by-case basis.²² This is true when decision-making capacity cannot be determined or the patient is to be involuntarily committed (e.g., danger to others, danger to self, or incapable of self-care) to a facility. Decision-making capacity changes, is task-specific, is not all-or-nothing, and can be affected by many things (e.g., fatigue, medications, psychiatric disorders, and stress).

The term "decision-making capacity" is used by physicians. This is opposed to the legal term of competence as used by the courts.^{25,50,51} These terms are often incorrectly used interchangeably by physicians. Only a court of law can decide competency and appoint a guardian to make important decisions for the patient.

The Emergency Physician must question the patient to determine if the patient has decision-making capacity (Table 2-1). The patient must have the ability to understand information related to their condition and treatment decisions. It is not possible to assess decision-making capacity unless the patient is fully informed. **The patient must have the ability to appreciate the significance of the information presented to them. The patient must explain the information presented rather than simply repeating it back. The patient must have the ability to weigh the treatment options and demonstrate reasoning. The patient must express their choice for treatment or refusal of treatment.** Failure of one part can result in lack of decision-making capacity. All this must occur in the patient not under the influence of alcohol or drugs or not with an altered mental status. The patient must not have a reason for involuntary commitment to a facility.

The Emergency Physician must first ensure the individual patient has the capacity to participate in their own decision-making process prior to engaging in a refusal of care discussion.²⁵ **Always ensure that**

capacity exists because the decision to refuse treatment may be viewed as unreasonable. The additional use of resources from psychiatry, if available, may be of benefit. Consider other conditions that affect a patient's ability to fully participate in their care (Table 1-6). Correct any reversible causes affecting the patient's decision-making capacity. A discussion must ensue regarding the disclosure of risk following a careful review of the patient's decision-making capacity.

Formal and structured assessment tools are often used to determine decision-making capacity.^{52,53} These tools include the Aid to Capacity Evaluation (ACE), MacArthur Competence Assessment Tool (MacCAT), Montreal Cognitive Assessment (MoCA), and University of California San Diego Brief Assessment of Capacity to Consent (UBACC). These tools use standardized questions and scoring systems to objectively determine decision-making capacity. No specific test of decision-making capacity is better than another test. The tests take time to assess the patient and generate a score. Most of these tests are unfamiliar to the Emergency Physician who is untrained with their use.

Lack of decision-making capacity or refusal of treatment may allow the Emergency Physician to share information with friends and relatives. A person close to the patient can often convince the patient when the Emergency Physician is unsuccessful.²¹ This option can be explored to assess the patient's best interest. The involvement of others shows that the Emergency Physician is advocating for the patient in solicitation of additional input to make the right decision. Another physician may intervene to provide care if a patient and Emergency Physician disagree. Consider another Emergency Physician taking over the care of the patient. Consider calling the Primary Physician if the patient has one. Offer to transfer the patient to another facility. Clearly document all offers and refusals.

DISCLOSURE OF RISK

The Emergency Physician must follow the principles established in the *Canterbury v. Spence* decision when disclosing risk.⁵⁴ This requires disclosure of the condition being treated, proposed treatment being offered, alternative treatment options, and risks associated with both treatment and refusal. **Take care to ensure the patient understands all available options.** Engaging family members, friends, or on-duty Emergency Department personnel in this discussion may prove beneficial.

INSURANCE PAYMENTS

A fallacy sometimes conveyed to patients is the idea that their insurance will not pay for the visit should they elect to leave AMA.^{4,25,55} Many Residents and Attending Physicians believe insurance payments will be denied if the patient leaves AMA.⁴ They often inform the patient of this to coerce the patient in remaining.^{2,4} There are no documented instances of insurance companies denying the bill of a patient leaving AMA.⁴ There are no policies of payment denial for leaving AMA. Insurance companies determine payment based on medical necessity. The Arkansas Supreme Court in *Loretta Long v. Arkansas Blue Cross and Blue Shield* ruled that services prior to discharge are payable because of benefits due to the patient before the AMA.⁵⁶

Statements addressing the lack of insurance payment must be avoided verbally and on the AMA form.^{2,15} This appears to be an "urban legend" passed down during residency training and often persists throughout a physician's career. There is often a breakdown in the physician-patient relationship when the patient is falsely warned of negative financial consequences if leaving AMA. The insurance payment should not be a concern when caring for the patient considering leaving AMA. **The Emergency Physician must respect the patient's autonomy when they do not agree.** Resident and Attending

Physicians need to be formally educated on what to say, document, and do when the patient wants to leave AMA.

SPECIAL POPULATIONS

Obtaining a refusal of care or discharging AMA can be an anxiety-producing encounter while trying to provide care. This situation can become further complicated when a patient has consumed alcohol, is currently incarcerated, is a minor, or has an active psychiatric diagnosis. There are unique features to consider when dealing with these populations.

INTOXICATED PATIENTS

Patients who have consumed alcohol represent the most difficult of the special populations from whom to obtain informed consent or refusal.²⁹ The blood alcohol concentration can affect patients differently. The Emergency Physician often assumes that the acutely intoxicated patient lacks decision-making capacity. **The patient's decision-making capacity must first be established by the same standard as an individual who has not consumed alcohol before discharging an intoxicated patient AMA.**⁵⁷

Each individual state may have specific laws regarding the ability to give consent while intoxicated. An intoxicated patient was considered unable to provide consent and a diagnostic procedure was completed against his request in *Miller v. Rhode Island*.⁵⁸ A New York court found the hospital and Emergency Physician could not detain an intoxicated person against their will in *Kowalski v. St. Francis Hospital*.⁵⁹

Determining the degree of intoxication presents a challenge. Emergency Physicians have been previously shown to have poor ability in determining clinical sobriety. The patient often does not remember things that occurred while intoxicated when they become sober.⁵⁷ Serum and/or breath testing of alcohol does not directly correlate to a patient's degree of intoxication and is likely not helpful in determining capacity.^{60,61} Documenting the patient's activities and ability to eat, walk, engage in conversation, and to rationally understand questions and discussions can be helpful as this suggests their ability to understand care options and treatment plans. Acutely intoxicated patients may have decision-making capacity regardless of their blood alcohol concentration.^{15,57,62}

INCARCERATED PATIENTS

Patients who present in the custody of police or a correctional institution (e.g., jail or prison) represent another special population when considering the ability to refuse medical care. **Prisoners have the same rights to refuse or submit to medical care as the general population.** The standards described regarding capacity remain the same.⁶³ Unique to the incarcerated patient is their inability to determine where they are incarcerated. The correctional institution responsible for the patient may choose to supervise them in a jail ward or within a medical setting while respecting their right to refuse treatment if a patient who has capacity elects to refuse care.⁶³

MINORS

Minors (e.g., those < 18 years old) represent a special population of patients who present to the Emergency Department and may elect to refuse care. State laws vary regarding types of treatment, age of consent, and conditions that apply to a minor who presents for emergent care. A minor making one decision may not have the capacity to make other decisions. Some states allow minors to

obtain contraception, treatment for sexually transmitted infections, and treatment for substance abuse without parental permission.

Minors must be emancipated and can be determined to have decision-making capacity if they meet the following qualifications. The qualifications for emancipation vary between states. They must have the ability to understand the diagnosis, treatment or lack of treatment, and that the choices have consequences. They must have the ability to understand the information presented to them. They must have the ability to make a decision based on the information they receive from the Emergency Physician. Minors must have the ability to understand the intervention, its benefits, and its risks. They must have the ability to understand any alternatives, along with the associated risks and benefits. The minor must make a choice between treatment and lack of treatment, or choose another person to make the decision on their behalf (e.g., usually a parent or spouse). The minor cannot be coerced or forced into a decision, and pressure should never be applied.

