2026 EASD evidence-based clinical practice guideline for assessing and managing diabetes distress among adults with type 1 diabetes and type 2 diabetes

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Publication approval

This clinical guideline was approved by the Guideline Oversight Committee of the European Association for the Study of Diabetes (EASD). The EASD is satisfied that the guideline recommendations have been developed systematically based on the best available scientific evidence.

Disclaimer

This clinical guideline was developed to provide evidence-based recommendations to improve the quality of care and outcomes of adults with type 1 diabetes and type 2 diabetes. The Good Practice Statements and GRADE recommendations are based on the best evidence available at the time the guideline was prepared, as evaluated by methodologists, and experts in psychology, medicine and nursing, and experts with lived experience. While the aim of this guideline is to enable healthcare professionals and people living with diabetes to make evidence-informed decisions about appropriate and effective care, the recommendations are generalised. Following the recommendations in the guideline does not guarantee resolution of diabetes distress. Healthcare professionals are advised to make clinical decisions, in partnership with the person living with diabetes, on a case-by-case basis. Effective application of the recommendations will require consideration of the specific context, needs, priorities and preferences of the person living with diabetes; as well as the availability of services and resources in their healthcare setting and country.

While the authors and the European Association for the Study of Diabetes (EASD) have made every reasonable effort to compile an accurate evidence-based guideline, they cannot guarantee the accuracy or completeness in every respect. Neither the EASD nor the authors make any warranty, express or implied, regarding the guideline, and shall not be liable for any direct or indirect consequences of its implementation.

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Access

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Foreword by the President of the EASD

As a practising clinician in diabetes for over 35 years, I have seen the attitude towards diabetes of healthcare professionals, the general public and people living with diabetes themselves change substantially over time. Diabetes has evolved from a scary, obscure disease with lots of taboos, to a 'can do' situation, a so-called 'condition' rather than a disease even. And, of course, we as healthcare professionals have contributed to that, with our enthusiasm on being able to provide people with diabetes with fantastic, life-saving medications – like insulin, SGLT2 inhibitors and GLP-1 receptor agonists – and amazing technologies – like insulin pumps, capillary blood glucose monitors, sensors and, more recently, the automated insulin delivery systems. We believe these tools have dramatically changed the lives of people with diabetes – and, of course, they have!

However, in our enthusiasm, we have forgotten that the distress around living with diabetes has not decreased. For many, I would even say, it has increased.

My older patients remember the good old times, where they just injected their insulin twice a day, never measured glucose and lived happy blissfully ignorant lives, only meeting me three times a year.... with, sadly, dramatic health consequences later on. But, the acute distress of diabetes was actually less for many. Now, responsibility lies much more in the hands of the person (and the family) living with diabetes and awareness of the condition is there, all the time. I would even dare to say that this constant awareness and feeling of 'it's in my hands whether I do a good job with my diabetes or not' has put more distress in the lives of many than before. Being aware of this and building it into our care of people with diabetes is crucial – it's called clinical care for a reason.

The present guideline is evidence-based and, as guidelines go, it may make practising clinicians, like myself, raise their eyebrows sometimes when a recommendation is bold and not what we do in clinic. We must remember that the guideline represents what the evidence shows and should guide our clinical practice and inform further research. The bottom line of good clinical practice is still listening to the person with diabetes sitting in front of (or better next to) you and offering the personalised support they need to live long, healthy and happy lives with diabetes, until we find a cure!

I am immensely proud of presenting you with this first EASD clinical guideline, which has been the fruit of hard work by many. I thank the members of the EASD for suggesting this topic, the Guideline Oversight Committee for picking this topic for the first guideline and the Guideline Development Panel for a fantastic job!

Professor Chantal Mathieu

President: EASD

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Foreword by the Chair of the EASD Guidelines Oversight Committee

The publication of this first European Association for the Study of Diabetes (EASD) guideline is a landmark moment for our Association and for the diabetes community. What began three years ago as an ambitious vision has now become a reality, thanks to the trust, support, and commitment of many colleagues. I wish to begin by expressing my deepest gratitude to the EASD Board, under the leadership of Professor Chantal Mathieu, for the confidence they placed on me when I was appointed to chair the Guidelines Oversight Committee, for embracing the Committee's proposals, and for providing the human and financial resources that made this project possible. Without their foresight, courage, and trust, this milestone would not have been achieved.

The Guidelines Oversight Committee was entrusted with building a framework for the production of trustworthy, evidence-based guidelines. Guided by formal training in internationally recognised standards, the Guideline Oversight Committee established a robust and pragmatic methodology, strict rules for the declaration and management of conflicts of interest, and transparent procedures for the appointment of content experts to the guideline development panels. Open calls to the EASD membership ensured that the topics chosen reflected the community's priorities, and similar processes enabled identification of outstanding evidence synthesis teams, selected through independent external review. A central principle throughout has been the meaningful involvement of people with lived experience of diabetes, whose perspectives are embedded in every stage of the guideline development process. From these efforts emerged the EASD Standard Operating Procedures for guidelines, a sustainable and transparent model designed to deliver at least one new guideline each year, starting with this inaugural publication.

No framework, however, can succeed without the tireless support of those who sustain it day by day. The dedication of the EASD Office has been instrumental in this journey, providing indispensable organisational and logistical assistance to both GOC and the guideline development panels. I wish to extend my warmest thanks to Petra, Natasha, Mercy, and Manuela for their professionalism, efficiency, and kindness, which have been invaluable at every stage.

Above all, this achievement belongs to the first Guideline Development Panel and its Evidence Synthesis Team. Their pioneering work set the standard for all that will follow. Under the skilful leadership of Professor Jane Speight and Professor Richard Holt (co-chairs) and the guidance of two excellent methodologists (Dr Thomas Karagiannis and Dr Francesco Zaccardi), the GDP – comprising content experts (including people living with diabetes, clinicians and researchers) and evidence synthesis specialists – worked with rigour, patience, and commitment to transform a framework into a guideline. Their

dedication and collegiality ensured that what we present today is not only scientifically robust but also clinically relevant and person-centred.

Diabetes distress is not a marginal concern but a central element of living with diabetes. Despite major advances in therapies and technologies, many people continue to experience significant emotional and psychological burden in managing the relentless demands of this condition. Therefore, assessing and managing diabetes distress is as vital as assessing and managing glucose levels – and it is this recognition that makes the present guideline so important for both clinical practice and future research.

