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*Review*

# Clinical and Ethical Considerations in Assessing Decision-Making Capacity Among Uncontrolled Type 2 Diabetic Patients Refusing Insulin Therapy

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**Abstract**

Uncontrolled type 2 diabetes remains a major global health concern, with insulin therapy often required when oral medications fail to maintain glycemic targets. However, many patients resist insulin initiation despite clinical indications, presenting challenges that intersect medical judgment, ethics, and patient rights. Refusal of insulin is frequently influenced by complex factors, including fear of injections, cultural beliefs, stigma, and misconceptions about disease progression. Emotional states such as depression and anxiety, common in patients with poorly managed diabetes, further shape refusal behavior and may impair the ability to make fully informed choices. At the same time, chronic hyperglycemia and diabetes-related complications can affect cognitive functions such as memory, attention, and executive capacity, raising concerns about decision-making competence. Clinicians are often placed in ethically difficult positions, balancing respect for patient autonomy with professional obligations to protect health and prevent avoidable harm. Assessing decision-making capacity in this context is not always straightforward, especially in the absence of clear guidelines or institutional support. Ethical conflicts arise when a patient's consistent refusal of therapy appears influenced by cognitive decline or psychological distress. Informal assessments of capacity, inconsistent documentation, and time-limited care environments may further complicate ethical decision-making. Family dynamics, cultural context, and clinician biases also play a role in how decisions are interpreted and acted upon. Efforts to navigate these dilemmas require a nuanced approach that integrates cognitive assessment, emotional evaluation, and ethical reflection. Structured capacity evaluations, interdisciplinary collaboration, and culturally sensitive communication can support ethical integrity while ensuring patients receive appropriate care. Understanding the motivations and limitations behind insulin refusal is essential for developing ethically sound and clinically effective responses in the management of complex diabetes cases.

**Keywords:** *decision-making capacity, insulin refusal, type 2 diabetes, medical ethics, cognitive impairment*

## Introduction

Patients with type 2 diabetes mellitus (T2DM) often face complex treatment decisions, particularly when disease progression requires the initiation of insulin therapy. Despite clear clinical indications, a subset of patients with uncontrolled T2DM refuse insulin, raising critical concerns around decision-making capacity (DMC). The assessment of DMC in this context becomes especially nuanced due to the chronic nature of diabetes, its associated cognitive and psychological burden, and the ethical tensions between respecting patient autonomy and ensuring medical beneficence.

Decision-making capacity is a foundational concept in clinical ethics and law, involving an individual's ability to understand relevant information, appreciate their situation and consequences, reason through treatment options, and communicate a choice. These elements must be intact for a refusal of treatment to be considered informed and valid. In patients with poorly controlled T2DM, there is growing recognition of the impact of hyperglycemia and disease-related complications on cognitive functioning, including executive dysfunction and reduced mental flexibility (1). Research suggests that chronic hyperglycemia may accelerate cognitive decline through vascular and neurodegenerative pathways, potentially impairing the domains necessary for sound medical decision-making (2).

Beyond neurocognitive effects, emotional and psychological factors also play a pivotal role in shaping patient decisions. Insulin refusal is often driven by fear of injections, perceived stigma, misconceptions about insulin signifying disease severity, or anxiety over lifestyle changes (3). Depression and diabetes-related distress, both common in patients with uncontrolled T2DM, further complicate the clinical picture. These emotional states can distort risk perception and reduce motivation for self-care, raising questions about whether refusal is a reflection of informed preference or symptomatic distress (4). Understanding the diverse motivations behind insulin refusal is essential for balancing respect for patient values with the imperative to prevent harm.

## Review

Assessing DMC in patients with uncontrolled T2DM who refuse insulin therapy presents significant clinical and ethical challenges. These patients often face a combination of physiological, psychological, and social factors that can affect their ability to make informed decisions. Chronic hyperglycemia has been associated with subtle cognitive impairments, particularly affecting memory, attention, and executive functioning, all of which are crucial for DMC (5). When cognitive deficits go unrecognized, clinicians may mistakenly interpret refusal as autonomous, potentially overlooking compromised capacity. Moreover, cultural beliefs and misconceptions about insulin can strongly influence decision-making. Some patients view insulin as a marker of disease failure or impending complications, leading to resistance that may not stem from rational appraisal of medical information (6). In such cases, capacity assessments must go beyond surface-level evaluations and explore whether the patient truly understands the implications of their refusal. This requires not only clinical judgment but also effective communication, cultural competence, and sometimes involvement of mental health professionals. Balancing respect for autonomy with the ethical imperative to protect patients from harm remains a delicate task, especially when refusal may result in avoidable complications such as diabetic ketoacidosis or progressive organ damage.