What about the minor who lacks decision-making capacity for any reason? Decisions are often made by parents or legal guardians.⁵ Make an effort to involve the minor in order to gain their cooperation. Provide them with information in terms that they will understand based on their age.³⁵ Minors are vulnerable because they may not adequately understand the ramifications of a decision to leave AMA. Leaving AMA may not be in their best interest.

States work under the principle of *parens patriae*, or parent of the state. The state has an interest in the welfare of its citizens. This includes minors. The specifics regarding *parens patriae* vary among the states. *Parens patriae* is a mechanism for the state to override the rights of a parent and provide their substituted consent. ***Parens patriae* is not an option left to the Emergency Physician or hospital as a mechanism by which to override parental control.** Providing care in violation of parental consent may make an Emergency Physician and hospital liable for violating consent. **Do not proceed with care over parental objections without authorization from state authorities unless it is necessary to preserve life or limb.** Treatment in a true life-threatening situation can be considered prevention of child abuse, and the Emergency Physician may take emergent custody of the child. Get a second physician, if available, to agree and attest via signed documentation in a life-threatening situation to override the parents until the courts can render a decision. This may require separation of the minor from the parents with assistance from police or security.

PSYCHIATRIC PATIENTS

An active psychiatric diagnosis does not automatically mean the patient lacks decision-making capacity. An active psychiatric diagnosis may result in the lack of decision-making capacity. A psychiatric patient managed with appropriate medications can easily make decisions. Psychiatric patients may be in denial, dissatisfied with their treatment, fearful, mistrustful of the medical system, and/or paranoid. It may be necessary to contact a Psychiatrist or their delegated representative when managing psychiatric patients who refuse care.^{22,52} This is true when decision-making capacity cannot be determined or in the setting where the patient is to be involuntarily committed (e.g., danger to others, danger to self, or incapable of self-care) to a facility.

PATIENT-CENTERED APPROACH

The patient-centered approach uses shared decision-making in a collaborative effort between the Emergency Physician and patient (Table 2-5).^{2,64,65} It takes into account scientific evidence along with patient goals, preferences, and values. Shared decision-making is

TABLE 2-5 The Patient-Centered Approach for Leaving AMA⁶⁵

Determine if the patient has decision-making capability
Is the patient alert and oriented?
Does the patient have mental impairment?
Does the patient have active mental illness?
Is the patient under the influence of alcohol or drugs?
Determine the patient's preferences and values
Don't stigmatize the patient
Don't berate the patient
Don't coerce the patient
Don't express frustration
Don't express anger
Don't mention insurance will not pay if they leave
Assure the patient the decision-making has nothing to do with their ability to pay
Assure the patient the decision-making is in their interest of well-being
Involve family members personally or by phone
What is the treatment plan if staying?
Discuss the benefits and risks if staying
Discuss how treatment will differ as an outpatient
Discuss the benefits and risks if leaving
Make and provide an outpatient treatment plan if patient leaves AMA
Provide follow-up
Provide prescriptions
Provide discharge instructions
Document everything in the medical record

based on the Emergency Physician's recommendations with the patient's right to accept or refuse the recommendation. Consensus and agreement are made between the Emergency Physician and the patient when determining the goals of care that affect the patient. A more agreeable plan is made when the Emergency Physician has clear information regarding the patient's motivation and values. This involves the exchange of information, deliberation, and decision-making. Good communication with the patient is essential to avoid dissatisfaction and frustration of the Emergency Physician and the patient.

The choice to designate the patient leaving AMA is made by the Emergency Physician when they do not agree with the patient decision. A patient-centered approach is used to support informed patient choices even if they conflict with physician recommendations. Be empathetic and nonjudgmental toward the patient. Engage the patient politely to determine their motivations behind their desire to leave AMA. Explore this motivation through discussion and avoid conflict that undermines the physician-patient relationship. Embrace and respect the informed decision made by a patient who has decision-making capacity.

DOCUMENTATION

Emergency Physicians and hospitals are not unequivocally protected from lawsuits and successful litigation resulting from bad outcomes simply because the patient signs the AMA form.^{5,22,34,36,66,67} This is contrary to the belief of many physicians that the AMA form offers legal protection if the patient rejects their recommendations. Courts have found the AMA discharge terminates the physician-patient relationship and the physician's duty to treat.^{45,46} Family members often believe more could have been done for an ill patient despite the irrationality of their thinking.²² **The attending Emergency Physician, and not a resident or nurse, must interact with the patient contemplating leaving AMA and document the discussion.**

The Emergency Physician must document the situation and discussions to memorialize the encounter.⁶⁶ Clearly document the efforts offered to the patient to get them to stay. Emergency Physicians

do a poor job of documenting the encounters for patients leaving AMA.^{32,36,68,69} The documentation involves extra time and disrupts the workflow of the Emergency Physician. The Emergency Physician may be sued years after the encounter. They may only have the encounter documentation to rely upon to refresh their memory.

Many institutions elect to use standardized forms to complete the discharge AMA process (Figure 2-1). Many Emergency Physicians use the hospital AMA form without a clear reason. It is used to document patient symptoms, to facilitate discussions with the patient, to improve documentation, and for the ease of completion.⁷⁰ The

73 **Prototype
EMERGENCY PHYSICIAN RECORD
Competency for AMA Discharge
or Treatment without Consent**

- All clinical information and issues reviewed / discussed with family, patient, other _____
- Relevant issues reviewed / discussed with patient / family
- No criteria for involuntary commitment

Cognition-

- Oriented to person, place, time _____
- Gives appropriate answers _____
- Speaks coherently _____
- No slurred speech _____
- No signs of psychosis _____
- No tangential thinking _____
- No auditory hallucinations _____
- No visual hallucinations _____
- No delusional thinking _____
- Abstract thought process intact _____
- No suicidal ideations _____
- No homicidal ideations _____
- Gives rational explanation for refusal of care _____

Comprehension-

Aware of suspected diagnosis suggested by initiated screening exam: _____

Acknowledges understanding of reasons for recommendations regarding:

- Medical treatment / intervention _____
- Medical tests / procedure _____
- Transfer to other medical facility _____
- Admission to facility _____
- Further observation / testing _____

The following risks of refusal of recommended care were disclosed to patient, and patient acknowledged risks:

RISKS	DISCLOSED	ACKNOWLEDGED
Death	_____	_____
Neurologic Dysfunction	_____	_____
Permanent mental impairment	_____	_____
Loss of limb	_____	_____
Loss of sexual function	_____	_____
Loss of current lifestyle	_____	_____
Worsened / chronic cond	_____	_____
Other _____	_____	_____

Suspected diagnosis(es) based upon initiated medical screening exam: _____

Outpatient treatment: _____

Follow-up plan: _____

Offered transfer / other physician evaluation Patient Declined Not Feasible

Offered to call patient's physician Patient Declined Not Available

Offered to speak with family / relative Patient Declined Not Available

CLINICAL IMPRESSION

Competent to make decisions regarding the medical care being offered?
 ___YES _____NO

Discharge Instructions / Arrangements

- Discharge instructions were given to the patient / responsible party.
- Discharge instructions were NOT given to the patient / responsible party because:
 - Patient / responsible party eloped
 - Patient / responsible party refused
- Informed patient that they could return at any time if problems develop or if they change their decision regarding care.