This first EASD guideline is both the culmination of a demanding process and the beginning of a new era. It reflects the values of transparency, inclusiveness, and scientific integrity that will guide all future work. For me personally, it has been a profound privilege to be part of this endeavour and to collaborate with such remarkable colleagues. With gratitude and pride, I commend this inaugural guideline to the community it is intended to serve, confident that it will be the first of many to follow.

Professor Apostolos Tsapas

Chair: EASD Guidelines Oversight Committee

Chair: EASD Committee on Clinical Affairs

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Foreword by Lived Experience Experts

What this guideline means to us, as people living with diabetes

Diabetes is a chronic condition and a mental challenge. Day in and day out, we're on constant watch: checking glucose levels, thinking about food, calculating insulin doses or other medications and juggling other invisible diabetes-related tasks that always take up some of our brain space. This constant vigilance creates a real emotional burden.

Diabetes distress shows itself through persistent worries, fatigue, nagging guilt, and feeling burnt out with diabetes demands. Healthcare professionals sometimes mistake these for depression. But it's different – these feelings relate specifically to managing a condition that never gives us a break and which we're handling alone for most of the time. It's completely natural that sometimes it becomes stressful and overwhelming.

We need a shift in how healthcare professionals approach people with diabetes. Mental health isn't separate from physical health – they directly impact each other. Instead of struggling silently, we need space to talk openly about these burdens and receive effective support.

These guidelines are crucial because they help ensure we're seen as whole people, not just clinical cases with a disease to be managed. They establish a standard approach, so our healthcare professionals know what to look for and how to support us, regardless of which clinic we attend. With these guidelines, healthcare appointments should routinely include questions about how we're coping emotionally, not just reviewing our medications or monitoring our latest numbers.

Most healthcare professionals now acknowledge the psychological impact of diabetes, but many feel that addressing these challenges is outside their expertise. These guidelines give them practical, evidence-based recommendations and clear pathways, bridging the gap between recognising our emotional struggles and actually helping us with them.

We both live with diabetes and know first-hand how tough it can be emotionally. That’s why being part of this guideline process from the very beginning has meant so much to us. It’s not something you see every day—real collaboration between people with lived experience and professionals. And it works! When we come together like this, we can create solutions that truly make a difference. Our hope is that these guidelines will be widely adopted and lead to real improvements in the care people with diabetes receive—finally addressing a gap that’s been there for far too long.

Walther Jensen **Michelle Law**

Foreword by the Co-Chairs of the Diabetes Distress Guideline Development Panel

As co-chairs of the EASD's diabetes distress guideline development panel, we are honoured to present this clinical guideline on assessing and managing diabetes distress among adults living with type 1 diabetes and type 2 diabetes.

The timing of this guideline is significant. The launch marks 30 years since the publication of the first tool to assess diabetes distress: the Problem Areas in Diabetes (PAID) scale. Over the past three decades, we have witnessed the development, validation and translation of several diabetes distress assessment tools, a growing body of evidence supporting interventions to reduce diabetes distress, and increasing recognition of the critical role of emotional and psychological well-being in diabetes care, self-care and outcomes.

Today, person-centred care is widely endorsed in clinical guidelines and embraced by clinical teams. This creates both the opportunity and imperative for a guideline that focuses specifically on the emotional burden of living with and managing diabetes. In the modern era, the "24/7" nature of diabetes management has intensified, making the need to acknowledge and address diabetes distress more urgent than ever.

We are proud that the EASD has chosen diabetes distress for its first-ever evidence-based clinical guideline. This decision affirms the importance of emotional health alongside physical health for people with diabetes.

This guideline is the result of a collaborative, multidisciplinary effort involving people living with diabetes, clinical and health psychologists, medical specialists, nurses, methodologists and evidence synthesis specialists, supported by the EASD Office team. Together, we formulated key clinical questions, identified and synthesised the best available evidence, and translated it into practical evidence-based recommendations to standardise clinical care and improve outcomes. From the outset, the guideline development panel has included two people with lived experience of diabetes. Their contributions have been invaluable for grounding our conversations and shaping our interpretation of evidence to ensure that the recommendations are relevant and meet the needs of people living with diabetes and the healthcare professionals who support them.

On behalf of the guideline development panel, we commend this guideline to you. We hope that it will empower healthcare professionals to routinely assess and address the emotional burden of living with diabetes in the healthcare setting, ultimately improving the experiences and outcomes of adults living with type 1 diabetes or type 2 diabetes across Europe and beyond.

Professor Jane Speight CPsychol FBPsS

Co-Chair: EASD Diabetes Distress Guideline Development Panel

Chair: PsychoSocial Aspects of Diabetes (PSAD) Study Group, a reference group to the EASD on matters related to the psychosocial aspects of diabetes

Foundation Director: The Australian Centre for Behavioural Research in Diabetes, a partnership between Diabetes Victoria and Deakin University, Australia

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Abbreviations and acronyms

AGREE II	Appraisal of Guidelines, Research and Evaluation II
CBT	Cognitive behavioural therapy
CGM	Continuous glucose monitoring
DDS	Diabetes Distress Scale
EtD	Evidence to Decision
EST	Evidence Synthesis Team
GDP	Guideline Development Panel
GIN	Guideline International Network
GOC	Guideline Oversight Committee
GRADE	Grading of Recommendations, Assessment, Development, and Evaluation
MCID	Minimum clinically important difference
NAM	National Academy of Medicine
PAID	Problem Areas in Diabetes
PICOT	Participants, Intervention, Comparator, Outcomes, Type of studies
RCT	Randomised controlled trial
RIGHT	Reporting of Items for practice Guidelines in HealThcare
RoB	Risk of Bias

Executive Summary

Objective

Recognising the emotional burden of diabetes as a critical component of care, the aim of this guideline is to standardise the assessment and management of diabetes distress among adults with type 1 diabetes and type 2 diabetes.

Community Engagement

From inception, the Guideline Development Panel (GDP) included a person living with type 1 diabetes and a person living with type 2 diabetes. Their contributions shaped the clinical questions, interpretation of evidence, and formulation of recommendations, fostering a guideline that reflects the real-world needs and priorities of people living with diabetes. Further input was invited via public consultation after the draft guideline was presented.