### *Cognitive and Emotional Factors in Capacity Assessment*

Evaluating decision-making capacity in patients with uncontrolled T2DM who refuse insulin involves more than a checklist of cognitive abilities. The interplay of neurocognitive performance and emotional state influences how patients perceive, interpret, and respond to medical recommendations. When glycemic control deteriorates, subtle or overt cognitive impairments may emerge, affecting executive functions, attention, and memory. These impairments can reduce the patient's ability to


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process treatment information effectively and appreciate the long-term consequences of their choices. Studies have identified that poor metabolic control correlates with reduced performance on tasks requiring planning, inhibition, and mental flexibility, capacities central to weighing medical risks and benefits (7). Importantly, such deficits often remain unrecognized in routine clinical encounters unless clinicians are trained to detect early cognitive decline.

Emotions, beliefs, and affective states shape how patients engage with information, especially when treatments are perceived as invasive or stigmatizing. Refusal of insulin is frequently rooted in psychological resistance rather than misunderstanding of the medical facts. Individuals may associate insulin with personal failure, loss of control, or worsening prognosis, creating a framework in which refusal feels protective rather than risky. Fear, in particular, plays a dominant role. A study on patient attitudes found that many individuals harbor long-standing anxieties about needles, insulin side effects, or complications from improper use, often derived from witnessing negative experiences in others (8). These emotions can distort judgment, even in the presence of intact cognitive abilities.

Moreover, affective conditions such as depression and anxiety have a bidirectional relationship with diabetes and are prevalent in those with poor glycemic control. Depressive symptoms can impair motivation, decrease energy, and reduce the ability to engage in reflective thought, leading to passivity or resistance in medical decision-making. Cognitive distortions associated with depression may interfere with the ability to fully appreciate the benefits of insulin therapy. In these cases, refusal may stem from a limited sense of agency or self-worth rather than a conscious rejection of medical advice. Research indicates that emotional distress significantly correlates with reduced adherence to therapy, and this disengagement is often interpreted as non-compliance rather than a red flag for possible impaired capacity (9).

The clinical environment itself can amplify emotional responses and interfere with cognitive performance. Discussions about insulin often occur in high-pressure settings, such as emergency visits or consultations following poor lab results. Patients may feel overwhelmed or judged, compromising their ability to think clearly. Cultural and social context also matters. In certain communities, insulin therapy may be viewed as a moral failure or as incompatible with personal identity. When beliefs are deeply rooted, cognitive assessments must consider whether these views interfere with rational decision-making or simply reflect strongly held values (10).

### *Ethical Conflicts in Insulin Refusal*

Insulin refusal by patients with uncontrolled T2DM often places clinicians in ethically charged territory. The right to make autonomous decisions includes the right to refuse medical treatment, even if that choice appears harmful or irrational. Yet when the refusal occurs in the presence of potentially impaired decision-making capacity or under the influence of untreated psychological conditions, the ethical clarity surrounding autonomy begins to blur. Clinicians are then required to navigate between respecting patient rights and preventing foreseeable harm, often without sufficient institutional support or ethical guidance tailored to chronic care situations.

Tensions intensify when medical providers question the authenticity or soundness of the refusal. Autonomy, as a bioethical principle, is grounded in the assumption of capacity and voluntariness. If these foundations are uncertain, then the moral weight given to the decision becomes unstable. Ethics literature has long debated the thresholds at which paternalistic intervention is justified, especially in cases where the patient is not overtly psychotic or delirious, but still exhibits persistent refusal of a therapy proven to reduce morbidity and mortality (11). The difficulty lies in determining whether the refusal reflects a well-considered, informed choice or a symptom of cognitive or emotional dysfunction that undermines decisional authority.


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It is also problematic that decision-making capacity is often assessed inconsistently across settings. Studies show that clinicians frequently rely on informal judgments rather than structured assessments, leading to variability in when and how ethical concerns are addressed (12). This inconsistency may result in patients with similar presentations receiving vastly different degrees of respect or scrutiny, introducing ethical concerns related to justice and equity in care. Institutional norms, clinician biases, and cultural misunderstandings may further compound these disparities. When the threshold for intervention is unclear, decisions can become more reflective of provider discomfort than objective ethical reasoning.