Treating PA _____

Treating Physician _____

STATEMENT OF REFUSAL OF CARE:

(Obtain signature by patient / responsible person if possible)

I have read this paragraph. I understand that a doctor at this hospital wants to give me certain medical care. The doctor explained that care to me, and I understand what that care is. The doctor also explained to me what could happen to me if I leave here without having that care, and I understand what was said. I want to leave this hospital without receiving the recommended care.

I know that I am welcome to return to this hospital at any time to receive the recommended care or any other care that I may need at any time, regardless of my ability to pay for such care.

Patient / Person Signing on Patient's Behalf

Witness

- Patient / responsible person refused to sign this statement when requested to do so but indicated refusal of care in the following manner:

Other Comments: _____

Circle positives, backslash negatives, check normals

FIGURE 2-1. A commercially available sample documentation for leaving AMA. (Courtesy of T-System Inc., Dallas, TX.)

form is often used to avoid further conversations with the patient. This “one size fits all” form is often just signed by the upset patient and witnessed by the staff. Signing the AMA form can appear to the patient as coercive or defensive and further exacerbate the poor physician–patient relationship.⁷⁰ The use of standardized forms has been shown to improve documentation of required elements. **Complete documentation and the patient’s signature on the AMA form are not a substitute for the informed refusal discussion.**^{34,71} The use of a hospital AMA form does not substitute for clear and specific documentation of the informed refusal documentation. Laws regarding liability are defined at the state level and vary based on jurisdiction.³⁴ Consider the AMA form as a document to make the patient aware of the benefits and risks associated with leaving AMA.³⁶ The Emergency Physician may elect to individualize and dictate the discussion with the patient (**Figure 2-2**). Document the exact words used when speaking to the patient.

Address the following elements when using a template form or directly documenting in the electronic medical record according to EMTALA guidelines: explain the clinical scenario, explain admission or treatment is medically advised, document that admission or treatment is refused by the patient, explain the potential consequences of self-discharge, and document that the patient takes responsibility for any adverse outcomes.^{34,42} Include the date of the discussion, the time of the discussion, and those persons (e.g., family, friends, and/or hospital personnel) present. The patient should have decision-making capacity and not be under the influence of alcohol or drugs. The Emergency Physician and the patient should sign if electing to use a form. An alternative is to print out the medical record and have the patient sign it. Document the lack of the patient’s signature if they refuse to sign, and have a witness to the refusal sign as well.

DISCHARGE

Provide the patient with a clear understanding of the discharge plan and alternative outpatient therapies.^{15,68,72-74} Provide any prescriptions to the patient that may be required for an alternative treatment when leaving AMA. Provide prescriptions for pain control if appropriate for the patient’s condition. Explain what to look for at home, medical reasons to return, and encourage the patient to return if they change their mind. Provide follow-up plans to the patient. Consider calling the follow-up physician to discuss the case, what was done, and why the patient left AMA to ensure appropriate care. Notify police and/or a social worker in cases of suspected child and elder abuse.

Patients electing to leave AMA can stimulate negative feelings among Emergency Physicians and staff. **Ensure that the patient feels welcome to return and resume care at any time.**^{66,74,75} This includes persistence of symptoms, worsening of symptoms, or if the patient changes their mind. **Continue to be cordial and do not give the impression that it will be held against the patient if they choose to leave AMA.** Consider calling the AMA patient in 24 hours to ensure they are better, to inquire into their safety and well-being, and to see if they have any questions. Document this discussion.

Avoid a punitive encounter to increase the likelihood that patients will obtain the care needed.^{15,74,75} The ability of the patient or their insurance carrier to pay is not an issue for the Emergency Physician to discuss with the patient. **The discharge and disclosure process must be free of coercion.** End the encounter on good terms with the patient. **Report all patients that leave AMA to risk management for review.**

The patient has decided to leave against medical advice because _____
 _____. The patient has a normal
 mental status, is not under the influence of alcohol or drugs, and has adequate decision-making
 capacity regarding medical decisions. The patient appears to have insight, judgment, and
 reason. The patient refuses observation or admission and wishes to be discharged. The patient
 presents with _____
 and I am concerned for _____.
 Staying for observation or admission we may be able to better treat you. The benefits and risks of
 leaving have been discussed and include _____
 _____,
 worsening illness, chronic pain, disability, and death. The benefits of observation or admission
 have been explained including the availability of nurses and physicians, diagnostic testing,
 monitoring, and treatment. The patient understands and can state the risks of leaving and benefits
 of observation or admission. This was witnessed by me and _____.
 The patient was given the opportunity to ask questions about their medical condition, the risks of
 leaving, and the benefits of staying. The patient was treated with _____
 _____.
 I offered to treat the patient with _____ if they stayed but the patient refused. I have spoken
 with Dr. _____ and the patient is to be followed up on _____ with Dr.
 _____. The patient was given prescriptions for _____
 _____. The patient was given discharge
 instructions that included they may return at any time for care.

FIGURE 2-2. A hospital-made sample documentation for leaving AMA.

SUMMARY

Emergency Physicians face ethical, legal, and medical considerations as they encounter patients presenting for care who may ultimately elect to terminate their care plans in whole or in part. An effort should be made to recognize patients at risk for leaving AMA and attempts made to educate them as to the benefits and risks of leaving AMA. Maintain good communication with the patient. Ensure that the patient has no reason to be involuntarily hospitalized. Ensure the decision-making capacity for informed decision-making and clearly document these encounters. Fully inform the patient by reviewing the risks associated with failure to complete the work-up in terms of worsening morbidity and mortality. Encouraging the patient to return at any time for further evaluation and treatment is the best practice model for navigating potential pitfalls. The Emergency Physician should always fully explain the discharge process and follow-up plan and prescribe any appropriate medications despite the patient's choice to leave AMA.

The attending Emergency Physician is responsible for the discharge AMA. Residents and nurses can help with the process. Nurses can discharge the patient in the usual manner once the attending Emergency Physician fills out the documentation. Nurses can ensure the patient has all requirements (e.g., follow-up, instructions to return, prescriptions, questions answered, etc.) upon discharge.

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3

Family Presence

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INTRODUCTION

The topic of family presence has been discussed for over 30 years, and yet it remains controversial.¹⁻⁶ The proponents of the family being present during the resuscitation argue that it is the patient's and family members' basic human right to be present during the resuscitation. They maintain that barring or excluding families from

witnessing critical events is paternalistic. Many people have already witnessed critical events in public, on television shows, on the news, on cable, and on reality shows. As a result, families are somewhat prepared and have expectations. Opponents of the family being present during resuscitation are concerned with litigation, the emotional fallout from the witnessed trauma, and disruptions during the resuscitation. The authors of this chapter strongly support the family being present during a resuscitation.

This chapter is designed to provide a reference for the Emergency Physician (EP) regarding the family being present during the resuscitation of patients in the Emergency Department (ED). It reviews the current literature on this topic and offers some suggestions.