Methods and Process

The guideline was developed in accordance with the EASD standard operating procedure, the GRADE (Grading of Recommendations Assessment, Development and Evaluation) methodology, and the Reporting of Items for practice Guidelines in HealThcare (RIGHT) statement. The GDP included multidisciplinary experts, methodologists, and lived experience representatives. For the management of diabetes distress, GRADE recommendations were developed based on a commissioned systematic review and meta-analyses of randomised controlled trials (RCTs). Clinical questions were structured using the PICOT (Participants, Intervention, Comparator, Outcome, Type of study) framework. For the assessment of diabetes distress, Good Practice Statements were informed by *de novo* realist reviews.

Clinical Questions

This guideline addresses two domains:

- Assessment: How and when to assess diabetes distress among adults with type 1 diabetes or type 2 diabetes?
- Management: What is the effectiveness of psychological, psychoeducational, educational, peer support, and technology-based interventions for reducing diabetes distress among adults with type 1 diabetes or type 2 diabetes?

Recommendations

Asking about and assessing diabetes distress should be a routine part of effective, person-centred care (see Good Practice Statements A1 to A8 below). For the management of diabetes distress, conditional recommendations support psychological

372 and psychoeducational interventions. Recommendations vary by diabetes type and
373 intervention category (see GRADE recommendations M1.1 to M1.9 and M2.1 to M2.9
374 below).

#	Good Practice Statements for the assessment of diabetes distress among adults with type 1 diabetes or type 2 diabetes
A.1	Healthcare professionals should discuss the emotional side of diabetes at every consultation as an integral component of person-centred diabetes care.
A.2	Healthcare professionals should *ask* about diabetes distress using open-ended questions, framed around the emotional burden or challenges of living with diabetes.
A.3	Healthcare professionals should *assess* diabetes distress using a valid and reliable tool.
A.4	Healthcare professionals should assess and monitor diabetes distress at regular intervals, as part of the annual cycle of care.
A.5	Healthcare professionals should acknowledge and discuss the person's assessment, irrespective of the findings, as part of effective, person-centred care.
A.6	Healthcare professionals should record the findings of the diabetes distress assessment in the clinical notes, and discuss them with relevant members of the healthcare team.
A.7	When diabetes distress is identified, healthcare professionals should make a joint plan with the person living with diabetes about next steps.
A.8	General and diabetes-specialist healthcare professionals should have the competency to offer psychological support to those experiencing diabetes distress and know how to enlist specialist support when it is needed.

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#	GRADE recommendations for the management of diabetes distress among adults with type 1 diabetes	GRADE Certainty of evidence
M1.1	We suggest using psychological interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Low ⨁⨁◯◯
M1.2	We do not suggest using psychoeducational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Very low ⨁◯◯◯
M1.3	We do not suggest using educational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Ungraded

M1.4	We do not suggest using peer support interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Ungraded
M1.5	We do not suggest using psychological interventions instead of psychoeducational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.	Ungraded
M1.6	We do not suggest using psychological interventions instead of educational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.	Very low ⊕◯◯◯
M1.7	We do not suggest psychoeducational interventions instead of educational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.	Low ⊕⊕◯◯
M1.8	We suggest using continuous glucose monitoring (CGM), rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 1 diabetes.	Moderate ⊕⊕⊕◯
M1.9	We do not suggest using automated insulin delivery (AID) systems, rather than no use of AID, to reduce diabetes distress among adults with type 1 diabetes.	Moderate ⊕⊕⊕◯

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#	**GRADE Recommendations for the management of diabetes distress among adults with type 2 diabetes**	**GRADE Certainty of evidence**
M2.1	We suggest using psychological interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯
M2.2	We suggest using psychoeducational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯
M2.3	We suggest using educational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.	Low ⊕⊕◯◯
M2.4	We do not suggest using peer support interventions in addition to usual care, rather than usual care alone to reduce diabetes distress among adults with type 2 diabetes.	Low ⊕⊕◯◯
M2.5	We suggest using either psychological or psychoeducational interventions to reduce diabetes distress among adults with type 2 diabetes.	Ungraded

M2.6	We suggest using either psychological or educational interventions to reduce diabetes distress among adults with type 2 diabetes.	Very low ⨁◯◯◯
M2.7	We suggest using psychoeducational interventions, rather than educational interventions, to reduce diabetes distress among adults with type 2 diabetes.	Very low ⨁◯◯◯
M2.8	We suggest using educational interventions rather than peer support interventions to reduce diabetes distress among adults with type 2 diabetes.	Low ⨁⨁◯◯
M2.9	We do not suggest using continuous glucose monitoring (CGM), rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 2 diabetes.	Very low ⨁◯◯◯

Strengths and Limitations

Strengths include rigorous methodology, stakeholder engagement, and a focus on person-centred care. Limitations include the scarcity of high-quality RCTs for many interventions, especially in type 1 diabetes. Some studies may have been missed if diabetes distress was reported only as a secondary outcome.

What the Guideline Does Not Address

This guideline does not cover diabetes distress among children or adolescents with type 1 diabetes or type 2 diabetes or among adults with gestational diabetes or rarer types of diabetes. Nor does it address common mental health conditions, such as depression or anxiety, which may also be relevant to consider as part of person-centred care. It does not provide detailed implementation protocols for specific interventions.

Funding

The guideline was funded by the EASD, which supported the conduct of the systematic review, the methodologists, travel and subsistence for GDP members to attend two 2-day meetings, and a token honorarium to the two lived experience experts. The rapid realist reviews, underpinning the Good Practice Statements, were jointly funded by the UK National Institute of Health Research and Diabetes UK, as part of the D-Stress study. No industry funding was involved. Additional support was provided by Diabetes Victoria and Deakin University for one of the co-chairs.

Editorial Independence and Disclosures

Conflicts of interest were managed in accordance with EASD Standard Operating Procedure for the development of clinical practice guidelines and the RIGHT statement.

All GDP members disclosed relevant interests, which were reviewed and managed by the EASD Guidelines Oversight Committee.

Implementation

Implementation will require training, system-level support, and integration into routine care. The guideline provides a foundation for improving emotional support in diabetes care and may be adapted to local contexts using the GRADE-ADOLOPMENT approach. Dissemination will include peer-reviewed publication, open access report via the EASD website, and plain language, accessible formats.