The principle of beneficence compels health professionals to act in the best interests of their patients, particularly when long-term harm is foreseeable. For those refusing insulin while in a state of progressive decompensation, the incidence of retinopathy, nephropathy, neuropathy, and acute complications increase. Yet intervening against a patient's will, even with protective intent, carries ethical risks of its own. Compulsion or coercion, even subtle forms such as repeated pressuring or framing of options, may damage trust and therapeutic alliance. Ethics committees and legal standards often provide vague or conflicting guidance in chronic care settings, where decisions unfold over weeks or months rather than hours (13).

Complicating this ethical landscape is the role of family members or caregivers who may advocate strongly for insulin initiation, invoking the patient's past values or prior wishes. In some cases, their input is invaluable, providing insight into the patient's historical approach to illness. In others, it introduces pressure or bias that may not align with the patient's current autonomy. Clinicians are left to balance competing voices, including institutional policies that prioritize risk reduction, often without dedicated time or training in ethical mediation. Even when ethical frameworks are consulted, such as the four principles approach or relational autonomy models, application remains subjective, filtered through the provider's own experience and moral orientation (14).

### *Clinical Approaches to Supporting Informed Decisions*

When patients decline insulin therapy despite uncontrolled T2DM, clinicians face ethical dilemmas that extend beyond the boundaries of medical management. Refusal often emerges not as an isolated act but within a web of meaning shaped by personal experience, cultural values, and lived relationships with illness and care. Medical frameworks tend to prioritize physiological outcomes, but ethical reasoning must grapple with the fact that patients do not always measure benefit and harm by glycemic metrics or disease staging. They may prioritize independence, emotional equilibrium, or perceived normalcy, and when these values clash with clinical recommendations, moral complexity follows.

Respecting a refusal grounded in these priorities can feel at odds with the duty to prevent avoidable suffering. Physicians may interpret the choice as irrational or misinformed, particularly when glycemic reading is dangerously high or complications are evident. However, irrationality is not synonymous with incapacity. Ethical practice requires careful distinction. People are permitted to make what others might call bad decisions, provided those decisions are made with understanding, appreciation, and intent. Still, discomfort arises when that understanding appears partial or distorted by illness, leading clinicians to question whether the refusal truly reflects the patient's authentic voice or a state of compromised cognition or affect (15).

Institutional settings further complicate the picture. In primary care, where long-term relationships offer context, capacity evaluations may benefit from familiarity and longitudinal insight. In hospital environments, particularly during admissions for acute decompensation, time pressures and fragmented information heighten the risk of ethical misjudgment. Clinicians may lean toward immediate safety, interpreting noncompliance as evidence of incapacity or neglecting the patient's broader psychosocial circumstances. Some


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institutions lack clear pathways for interdisciplinary consultation in these cases, and so ethical reasoning becomes reactive and uneven. Rather than structured mediation, the result is often a binary framing of patients as either capable and autonomous or incapable and in need of protection (16).

The role of implied risk plays heavily into how clinicians frame ethical choices. While legal doctrine allows for refusal, the perceived immediacy of threat shifts the ethical weight. A patient refusing insulin while asymptomatic may be viewed differently from one refusing during a hyperglycemic crisis, even if cognitive and emotional states are unchanged. The ethical tension arises from shifting proximity to harm and the clinician's accountability within that frame. Without robust ethical training or institutional support, many clinicians default to intuitive judgments, which may not align with best practices or established ethical frameworks (17).

Moral distress is another component worth noting. Repeated exposure to perceived ethical compromise can lead to frustration, burnout, and disengagement. Some providers report feeling unsupported in navigating the boundary between autonomy and beneficence, particularly when the refusal is persistent and carries foreseeable harm. Ethical conflicts become not only a patient-centered issue but a systemic strain that affects how care is delivered and how professionals maintain their moral integrity. Recognition of this emotional and moral toll is essential in developing institutional structures that support reflective and ethically sound decision-making processes (18).

## Conclusion

Insulin refusal in uncontrolled T2DM raises layered clinical and ethical challenges that extend beyond individual autonomy. Decision-making capacity must be assessed with sensitivity to cognitive and emotional influences. Ethical practice requires balancing respect for patient values with the duty to prevent harm. Strengthening interdisciplinary support can promote more consistent and compassionate care.

## Disclosure

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There is no conflict of interest.

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### *Data availability*

All data is available within the manuscript.

### *Author contribution*

All authors contributed to conceptualizing, data drafting, collection and final writing of the manuscript.

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