BACKGROUND

The notion of the family being present during resuscitation dates back to the 1980s. Foote Hospital in Michigan started a program in response to families that wanted to be present during resuscitation.⁷ Data from this program were presented in 1992 as formative research and have continued to be substantiated by more current publications.⁸ The current literature shows the perspective of both the patient and the family.⁹⁻²² Most of those surveyed, including the parents of children, feel it was their right to be present during the resuscitation or invasive procedure of a family member. Furthermore, when family members are present during the resuscitation, they are more likely to believe that everything that could have been done was done for their family member.²³ In addition, 67% of parents who were present during the resuscitation of deceased children felt that being present during the resuscitation helped them cope with the death of their child.²³

Most patients with a critical illness would like to have their families present during resuscitation.^{14,21} Concern that family members will suffer from posttraumatic stress disorder (PTSD) after witnessing their loved one resuscitated has not been substantiated.^{24,25} A recent study of 65 family members of patients undergoing cardiopulmonary resuscitation (CPR) showed no difference in PTSD or depression in comparison to those who did not witness the resuscitation.¹⁶ In a multicenter randomized study, PTSD-related symptoms were significantly lower in family members who witnessed the resuscitation than the control group.¹⁷ Anxiety was also significantly lower in the intervention group that witnessed the resuscitation compared with those who did not witness the resuscitation. At 20 months of follow-up, there were no medicolegal claims of damages from the study participants.¹⁷

Professional organizations have positively endorsed the family being present during resuscitation.^{26,27} The main points from the Emergency Nurses Association (ENA) position statement are listed in **Table 3-1**.²⁶ The American Heart Association (AHA) published in its 2010 guidelines for cardiopulmonary resuscitation and emergency cardiovascular care science that, "In the absence of data documenting harm and in light of data suggesting that it may be helpful, offering select family members the opportunity to be present during a resuscitation is reasonable and desirable assuming that the patient, if an adult, has not raised a prior objection."²⁷ The AHA identified this as a Class IIa recommendation with a level of evidence "C" for adults and a Class I recommendation with a level of evidence "B" for pediatric patients. In 2015, the European Resuscitation Council recommended that family be present during a resuscitation.²⁸

Health care providers generally support the family being present during resuscitation and have identified barriers to its implementation.²⁹⁻³³ Between 86% and 96% of nurses support the family being present during resuscitation compared to 50% to 79% of physicians.²⁹ The support decreases with lower levels of training.^{5,30} The problems that health care providers perceive include

TABLE 3-1 The Emergency Nurses Association Position Statement on the Family Being Present During the Resuscitation

- There is some evidence that patients would prefer family members to be present during the resuscitation.
- There is strong evidence that family members wish to be offered the option to be present during invasive procedures and resuscitation of a family member.
- There is little to no evidence indicating that the practice of a family member being present is detrimental to the patient, the family, or the health care team.
- There is evidence that family members being present does not interfere with patient care during invasive procedures or resuscitation.
- There is evidence that health care professionals support the presence of a designated health care professional assigned to the family members present to provide explanations and offer comfort.
- There is some evidence that a policy regarding family member presence provides structure and support to health care professionals involved in this practice.
- Family member presence during invasive procedures or resuscitation should be offered as an option to the appropriate family members.
- Family member presence should be based on written institution policy developed in cooperation with the departments of social services, pastoral care, risk management, nursing, and medical staff (plus others as appropriate for the institution).
- Health care organizations should develop and disseminate educational resources to the public concerning the option of family presence during invasive procedures and resuscitation.

Source: Modified from reference 14.

anxiety, emotional stress, family litigation, limited space in the room, not enough staff to provide support to the family, prolonging a futile resuscitation, and staff distraction.³⁰⁻³⁵ The health care provider should always show respect for the patient, whether or not the family is present.³⁶ These concerns and fears have not been supported in the literature.² In a study from the Children's Medical Center of Dallas, within the study period, no interruptions occurred, none of the family members were escorted out, and no disruptive behavior occurred in 100% of cases when family members were present during the resuscitation.³³ Other studies have shown that the resuscitation or invasive procedure was not affected by the presence of family members.³⁷⁻⁴¹

HOSPITAL POLICIES

Several studies have focused on implementing hospital policies regarding the family being present during resuscitation.⁴²⁻⁴⁷ The ENA and American Association of Critical-Care Nurses (AACN) have presented specific guidelines to be included in the policies. These guidelines include the following. Describe the benefits of family presence from the perspectives of the patient, the family members, and the health care providers. Establish criteria to assess family members so that patient care is not interrupted or delayed. Identify criteria to screen family members before offering the option of being present during the resuscitation. Family members who might be excluded are those who exhibit altered mental status, combativeness, emotional distress, or intoxication. Involve the family members in the decision process regarding declaration of death, invasive procedures, or aftercare. The policy should offer the option of the family being present during the resuscitation and support family members who choose not to be present. The policy must specifically address any research approved by the hospital and conducted in the ED because patient recruitment can be difficult with the family present.⁴⁸ A health care facilitator should be designated to consult with the health care team, to obtain consensus, to ensure proper timing, and to support family members (before, during, and after the resuscitation or invasive procedure).⁴⁹ The facilitator can be a chaplain, nurse, respiratory therapist, social worker, or other

trained staff member. The option for family to be present during the resuscitation should not be offered if a facilitator is not available.^{50,51}

A survey of over 1000 nurses showed that the policies are not consistently established and that only 5% of nurses worked where policies were established.¹⁸ However, most health care providers who have experienced the family being present during the resuscitation would do it again.⁵²

PEDIATRIC CONSIDERATIONS

In July of 2014, a technical report titled “Death of a Child in the Emergency Department” was published jointly in *Pediatrics* and *Annals of Emergency Medicine*.⁵³ The report reviewed the literature and pointed out that, in the studies of pediatric trauma resuscitations, all the milestones of care were performed timely regardless of family presence.^{53,54} Most of the family members interviewed felt their presence was comforting to their children. However, a 2005 study found mixed results regarding child behavioral and emotional reflections about the family being present during the resuscitation.⁵⁵ In seven of the 17 studies, the family being present during the resuscitation resulted in a decreased level of distress. The other 10 studies demonstrated no significant difference between those who were present during the resuscitation versus those who were not. A common theme of these studies is that families believed everything was done for their loved one. In addition, numerous studies and position statements support the clinicians' ability to provide appropriate resuscitative care with the family present. O'Malley and colleagues point out this be done in the “setting of effective staff preparation, appropriate policy development and implementation, and, when staffing allows, providing designated personnel to attend to family members.”⁵³

Literature from the disciplines of pediatric emergency medicine, ethics, resuscitation, and nursing overall strongly supports the family being present during resuscitation. Multiple organizations, including the ENA, American Academy of Pediatrics (AAP), and American College of Emergency Physicians (ACEP), have published position statements recommending that all EDs that care for children have a policy regarding the family being present during the resuscitation of a loved one.⁵⁴

SUMMARY

The controversy of the family being present during resuscitation has existed for some time. Review of the current literature supports family presence to be an accepted concept and practice. Most family members who have been present during a resuscitation have verbalized that they would do it again. Family members who observed the resuscitation experience reduced guilt and reduced time to accept the patient's death. They start the bereavement process earlier. The literature supports having an experienced staff member present whose only job is to support the family members during resuscitation. Data do not support the idea that family members are traumatized during resuscitation or interfere with any procedures. Medical communities should continue their efforts in establishing clear guidelines and protocols for the family being present during a resuscitation. Although most of this chapter covered family presence during resuscitation, the same principles apply to family presence during invasive procedures.