Keywords

Diabetes distress, type 1 diabetes, type 2 diabetes, mental health, guideline, GRADE

Introduction

Background

Diabetes distress refers to the emotional strain or burden that arises from living with and dealing with the daily demands of diabetes [1, 2]. Adults with type 1 diabetes or type 2 diabetes think about their condition, on average, every 12 minutes, varying by treatment type [3]. This can include worries, fears, guilt, frustration, or sadness due to the relentless management of medications, monitoring, low or high glucose levels, food, physical activity, other people's reactions, problem solving, coping with setbacks, and the possibility of long-term complications.

Meta-analyses show that elevated diabetes distress is common, affecting about one in three adults living with type 1 diabetes or type 2 diabetes [4]. Rates appear to be similar across Europe, the USA and Australia (where most of the published assessments have taken place). More recently, it has been suggested that diabetes distress is more ubiquitous, with up to 80% of adults with diabetes endorsing at least one 'problem area', which may give rise to diabetes distress [5]. Regardless of the actual population prevalence, diabetes distress occurs when the individual perceives that the challenges of living with or managing the condition outweigh their ability to cope [6, 7]. Over periods of nine or eighteen months, the incidence of diabetes distress has been estimated at approximately 50% [8, 9]. Diabetes distress may be more prominent or more likely at or soon after diagnosis, when there is a change in treatment regimen or diagnosis of complications, or when there is a challenge to coping resources or social support (e.g. due to other life stressors, relationship or financial problems, or bereavement).

Diabetes distress is distinct from depression or other mood disorders, as it is not a diagnosable mental health condition and requires a different therapeutic approach. However, when diabetes distress becomes severe or chronic, it can negatively affect mental health, sometimes co-occurring with anxiety or depression, and can affect self-care, glycaemic indicators, and quality of life [2, 10–12]. A complete absence of diabetes distress may not necessarily be the ideal state, as it may indicate an inability to acknowledge relevant concerns or to ask for help. However, if left unaddressed, too much diabetes distress can seriously affect both mental and physical health. People who experience high levels of diabetes distress are more likely to develop depression and are less likely to recover from depressive symptoms once they appear [13, 14]. In addition, diabetes distress seems to be a risk factor for reduced quality of life [2, 15], elevated morbidity and premature mortality [16, 17].

As diabetes distress negatively impacts mental health and the long-term course of diabetes, it is crucial to identify individuals with high diabetes distress in a timely manner. Early recognition offers a strong opportunity to prevent more serious mental

health problems, to reduce the risk of long-term complications or their progression, to reduce the risk of early death, and to support better quality of life [2, 4, 18, 19].

Diabetes distress has been operationalised in various ways [20]. For the purposes of formal assessment in clinical practice or trials, there are two key validated tools or person-reported outcome measures (PROMs): the Problem Areas in Diabetes (PAID) scale [21] and the Diabetes Distress Scales for type 1 diabetes distress [7] and type 2 diabetes [22] Although there are some differences between these tools, which may affect the selection of one measure over another in given healthcare settings, all have satisfactory psychometric properties, show strong correlations with one another [23], and are available in several languages. Table 1 shows that there are several validated versions, including short forms, of each tool [24, 25].

Table 1: Validated measures for assessing diabetes distress among adults with type 1 diabetes and type 2 diabetes

Name	*Variations*	*Comments*	*Scoring / interpretation*
Diabetes Distress Scale (DDS or DDS17)	DDS2, T1-DDS, T2-DDS	DDS2: Screening version for Diabetes Distress consisting of 2 items (Items 6 and Item 14 of the DDS). Several versions available, varying in numbers of items (from 2 to 28; some versions are specific to type 1 diabetes or type 2 diabetes (T1 or T2).	DDS2: Scale scores range 1-6; elevated diabetes distress is indicated by ≥2 of mean item scores [8]; if positive, use full DDS17 [22]. DDS17 or T2-DDS: Scale scores range 1-6, mean item score of all items; <2.0=little or no distress, 2.0-2.9= moderate distress, ≥ 3.0=high distress [1, 26]. T1-DDS: Total of 28 Items [7]. Score ranges are the same as the T2-DDS [27].
Problem Areas in Diabetes scale (PAID or PAID-20)	PAID-1, PAID-5, PAID-11, PAID-SF	Several versions available, varying in numbers of items (PAID-20 has 20 items, PAID-11 has 11 items, PAID-5 has 5 items and PAID-1 is a single item).	For all versions, items are rated from "no problem" to "serious problem". For the PAID-20, the sum score is transformed to a scale of 0 to 100; Interpretation: <17=no or little distress, ≥17 and <40=moderate distress, ≥40=high distress [21, 28]. Older classifications also mention cut-off scores of 30 to 33 as indicators of moderate distress [29, 30]. PAID-5: Includes 5 items (#3, 6, 12, 16, 19 of the PAID-20). The total scale range is 0 to 20. A cut-off score of 8 is suggested to define elevated distress [25]. This corresponds with 40% of the total scale range and is in line with the cut-off of 40 for the PAID-20. PAID-1 (#12 of the PAID-20): A score of ≥3 indicates elevated diabetes distress [25]. Given that all other versions of the PAID are scored 0-100, a cut-off of ≥40 can be interpreted accordingly as high diabetes distress.
Diabetes Distress Assessment Scales (DDAS)	T1-DDAS T2-DDAS	Both scales include a 'core scale' (i.e. items that assess the emotional experience) and a 'source scale' (i.e. common sources that may be driving the distress). The scales have been validated and published [31][32].	

DDAS: Diabetes Distress Assessment Scale; DDS: Diabetes Distress Scale; PAID: Problem Areas in Diabetes; SF: Short Form; T1: type 1 diabetes; T2: type 2 diabetes.

Importantly, when diabetes distress is identified, there are effective interventions for health professionals to consider [1, 12, 33, 34]. As noted above, diabetes distress can include negative emotions related to treatment regimen, food and eating, low or high glucose levels, worries about the future, social support (interpersonal) and relationships with health professionals. Accordingly, interventions to manage diabetes distress vary in scope to address a wide range of needs. These may include psychotherapeutic support, structured education or psychoeducation programs, organised or ad hoc peer support,

the use of technology [33–36] or the simplification of treatment regimens [1]. In line with established criteria for population and clinical screening, diabetes distress meets the requirement of being a common experience with substantial adverse consequences for mental health, physical health, and quality of life. Reliable and efficient short-form screening instruments are available, enabling timely identification of individuals at elevated risk within routine diabetes care. Furthermore, diabetes distress is amenable to intervention, supporting its inclusion as a target for detection and management in a comprehensive care framework.