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4

Procedures on Recently Deceased

Bryan Darger and Eric Isaacs

INTRODUCTION

An issue relevant to procedural skills in Emergency Medicine and other specialties is allowing learners to practice invasive procedures on the recently deceased.^{1,2} This often occurs immediately after the pronouncement of death and is a controversial practice. The use of the bodies of the dead for education has a long tradition in medicine. The use of the recently deceased is considered by some as a valuable resource because it improves the ability to save others in the future. Others believe consent is required from family members to preserve autonomy despite the uncomfortableness of asking for consent.

Teaching procedures have used various techniques (e.g., animals, cadavers, lectures, live patients, manikins, simulation, and videotapes). Each technique has advantages and disadvantages. These include cost, lack of reality, space, and time. The opportunity to practice lifesaving procedures is limited. This is especially true for realistic training.

Performing procedures on the recently deceased has been a topic of discussion over the past two decades and debated within the medical community. This chapter attempts to present a balanced overview of this topic and offer suggestions for best practices.

HISTORY AND CURRENT PRACTICE

Physicians and healers have been learning from the dead for millennia. The earliest-known description of circulatory anatomy is the Edwin Smith Surgical Papyrus from 1600 BC. Contemporary cadaveric dissection in the first year of undergraduate medical education training is a practice with a long precedent that has never been without controversy.

Various authorities (e.g., governments and religions) have restricted the practice of cadaver dissection for studying anatomy. A commonly cited belief is that the study or dissection of the dead without curative intent is tantamount to desecration of the corpse. There is a long intellectual and spiritual tradition of believing that the human body is sacred. This belief continues following death, and some reject dissection or manipulation as a form of desecration. This has been studied in the context of the autopsy. Some cultural or religious belief systems have requirements that the corpse of a decedent be buried whole and undisturbed. These beliefs may result in the reluctance of families to allow procedures or investigations on their loved ones after death.

An interesting footnote regarding the history of ambulance services is that they originally carried the dead to mortuaries in exchange for payment. The bodies of some patients were bought and sold to medical schools as teaching aids. Recently deceased bodies may offer the most lifelike opportunity for practicing new surgical procedures or learning anatomy.

Performing procedures on the deceased (e.g., central venous catheter placement or endotracheal intubation) is a long-standing tradition in medicine. Numerous authors have described the prevalence of this practice in the United States and abroad. This prevalence varies between specialties. More than 70% of neonatology training fellowships allowed trainees to practice endotracheal intubation and umbilical vein catheterization on recently deceased neonates.³ This practice has decreased over the past several decades, perhaps due to advances in simulation technology. A recently published survey of Emergency Medicine residencies reported that 47% of program

directors reported that this practice was ongoing at their institution, with or without official sanction.⁴

ETHICAL FRAMEWORKS AND OBJECTIONS

The general framework of medical ethics arises from four foundational principles (i.e., autonomy, justice, beneficence, and nonmaleficence). The question of whether this same framework can be readily applied to the topic of practicing procedures on deceased patients is a complex one because the “patient” is dead. The “patient” does not benefit from and is not harmed by the intervention. The “patient” does not have a formal moral standing. This may help the structured thinking about the topic.

The autonomy of a deceased person is questionable. Many do not make their preferences known before their death. The “patient” is not capable of voicing a preference or providing consent. This presents a problem for the requirement of autonomy unless these preferences were known beforehand. Collecting preferences after death is impossible outside of asking a proxy.

Beneficence and nonmaleficence are likewise difficult to consider with respect to the individual patient. The principle of beneficence may suggest that allowing a learner to practice a difficult and rare procedure on the newly deceased may allow future living patients greater chances at benefitting from an intervention and lessen the possibility of harm. A consequentialist ethical construct, a more utilitarian framework where the interests of an individual are subjugated to the interests of a larger population, might find that allowing a trainee to practice intubating someone who is dead meets the requirements of beneficence and nonmaleficence. This is due to the impact on future patients with a relative freedom from harm.

Consider the patients in whom this practice occurs to understand the principle of justice. The practice may not be equally distributed across different groups of patients or vulnerable populations (e.g., different financial classes, different sexual orientations, minorities, or those without families to speak on their behalf). It would fail this test of justice and be ethically wrong if one group were being used for procedural practice disproportionately.

PRACTICAL CONSIDERATIONS

Current practice attempts or has attempted to meet the above objections in different ways. Consent to perform procedures on the recently deceased is infrequently obtained. Policies regarding procedures on the recently deceased usually do not exist. Many lay people believe that practicing lifesaving procedures on the recently deceased is acceptable and that consent is required.^{5,6}

INFORMED CONSENT

Multiple studies have examined the practicality of obtaining consent from families to practice resuscitation skills on the recently deceased. Residents and medical students learn in their training to address bereaved relatives and to have difficult conversations. The use of a loved one for procedural practice after they are deceased is a request that is intuitively uncomfortable. However, many families have given informed consent to use recently deceased babies for intubation if it helped to save other babies in the future.³

The reliance on familial consent sometimes does not follow the patient’s wishes.⁴ Presumed consent is problematic since the patient does not receive the benefit of the procedure. Health care personnel and medical trainees are often apprehensive and uncomfortable when procedures are performed on the recently deceased without consent. Obtaining consent respects the family, health care personnel, and medical trainees.

In Ohio, a person can be charged for practicing procedures on the recently deceased. The charge is abusing a corpse. This is based on the revised Code ORC 2927.01. The Code states the following: “(A) No person, except as authorized by law, shall treat a human corpse in a way that he knows would outrage reasonable family sensibilities. (B) No person, except as authorized by law, shall treat a corpse in a way that would outrage reasonable community sensibilities. (C) Whoever violates Division (A) of this section is guilty of abuse of a corpse, a misdemeanor of the second degree. Whoever violates Division (B) of this section is guilty of gross abuse of a corpse, a felony of the fourth degree.”

SLOW CODES

An alternative form of teaching or allowing trainees to learn procedural skills is the continuance of resuscitative efforts with the purpose of allowing the practice of procedures (e.g., arterial line insertion, central venous line insertion, or pericardiocentesis), not because the resuscitation leader thinks it will lead to a successful resuscitation. This has been termed running a “slow code” by some. The American Nurses Association has issued a statement on so-called slow codes or submaximal resuscitation efforts.⁷ They note that slow codes are not ethical and that partial codes often are not appropriate because they offer even less potential for survival than full codes.⁷ With only a few exceptions, partial attempts to reverse a cardiac or pulmonary arrest are medically unsound because these interventions are often highly traumatic and consistently inefficacious.⁸ A slow code often violates the principle of nonmaleficence.

Some might question why this practice is not morally defensible when compared to practicing procedures on the recently deceased. Consider the potential harms, including cardiopulmonary resuscitation-induced consciousness and suffering, return of spontaneous circulation with poor neurologic outcome, and familial and medical professional distress. It quickly becomes clear why performing a slow code is ethically problematic.⁹

ADDITIONAL CONSIDERATIONS

Consider the relative invasiveness and lasting consequences on the body of various procedures when thinking about procedural practice in the deceased. Are some procedures that do not leave a mark on the outside of the body (e.g., endotracheal intubation attempt) or leave the body “intact” more acceptable to perform? Are more invasive procedures (e.g., surgical airways or a thoracotomy) that leave an external mark less acceptable? One study has suggested that family members are more comfortable with less invasive procedures than they are with more invasive procedures.¹⁰

Consider available alternatives for training. Clinicians practicing in an austere environment in developing countries have few alternatives for learning, so training on the recently deceased might be considered more permissible than if one practices in an environment with adequate hands-on opportunities with appropriate oversight and backup in living patients who can provide consent for a procedure, with ready access to preserved cadavers who gave antecedent consent to being used for learning, or with simulation facilities. Many manikins and animal models have been developed to address these issues but lack realism.

The legislature of individual states and the US Congress could develop a preauthorization form similar to organ donation. This form would have numerous advantages. The use of slow codes would be eliminated to teach procedures. Health care personnel would feel more comfortable. Hospitals would not have to make policies, and the administrators would not need to be involved. The need for family consent is avoided if the patient’s wishes are known.

The form would avoid using certain groups of patients more often than others.

NATIONAL GUIDELINES FROM THE AMERICAN MEDICAL ASSOCIATION

A series of articles and editorials in the lay press and the medical literature brought attention to the issue of performing procedures on the recently deceased. The Council on Ethical and Judicial Affairs of the American Medical Association (AMA) published a report on the topic in 2002.¹¹ A panel of experts was convened and published a document that focused on the question of the necessity of consent and offered the below recommendations regarding practice of procedures on the newly deceased.

Work to develop institutional policies that address the practice of performing procedures on the newly deceased for purposes of training. Include in any policies that the interests of all the parties involved are respected under established and clear ethical guidelines. Consider the rights of patients and their families, benefits to trainees and society, the potential harm to the ethical sensitivities of trainees, the risks to staff, the risks to the institution, and the risks to the profession associated with performing procedures on the newly deceased without consent. The lack of consent can damage the reputation of doctors and hospitals.

Address the following before trainees perform procedures on the newly deceased. The teaching of lifesaving skills should be the culmination of a structured training sequence, rather than relying on random opportunities. Training should be performed under close supervision. The environment and manner of performing procedures on the recently deceased should account for the wishes and values of all involved parties. Inquire whether the deceased individual had expressed preferences regarding handling their body or procedures performed after death. Request permission from the family in the absence of previously expressed preferences before performing procedures. Do not perform procedures for training purposes on the newly deceased patient when reasonable efforts to discover previously expressed preferences or someone with authority to grant permission for the procedure have failed.⁹

GUIDELINES FROM EMERGENCY MEDICINE PROFESSIONAL ORGANIZATIONS

The American College of Emergency Physicians (ACEP) Ethics Committee developed an information paper on the issues surrounding the practice of performing procedures on the newly dead but stopped short of developing an explicit statement on whether consent is required.¹² They recommended further research on the ethical ramifications, feasibility, public opinion, and consequences of asking for familial consent. Work has continued in these areas, although perhaps not at the pace requested.

An article published in 2004 offered a position from the Society for Academic Emergency Medicine.¹³ It offered arguments both for and against this practice. It concluded by encouraging all Emergency Medicine training programs to develop a policy and make that policy available to the educators, institution, public, and trainees. It also recommended that families be asked for consent prior to practicing any procedures on the deceased.

SUMMARY

Procedural skills and proficiency are an incredibly important part of training in Emergency Medicine and many other medical specialties. Teaching these skills on living patients is the gold standard but has numerous potential downsides (e.g., the potential for unintended harm to patients as skills are attained). We are making rapid

TABLE 4-1 Some Recommendations for Using the Newly Deceased for Procedures**Conditions to be met:**

- Consent is obtained before the procedure from a legal representative of the patient
- Documentation in the medical record of all other persons present
- Documentation in the medical record of any complications from the procedures
- Documentation in the medical record of consent and from whom
- Documentation in the medical record of the person performing the procedure
- Documentation in the medical record of a procedure note for any procedure performed
- Documentation in the medical record of the procedures performed
- Procedure performance is appropriate for the trainee
- Procedure performance is appropriate for the training program
- Procedure performance is supervised by faculty presence
- The cost will not be billed to the patient, the family, or the insurance company

Do not perform procedures if:

- Advance directives are against the procedures being practiced
- Consent is not obtainable due to lack of any legal representative
- Consent is not obtainable due to refusal of consent
- It is a medical examiner's case
- Member(s) of the health care team does not believe the procedure is appropriate
- The patient is a child unless the parents' consent
- Procedures are against cultural or religious beliefs
- Procedures interfere with an autopsy
- Procedures interfere with forensic evidence collection
- Procedures interfere with family visitation
- There is suspicion of patient abuse
- There is suspicion of patient neglect

progress as a profession in the use of simulation in training but have a long way to go before it can be used to its full potential. The practice of allowing trainees to perform invasive and noninvasive procedures on the recently deceased offers one way of gaining experience and technical skill without the possibility of patient harm.⁹ The final recommendations are listed in **Table 4-1**.

Any personal or institutional approach to this practice must account for the ethical and pragmatic considerations. Balance the needs and interests of society and future patients with the legitimate interests of patients and their families. For the time being, it is likely that this practice of performing procedures on the newly deceased will continue. It should be done with care and thought. The consent of patients and their families will occur in ideal circumstances. Academic institutions and hospitals should talk about these issues before they arise and develop transparent policies that reflect a commitment to patient care above all else.

In the future, medical education and simulation will continue to progress. The use of simulation training mannequins and virtual reality technologies will become more prevalent, and the need for discussing this issue may be eliminated.

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5**Aseptic Technique**

John S. Rose

INTRODUCTION

The proper use and understanding of aseptic technique are critical for the care of patients in the Emergency Department (ED). Aseptic technique dovetails with prescribed universal precautions and is central to the practice of Emergency Medicine. Knowledge of proper aseptic technique ensures that procedures performed in the ED provide maximal protection for the patient and the Emergency Physician while keeping the risk of contamination as low as possible.¹⁻¹⁹

Wound infection and sepsis are the two major complications resulting from poor and improper aseptic technique. Other complications that may contribute to the patient's morbidity and mortality include increased length and cost of hospital stay, patient discomfort, scarring, and death. **Aseptic technique is warranted except in the direst circumstances.**

Numerous terms are used to describe the establishment and maintenance of a "sterile" environment. These include aseptic, disinfection, and sterile technique, to name a few. Many people often incorrectly interchange these terms. The proper definitions of the terms used to describe aseptic technique or associated with it can be found in **Table 5-1**.

ANATOMY AND PATHOPHYSIOLOGY

The skin and hair are colonized with various organisms. The stratum corneum layer of the epidermis is colonized with a polymicrobial flora. This includes molds, *Staphylococcus aureus*, *Staphylococcus epidermidis*, various *Streptococcus* species, viruses, and yeasts. Many of these organisms are nonpathogenic, even when placed in environments considered appropriate for infection. ***S. aureus* is the most common cause of wound infections.** It can result in an infection when introduced into deeper skin layers. Some species (e.g., *S. epidermidis*) are pathologic only when inoculated into deeper layers of the skin and soft tissue. A significant inoculation is required for most infections to create a critical level for microbial growth. **Aseptic technique decreases bacterial exposure and reduces the level of potentially pathologic organisms.**

TABLE 5-1 Definitions of Terms Used to Describe Aseptic Technique or Associated Processes

Term	Definition
Aseptic	Freedom from infection. Prevention of contact with microorganisms. Involves the use of sterile technique and skin disinfection.
Clean technique	The practice of using nonsterile equipment to perform procedures. This is considered as part of the universal body fluid precautions.
Disinfection	The cleaning of an area to make it free of pathogenic organisms and microbes.
Sterile field	The zone in which strict sterile technique is maintained. Generally consists of an area 3 to 10 times larger than the area of the primary procedure.
Sterile technique	The practice of utilizing sterile equipment and procedures to maintain an aseptic environment.
Super aseptic	Ultra-high state of an aseptic environment. Usually, this is achievable only in the operating room.