Rationale for this guideline

Despite the high prevalence of diabetes distress, and its potential impacts on self-care, physical health and mental health, there is considerable variation in the extent to which healthcare professionals assess and manage diabetes distress in routine clinical practice. Healthcare professionals report being unclear about the difference between diabetes distress and depression, on which screening tools to use, how to have conversations about diabetes distress, and lack guidance on structured approaches to managing diabetes distress when it has been identified [5, 37–40]. This leads to missed opportunities to support the person to reduce their diabetes distress and improve diabetes outcomes and quality of life.

Importantly, people living with diabetes report feeling that the emotional burden of diabetes is overlooked by their healthcare professionals [41–43] leading to missed opportunities for effective, person-centred care and for identifying solutions to barriers to effective self-management.

It is evident that these inconsistencies and missed opportunities are, in part, due to the lack of evidence-based guidelines to inform best practice. ‘Guidelines for encouraging psychological well-being' have existed for more than 30 years [44, 45] and have been supported by recent position statements [46] and practical guides [39]. However, few are specific to diabetes distress and none include GRADE recommendations developed from systematic reviews and meta-analyses of the evidence. Several national and international clinical guidelines for type 1 diabetes and type 2 diabetes include brief recommendations to assess or screen for the presence of diabetes distress or psychological problems, but few provide detail about best practice for this assessment or for management if diabetes distress is detected.

Objective

The aim of this evidence-based clinical guideline is to support standardisation of the assessment and management of diabetes distress in clinical practice. This is the first guideline developed under the new EASD guideline development process, in accordance with its standard operating procedure [47] and aligned with internationally recognised principles for trustworthy guidelines [48–51].

Users of this guideline

This guideline is relevant for healthcare professionals supporting adults with type 1 diabetes or type 2 diabetes. These may include diabetologists, diabetes specialist nurses, endocrinologists, family physicians or general practitioners, nurse practitioners, and practice nurses, as well as other members of multidisciplinary teams, such as dietitians, mental health professionals, pharmacists, and social workers. This guideline may be implemented across diverse healthcare settings from primary care to specialist tertiary centres, with the goal of standardising how to assess and manage diabetes distress to improve the experiences and outcomes of clinical care among adults living with type 1 diabetes or type 2 diabetes.

Other potential users of the guideline include people living with diabetes; patient advocacy organisations, supporting and promoting the rights of people living with diabetes; policy makers, seeking to standardise clinical care in their region; professional organisations, establishing standards of practice or providing training to healthcare professionals; and researchers, studying diabetes care and ways to improve it.

Methods

The development of this guideline adhered to the standards established by the National Academy of Medicine (NAM) [48] and the Guidelines International Network (GIN) [49], ensuring transparency, methodological rigour, and stakeholder inclusivity. The process followed the EASD standard operating procedure for clinical practice guidelines [47]. Key components included the structured selection and roles of the Guideline Development Panel (GDP) members comprising multidisciplinary experts and individuals with lived experience of diabetes, the transparent management of conflicts of interest, adherence to the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) methodology for guideline development [50, 51], and a transparent development and review process. The details underpinning each of these processes have been previously published [47].

Guideline Development Panel

The GDP comprised ten members: two co-chairs (JSp, RH), two members with lived experience of diabetes (WJ, ML), four clinical experts (NH, KK, AM, JSt), and two methodologists (TK, FZ). The EASD Guidelines Oversight Committee (GOC) oversaw the appointment and operation of the GDP, as they do for all EASD guidelines [47]. For the present guideline, which is the first to be commissioned under the new EASD guideline development process [47], the GOC appointed the two GDP co-chairs and selected two in-house EASD GOC methodologists. The GDP co-chairs then proposed additional GDP members, who were subsequently approved by the GOC. The selection process of GDP

members placed strong emphasis on lived experience expertise, and diversity in gender, geography, and professional background (e.g., psychology, medicine, nursing). Further details about each GDP member, including their role, discipline, and affiliation, are summarised in Supplementary Table 1.

The two GDP co-chairs played a central leadership role in coordinating the work of the GDP, facilitating discussions during meetings, ensuring adherence to timelines, and guiding the GDP in reaching consensus at key decisions. The two GDP methodologists provided essential support throughout the process, by ensuring consistent application of the GRADE methodology and EASD standard operating procedure [47]. They guided the GDP in formulating the clinical questions in structured PICOT formats, drafted the GRADE evidence profiles [52] and Evidence-to-Decision (EtD) frameworks [53] for the clinical questions on the management of diabetes distress, and ensured alignment between the evidence and the final recommendations.

The inclusion of two GDP members with lived experience of diabetes was integral to the development of the guideline, ensuring that lived experience was considered in every aspect of the process. They informed the GDP about how diabetes distress can affect daily life, ensuring that the guideline's clinical questions addressed issues that matter to people living with diabetes. They actively participated in all GDP discussions and contributed to the GDP's interpretation of the evidence, particularly in relation to the diversity of values and preferences of people living with diabetes and the acceptability and feasibility of assessing and managing diabetes distress in clinical practice.

All GDP members held equal voting rights and actively contributed to all stages of the guideline development process, including the formulation and refinement of the clinical questions, review and interpretation of the evidence, and drafting and finalisation of the clinical practice recommendations.

All GDP members completed the INGUIDE Level 1 training, which provides a foundational understanding of evidence-based guideline development and GRADE methodology [54]. In addition, the two GDP methodologists (TK, FZ) completed the INGUIDE Level 2 training, which is required for methodological leads and provides advanced instruction on applying the GRADE approach in guideline development [54].

Management of conflicts of interest

The management of conflicts of interest followed the EASD standard operating procedure [47], in alignment with the Reporting Items for practice Guidelines in HealThcare (RIGHT) statement [55]. Conflicts of interest disclosures from all GDP members were collected and categorised as either 'significant' or 'non-significant', based on their financial magnitude and relevance to the guideline topic [47]. The disclosures of GDP co-chairs and GDP methodologists were reviewed by the GOC, while

those of the remaining GDP members were reviewed jointly by the GDP co-chairs and GOC. All GDP members were required to update their disclosures annually or if new relevant interests emerged. Disclosures are provided at the end of this document, covering the duration of the guideline development and the year preceding its commencement.