INDICATIONS

The role of aseptic technique in the ED is primarily for invasive procedures. Invasive procedures require varying degrees of aseptic technique. Placement of a small peripheral intravenous catheter may require no more than a brief wiping of the skin. A diagnostic peritoneal lavage requires Operating Room-level disinfection and strict sterile technique.

Routine and adequate provider disinfection involves careful hand washing, the use of clean and disinfected personal diagnostic equipment (e.g., stethoscopes), and wearing appropriately cleaned coats and clothing. This is critical in preventing iatrogenic infections in the ED. Aseptic technique in the ED can be referred to as clinical aseptic technique, since it is virtually impossible to achieve an Operating Room level of asepsis. **Clinical aseptic technique involves the combining of adequate disinfection with sterile techniques and protocols at the bedside.**

CONTRAINDICATIONS

There are very few contraindications to the maintenance of adequate clinical aseptic technique. One exception would be that extreme clinical circumstance in which time simply does not allow proper aseptic technique (e.g., an emergent thoracotomy). The Emergency Physician can still use sterile gloves and a quick application of an aseptic solution.

Always inquire about allergies and sensitivities to latex and anti-septic solutions. This information will affect the equipment that is chosen to properly prepare the patient.⁸ Hospitals have a latex-free cart that contains equipment for use with latex-allergic patients. **Do not use povidone iodine solution in patients allergic to iodine.** Alternative agents include chlorhexidine and hexachlorophene preparations.

There are some relative contraindications to using some disinfectants. Do not use alcohol-based disinfectants near the eyes, inner ear, mucous membranes, or open wounds. Chlorhexidine can damage the corneal epithelium. Use only ophthalmic-approved iodine-based disinfectants. Chlorhexidine can cause deafness if it reaches the inner ear. Use aqueous-based disinfectants for the ears. Use chlorhexidine with caution around the mucous membranes. Check manufacturers' recommendations or use an aqueous iodine-based disinfectant.

EQUIPMENT

- Povidone iodine solution
- Chlorhexidine gluconate (i.e., chlorhexidine) or hexachlorophene-based solutions
- 70% isopropyl alcohol
- Sterile 4 × 4 gauze squares or applicator sticks
- Sterile gloves
- Face mask and eye protection
- Sterile drapes or towels
- Adequate lighting
- Sterile gowns
- Surgical hat
- Bedside procedure table

PATIENT PREPARATION

Inform the patient of what the procedure entails before performing any procedure in the ED. This should include an explanation of sterile technique and a request that the patient not touch the drapes or sterile equipment. Obtain any required informed consent (Chapter 1) before the patient is draped. The only exception to this is if an emergent and lifesaving procedure must be immediately performed.

Place the patient in the most comfortable position possible. Patient discomfort frequently results in movement and the potential loss of the sterile field. Use sedation and/or analgesia (Chapters 153 to 159) as necessary to facilitate proper patient positioning. The Emergency Physician must also be comfortably positioned if possible and have adequate lighting.

TECHNIQUES

Aseptic technique can be divided into skin disinfection and sterile technique. Skin disinfection removes any microorganisms found on the skin and decreases the potential contamination during the procedure. Sterile technique is performed for the same reason. There are different levels of aseptic technique, ranging from full aseptic technique (i.e., cap, mask, sterile drapes, sterile gloves, and sterile gown) to simple sterile gloves. The physician must use their judgment to determine which level is most appropriate to the task at hand.⁸

SKIN DISINFECTION

Disinfection involves the application and scrubbing of a disinfectant preparation onto the skin. Simple procedures (e.g., injections or venipunctures) may require little disinfection. Wipe the skin with gauze that has been impregnated with 70% isopropyl alcohol for simple procedures. The alcohol has an antibacterial effect. **The mere force of wiping the skin reduces bacterial counts.** No disinfection is used for simple venipunctures in some countries. More comprehensive skin preparation involves the use of a disinfectant agent (e.g., chlorhexidine solution or povidone iodine).

Chlorhexidine, povidone iodine, and 2% iodine tincture are the most commonly used skin antiseptic solutions. Povidone iodine solution is highly germicidal for gram-positive and gram-negative bacteria, viruses, fungi, protozoa, and yeasts.⁷ It rapidly reduces bacterial counts on the skin surface and can last up to 3 hours.^{7,11} Allow the iodine solution to dry and then wipe it from the skin with 70% alcohol prior to beginning the procedure. **The iodine solutions work by oxidation and cross-linking of sulfhydryl groups, killing bacteria as the solution dries.** Isopropyl alcohol can be applied

to the skin and scrubbed vigorously for 2 minutes to achieve disinfection, although this may cause skin irritation. Chlorhexidine or hexachlorophene preparations may be routinely used or used as substitutes in iodine-allergic or sensitive patients. These agents provide good bactericidal activity against gram-positive bacteria but somewhat less activity against gram-negative organisms.⁸

Chlorhexidine-based solutions are being used more commonly and are replacing the iodine-based solutions. Chlorhexidine provides much longer antimicrobial activity (e.g., up to 48 hours) and is gentler on the skin than iodine.¹¹⁻¹⁵ **Chlorhexidine destroys cell membranes of gram-positive and gram-negative bacteria while precipitating the intracellular contents.** Some preparations contain 70% isopropyl alcohol, further enhancing the antimicrobial activity.¹²⁻¹⁴ The use of chlorhexidine solutions is superior to iodine solutions.^{14,15,17,19}

Use a skin disinfectant for procedures other than simple venipuncture. Place the disinfectant solution onto a sterile sponge or sterile gauze if it is not supplied inside a single-use applicator. Historically, the application of disinfectant to the skin has been in a circular motion, beginning with the central area of the procedure and working out toward the periphery of the sterile field (**Figure 5-1**). There is no evidence to support this application method. It has been suggested that scrubbing in a back-and-forth motion may be preferable because it creates friction to dislodge microbes.^{9,10} The back-and-forth motion drives the disinfectant solution into skin crevices and deeper layers, thus killing more bacteria and hopefully preventing infections.