Formulation of clinical questions

The development of the guideline began with a scoping stage to identify and prioritise the clinical questions to be addressed [47]. The GDP methodologists prepared and circulated a template to all GDP members, inviting suggestions for potential clinical questions, using a format adapted from GRADE guidance [56]. The responses were collected, grouped, and used to guide GDP discussions aimed at reviewing, refining, and selecting the most clinically relevant questions. To support this stage, the GDP methodologists also conducted PubMed literature searches for previously published systematic reviews on interventions for diabetes distress.

The findings were summarised in tabular form and shared with the GDP to inform decisions. The final clinical questions were selected based on their relevance to clinical practice, and aligned to the priorities of people living with diabetes, and feasibility of addressing them within the available timeframe and resources. These steps led to agreement within the GDP to organise the questions into two broad domains: assessment and management of diabetes distress.

The final set of clinical questions included two broad questions related to the assessment of diabetes distress, one for adults with type 1 diabetes and one for adults with type 2 diabetes, and six overarching questions related to its management. For the management questions, the GDP applied the PICOT (Participants, Intervention, Comparator, Outcomes, and Type of studies) framework [56]. The management questions were developed separately for adults with type 1 diabetes and type 2 diabetes and were further distinguished by the type of comparison. The aetiology, management, treatment and experiences of living with diabetes and associated distress differ for people with type 1 diabetes and 2 diabetes and therefore can require different support to address their distress [57].

Eligible interventions were classified into three broad categories: (1) psychological interventions, based on psychotherapeutic approaches such as cognitive behavioural therapy, (2) psychoeducational interventions, which combined psychological components with educational content, and (3) miscellaneous interventions, encompassing approaches that did not fall into the previous categories, including education-only interventions, peer support interventions without a psychological component, or device-based interventions (e.g., continuous glucose monitoring systems). Comparators included either no active intervention (e.g., usual care alone) or

an active intervention from a different category. The GDP also reviewed available validated scales for assessing diabetes distress, and also a minimum clinically important difference (MCID) for the outcome of diabetes distress was defined to support interpretation of the magnitude and clinical relevance of intervention effects. The only study design considered eligible for addressing the management questions was the randomised controlled trial (RCT).

For the assessment questions, the GDP opted to issue Good Practice Statements, as described in the next sections of the present document, due to the lack of RCTs to inform the clinical questions. For the management questions, the GDP commissioned a *de novo* systematic review, which was conducted by an independent Evidence Synthesis Team (EST). The EST collaborated closely with the GDP to finalise the review protocol and to operationalise the PICOT elements for each question. Further details on the characteristics of the questions and the methodology of the evidence synthesis are available in Supplementary Material A: Evidence Synthesis Technical Report.

Categories of clinical practice recommendations

EASD clinical practice guidelines include three categories of recommendations: GRADE recommendations, Good Practice Statements, and Recommendations based on Ungraded Evidence (Table 2). These categories reflect the methodological principles described in the EASD standard operating procedure for guideline development [47].

Table 2: Categories of EASD clinical practice recommendations

Category	Description
GRADE Recommendation	Evidence-based recommendation based on GRADE certainty of evidence assessment and GRADE EtD framework, following a commissioned systematic review and meta-analysis results.
Good Practice Statement	Issued when necessary for safe and effective care, when the expected benefit is substantial and clear. Not based on a commissioned systematic review and meta-analysis, but supported by summaries of existing evidence.
Recommendation based on Ungraded evidence	Developed when insufficient evidence is found to permit a meta-analysis and GRADE certainty assessment. Based on other GRADE EtD parameters and the judgement of the GDP.

EtD: Evidence-to-Decision; GDP: Guideline Development Panel; GRADE: Grading of Recommendations, Assessment, Development and Evaluation

GRADE Recommendations

GRADE recommendations are developed based on a structured assessment of the evidence, starting with the structured formulation of clinical questions (i.e., in PICOT format for management questions), and followed by a formal systematic review and meta-analyses by an EST and commissioned by the EASD. For each clinical question,

the certainty of evidence is assessed (Table 3), and GRADE evidence profiles are developed based on the following domains: risk of bias, inconsistency, indirectness, imprecision, and additional domains (e.g., publication bias) [52].

Table 3: Levels of certainty of evidence according to GRADE methodology

Certainty	Explanation
High ⨁⨁⨁⨁	We are very confident that the true effect lies close to that of the estimate of the effect
Moderate ⨁⨁⨁◯	We are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different
Low ⨁⨁◯◯	We have limited confidence in the effect estimate: the true effect may be substantially different from the estimate of the effect
Very low ⨁◯◯◯	We have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect

GRADE: Grading of Recommendations, Assessment, Development and Evaluation

In addition to the GRADE evidence profiles, additional considerations are incorporated in the development of a recommendation using the GRADE EtD framework [53]. These include parameters such as balance between desirable and undesirable effects, values and preferences, resource use and cost-effectiveness, equity, acceptability, and feasibility [53]. GRADE recommendations are labelled according to both strength (e.g., strong or conditional) and direction (e.g., in favour of or against an intervention) [58], as shown in Table 4.

Table 4: Strength and direction of recommendations based on the GRADE 'Evidence to Decision' framework

Strength and direction	Explanation[a]
Strong in favour of the intervention	Desirable effects of the intervention clearly outweigh undesirable effects
Conditional (weak) in favour of the intervention	Desirable effects of the intervention probably outweigh undesirable effects but uncertainty exists (e.g. because of low certainty of evidence or because desirable and undesirable effects are closely balanced)
Conditional (weak) for either the intervention or the comparator	The balance of desirable and undesirable effects does not clearly favour either the intervention or the comparator.
Strong against the intervention	Undesirable effects of the intervention clearly outweigh desirable effects
Conditional (weak) against the intervention	Undesirable effects of the intervention probably outweigh desirable effects but uncertainty exists (e.g. because of low certainty of evidence or because desirable and undesirable effects are closely balanced)

[a] Desirable and undesirable effects include both the evidence on clinical outcomes (GRADE evidence profiles) and consideration of additional GRADE EtD parameters. GRADE: Grading of Recommendations, Assessment, Development and Evaluation; EtD: Evidence-to-Decision; GRADE: Grading of Recommendations, Assessment, Development and Evaluation

Good Practice Statements

Good Practice Statements are issued when a recommendation is considered ethically imperative, clearly beneficial, and unlikely to change in light of new evidence. A Good Practice Statement is appropriate when the following criteria are met: the action is necessary for safe, effective healthcare; the expected net benefit is substantial and clear; and conducting a formal evidence synthesis would be an inefficient use of the GDP's resources due to high opportunity cost [47, 59, 60]. Although a formal systematic review was not commissioned by the EASD for these recommendations, they are supported by existing evidence, such as prior systematic reviews or other types of pertinent research. Each Good Practice Statement is labelled as such [47].

Recommendations based on Ungraded Evidence

Recommendations based on ungraded evidence are formulated when a systematic review is commissioned for an important clinical question, but no meta-analysis and a subsequent GRADE certainty assessment can be conducted, due to lack of primary studies. Although GRADE evidence profiles are not developed in such cases, the GDP still considers relevant domains of the GRADE EtD framework before formulating a

recommendation. These considerations are complemented by the collective expertise and judgement of the GDP. Such a recommendation is labelled as a Recommendation based on Ungraded Evidence [47].

Assessment of diabetes distress

The clinical questions on the assessment of diabetes distress were addressed using Good Practice Statements in accordance with the EASD guidelines standard operating procedure [47]. Good Practice Statements were considered appropriate because the GDP judged that key aspects of assessing diabetes distress could not be primarily informed by RCTs, but rather by a broader body of conceptual, theoretical, observational and experiential evidence. In particular, the GDP recognised a clinical imperative to make recommendations that reflect real-world practice, professional consensus, and the practical needs of people living with diabetes. The aim was to provide clear and actionable guidance on core components of good clinical practice for identifying and assessing diabetes distress, without the use of a formal evidence synthesis and meta-analysis commissioned by the EASD, which would have entailed a high opportunity cost.

To inform the Good Practice Statements, the GDP used the findings of two opportunistic *de novo* realist reviews, which were conducted by the D-Stress project, an independent team of researchers within a separate research programme supported by the UK National Institute for Health Research Programme Grants for Applied Research (NIHR PGfAR reference number NIHR205441). Recognising the relevance and rigour of the realist reviews, the GDP sought and obtained approval from the D-Stress project to use their findings as the foundation for formulating the Good Practice Statements on the assessment of diabetes distress. The EASD had no role in commissioning or funding these reviews.

To support this process, the lead investigator of the realist reviews (JSt), also a member of the GDP, shared a report with the GDP describing the realist reviews' methodology, key concepts and findings [61]. This report provided both the conceptual framework and evidentiary foundation for the development of the Good Practice Statements. In brief, the realist reviews used a theory-driven approach to synthesise data from diverse sources and settings, with the goal of understanding how, for whom, and in what contexts various approaches to assess diabetes distress are effective. Separate realist syntheses were undertaken for type 1 diabetes and type 2 diabetes, and the findings were integrated into a set of coherent theoretical and practical insights relevant to clinical practice. Based on this information, two GDP members (JSt and JSp) prepared an initial draft of clinical questions, Good Practice Statements and rationales. These drafts were reviewed and discussed by the full GDP, and the Good Practice Statements were finalised by expert consensus (See Supplementary Material B: Bridging the evidence from the rapid realist review concepts to the Good Practice Statements).

Management of diabetes distress

The recommendations on the management of diabetes distress were based on a *de novo* evidence synthesis commissioned by the EASD and were formulated using the GRADE EtD framework.

Evidence synthesis

For the clinical questions on the management of diabetes distress, a systematic review of RCTs was conducted by the EST. The selection of the EST followed the procedures outlined in the EASD standard operating procedure, including an EASD open call and evaluation of tender applications both by the EASD GOC and external reviewers. In particular, the selection of the EST was based on the team's track record and experience in conducting high-quality systematic reviews and meta-analyses in topics relevant to the guideline, their professionalism, motivation and readiness to undertake the required tasks, and presence of minimal conflicts of interest [47].

The EST developed the protocol in collaboration with the GDP, and applied standardised methods for literature searching, screening, data extraction, risk of bias assessment, and meta-analyses. A detailed presentation of the evidence synthesis methodology including the protocol, data analyses, and findings is available in Supplementary material A: Evidence Synthesis Report. The EST Lead (FR) participated in regular meetings, approximately twice per month, with the GDP to provide updates and ensure alignment between the evidence synthesis and the clinical questions. In parallel, the GDP methodologists maintained close communication with the EST Lead, acting as the main liaison between the EST and the GDP to ensure methodological consistency and clarity throughout the process. All RCTs included in the meta-analyses assessed diabetes distress using either the DDS or the PAID scale, including validated variations of these instruments. To facilitate interpretation of effect sizes across trials, results were expressed as standardized mean differences (SMDs). An effect was considered clinically meaningful if the SMD was equal to or larger than 0.3 in absolute value. The magnitude of effect was categorized as follows: SMD ≤ −0.5, large effect; −0.5 < SMD ≤ −0.3, moderate effect; −0.3 < SMD ≤ −0.2, small effect; SMD > −0.2, trivial or no effect. More negative values indicated greater benefit (i.e., reduction in diabetes distress).

GRADE certainty of evidence assessments

For each management clinical question where meta-analysis was feasible, the certainty of evidence was assessed using the GRADE approach [52]. Independent assessments were conducted by the two GDP methodologists using the GRADEpro web application (available at https://www.gradepro.org/), based on five GRADE domains: risk of bias, inconsistency, indirectness, imprecision, and other domains (i.e., publication bias). The certainty of evidence for each meta-analysis estimate was categorised as high, moderate, low, or very low (Table 3), and findings were documented in GRADE evidence

profiles. The two GDP methodologists then reviewed and compared their independent GRADE certainty assessments and resolved any differences by consensus. These evidence profiles were subsequently presented to the GDP during an in-person meeting, discussed, and finalised by unanimous agreement of all GDP members. The final GRADE evidence profiles (available in Supplementary material C: GRADE Evidence Profiles for the management clinical questions) served as the basis for constructing the GRADE EtD frameworks and formulating clinical practice recommendations.