Regardless of the disinfectant solution used, repeat the application process three or four times using a new sponge, gauze square, or applicator each time.⁸ The technique of applying the disinfectant several times ensures that the central area where the procedure is to be performed is the most sterile area of the field. **The area of disinfection must be much larger than the primary area of the procedure, as the number of organisms increases toward the periphery of the prepped area.**

STERILE TECHNIQUE

General sterile technique is described followed by specific details for each step of the procedure. Strict sterile technique is virtually impossible in the ED. **Make every effort to maintain a sterile field to minimize infection.** Assemble all equipment necessary and place it on a small procedure stand. **Do not use the patient or their bed to set up supplies or equipment.** Patient movement and their irregular body surfaces can result in items becoming contaminated, breaking, or falling or iatrogenic needle sticks. Avoid having different components scattered around the procedure area. Open all sterile items, using proper sterile protocol, to have them available once the Emergency Physician has donned sterile gloves. Use anesthetic solution containers with removable caps. This allows the Emergency Physician to draw up anesthetic without having an assistant and minimizes the risk of occupational needle exposure. **Perform a thorough hand washing before the procedure.**

Use eye, face, and hair protection during the procedure. Apply these before donning sterile gloves and sterile gowns. Apply sterile gloves. Place sterile drapes or towels on the patient to form a field wide enough to allow for a comfortable work space. Drape the area near the patient closest to the bedside procedure table. This will minimize inadvertent contamination in moving from the table to the patient. Make a small flat sterile area near the procedure site to allow for placement of important items that must be immediately available. **Open all caps, position stopcocks, and prepare all devices prior to starting the procedure.** The likelihood of contamination increases if devices are not adequately prepared and require manipulation during the critical portion of a procedure. **Adhere to universal precautions guidelines.**

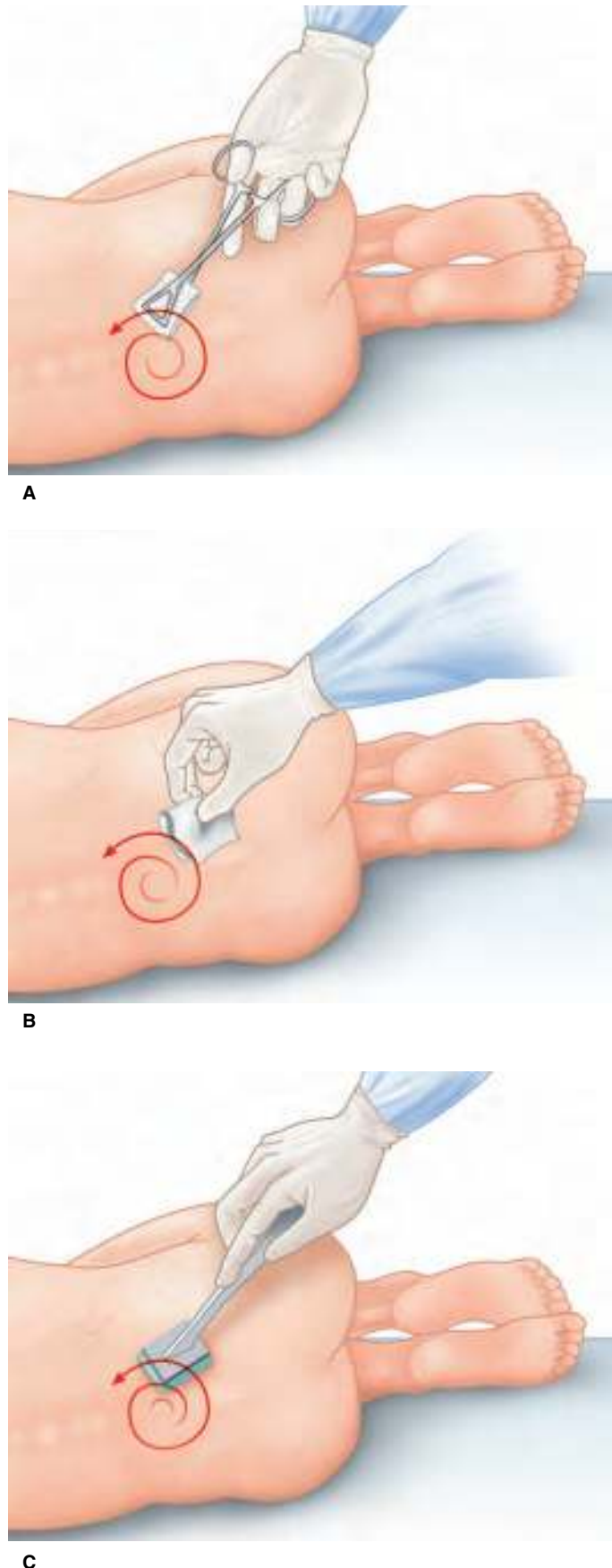


FIGURE 5-1. Preparation of the skin. Disinfectant solution is applied in a concentric circular pattern starting from the procedure site and working outward. Apply the disinfectant solution with sterile gauze held in a clamp (**A**), with sterile gauze held in a sterile gloved hand (**B**), or with a sponge on a stick (**C**).

OPENING A STERILE PACK

Always make sure that the outer wrapping is intact, the sterility expiration date has not passed, and the sterility indicator tape is the appropriate color before opening a sterile pack.² Wash your hands and then remove the outer wrap if applicable. Remove the sterility

indicator tape (**Figure 5-2A**). Place the sterile pack on a dry and level surface with the outermost flap facing away from you (**Figure 5-2B**). Grasp the corners of the outermost flap (**Figure 5-2B**). Hold your arms to the sides of the pack to avoid reaching over the sterile area. Lift the flap up and away (**Figure 5-2B**). Open the side flaps by grasping the folded corner with a thumb and index finger and pulling the



A



B



C



D



E

FIGURE 5-2. Opening a sterile pack. **A.** Remove the sterility indicator tape. **B.** Grasp the edges of the outermost flap and open it away from you. **C.** Open the side flaps. **D.** Open the remaining flap toward you. **E.** The open pack.

flap to the side (Figure 5-2C). Open the bottom flap (Figure 5-2D). Grasp and open the bottom flap while stepping back to prevent contaminating the wrap on your clothing. **Make sure that your arms and clothes do not contaminate the contents of the pack when opening the flaps.** Repeat the procedure if the pack has an inner wrap.

PLACING STERILE SUPPLIES ON A STERILE FIELD

Sterile supplies are generally packaged in a hard peel-back pack (i.e., hard pack) or a soft peel-back pack (i.e., soft pack). The general principle of opening these is the same, although there are subtle differences. Hold the hard peel-back container in the nondominant hand with the flap facing the sterile field (Figure 5-3A). Pull the flap toward you with the dominant hand so that the open end of the pack will be facing the field (Figure 5-3A). Hold the container 15 to 20 cm above the sterile field. This ensures that if the contents fall, it will be onto the sterile field where they are wanted. Drop the contents of the sterile pack onto the sterile field taking care not to contaminate the field with the container (Figure 5-3B).

Gloves and syringes are wrapped in soft packs. Grasp both sides of the unsealed edge of the soft pack and pull them apart slightly



A



B

FIGURE 5-3. Opening a hard peel-back container. **A.** Grasp the container with the flap facing the sterile field. Remove the flap. **B.** Drop the contents of the hard container onto the sterile field.



A



B

FIGURE 5-4. Opening a soft peel-back container. **A.** Grasp both sides of the unsealed edge and pull them apart. **B.** Face the pack toward the sterile field. Continue to open the edges until the contents fall onto the sterile field.

(Figure 5-4A). Hold the open end facing the sterile field (i.e., away from you). Continue to open the soft pack. Fold the sides of the sterile packing back and over your hands to keep the contents sterile (Figure 5-4B). Gently drop the contents of the soft pack onto the sterile field.

APPLICATION OF A MASK

Surgical masks serve a dual role in the performance of aseptic technique. Masks have been shown to decrease contamination of the sterile field that may result from aerosolized droplets from the mouth and nose. Masks protect the caregiver's mucous membranes from exposure and possible splashing during the procedure. Wear a mask with an eye shield during high-risk procedures.

Apply the mask before donning gloves and other sterile equipment. Secure the mask by placing the elastic straps around the ears, placing the elastic straps around the head, or tying the mask securely to the face with ties around the head and neck depending on the type and style of the mask. Pinch the metal nose clip securely to the bridge of the nose for a tighter fit and to minimize the gap between the mask and the nose.