Formulation of recommendations

The two GDP methodologists drafted the GRADE EtD framework for each management clinical question, integrating both the GRADE evidence profiles and additional EtD parameters, including the balance of desirable and undesirable effects, values and preferences of people living with diabetes, resource use and cost-effectiveness, equity, acceptability, and feasibility [53]. Information for these parameters was drawn from focused PubMed searches conducted by the GDP methodologists, expert judgement of GDP members, inclusion of any additional pertinent evidence, and input from the two GDP members with lived experience of diabetes distress. The draft EtD frameworks and proposed recommendations were discussed and refined during an in-person meeting of the GDP using GRADEpro web application (available at https://www.gradepro.org/). Final recommendations were reached by consensus, with additional feedback incorporated from follow-up review rounds as needed.

The wording of the recommendations was formulated using standardised GRADE terminology, indicating both the strength and direction of each recommendation (Table 3). Recommendations for the management questions were categorised as follows (Table 2):

- GRADE recommendations: Developed when the EST conducted a meta-analysis and GRADE evidence profiles could be produced.
- Recommendations based on ungraded evidence: Developed when a meta-analysis was not possible due to insufficient primary research, precluding the development of GRADE evidence profiles. In these cases, GRADE EtD domains and GDP expertise and judgment were used to formulate recommendations. Such recommendations were considered only when the clinical question involved a comparison between intervention types that were commonly evaluated in the literature and deemed by the GDP to be particularly relevant to clinical practice. For example, we issued recommendations based on ungraded evidence for psychological compared to psychoeducational interventions, despite the absence of eligible RCTs, because these two intervention categories are the most frequently studied against usual care in RCTs and represent distinct theoretical frameworks.

Writing of the guideline

The writing of the guideline followed the procedures outlined in the EASD standard operating procedure for guideline development [47] and was structured according to the RIGHT statement and checklist [62]. The completed RIGHT checklist is available in Supplementary material D: RIGHT checklist.

Drafting responsibilities were shared among GDP members according to their roles and areas of expertise. The GDP methodologists (TK, FZ) took responsibility for drafting the methods section, as well as the GRADE evidence profiles and GRADE EtD frameworks that supported the development of the GRADE recommendations related to the management of diabetes distress. Recommendations related to the assessment of diabetes distress, formulated as Good Practice Statements, were primarily drafted by a GDP content expert (JSt), who also served as the lead researcher of the realist review underpinning the Good Practice Statements, and by one of the GDP co-chairs (JSp). The initial draft of the introduction was prepared by NH and JSp and the initial draft of the discussion was prepared by RH. GDP members with lived experience, clinical and content expertise reviewed all sections, ensuring that the recommendations were clinically relevant and appropriately contextualised. All GDP members reviewed the full guideline and provided feedback, suggestions, and additional contributions. Drafts were shared and revised using tracked versions, with successive iterations refined collaboratively until consensus was reached. The GDP co-chairs (JSp and RH) coordinated the writing process and ensured timely progression through each drafting stage.

Each recommendation is presented in a consistent and structured format comprising: (1) the clinical question; (2) the recommendation; and (3) a rationale and explanation, which summarises the key considerations or concepts that informed the recommendation. For management-related clinical questions that were supported by a GRADE certainty of evidence assessment, a concise summary of the corresponding GRADE evidence profile is also presented.

Review of the guideline

The guideline underwent a review process in accordance with the EASD standard operating procedure for guideline development [47]. The process included an initial internal review conducted by the GDP and EST lead. GDP members reviewed the complete draft, and the GDP co-chairs coordinated the integration of feedback ensuring consensus across the GDP and consistency with the EASD standard operating procedure. In addition, the Appraisal of Guidelines, Research and Evaluation (AGREE) II score sheet [63] was completed independently by two methodologists from the EASD GOC who were not members of the GDP. Their completed score sheets are available in Supplementary Material E: AGREE II score sheet.

Following the internal GDP review, the guideline was submitted to the EASD GOC for formal internal review. Where comments were provided, the GDP addressed them and incorporated revisions accordingly. After this stage, the guideline was presented in draft form at the EASD Annual Meeting in September 2025 and was then made available for external review through a 6-week period of public consultation, open to people living with type 1 diabetes or type 2 diabetes, healthcare professionals and any other interested parties.

The final stage of peer review involves an external review group including clinicians, researchers, and representatives of working partners and community collaborators directly affected by the recommendations. These reviewers are appointed by the EASD GOC and their role is to assess the clarity, completeness, and relevance of the guidance, without altering the recommendations issued by the GDP.

Dissemination plan and future update

In accordance with the EASD standard operating procedure for guideline development [47], a dissemination plan will be developed to support the accessibility and implementation of this guideline. This includes publication of the full guideline document in a peer-reviewed journal, free availability of this report (open access) on the EASD website and/or through the websites of partner organisations (e.g. the PsychoSocial Aspects of Diabetes (PSAD) Study Group) and communication via social media or other channels. Additionally, accessible plain language formats (e.g., summaries for people living with diabetes) may be developed to support broader awareness and uptake. The dissemination plan may also include the use of the GRADE-ADOLOPMENT approach [64], enabling other groups to adopt, adapt, or selectively implement the recommendations according to their local context. Such adaptations will require approval from the EASD Guideline Oversight Committee and EASD Board.

The EASD standard operating procedure further outlines the potential for future updates to EASD guidelines [47], based on the emergence of new evidence or changes in clinical practice. Any decision to update this guideline will be made by the GOC in consultation with the GDP, based on the relevance and magnitude of new evidence or other justifying factors.

Administrative support

The EASD Office team provided crucial support throughout the development of this guideline. Although not formal members of the GOC, the GDP, or the EST, the EASD Office team ensured the smooth operation of the process by coordinating meetings, distributing materials, facilitating communication between parties involved, and record-keeping. Their efficiency and responsiveness contributed greatly to the effective collaboration across all parties involved.

Clinical practice recommendations

The clinical practice recommendations are categorised as Good Practice Statements for the assessment of diabetes distress (Table 5) or GRADE and ungraded recommendations for the management of diabetes distress (Table 6 and Table 7). Each recommendation is in response to a clinical question and the rationale for the recommendation is summarised, based on the appropriate evidence.

Table 5: Good Practice Statements for the assessment of diabetes distress among adults with type 1 diabetes and type 2 diabetes

#	Recommendations
A.1	Healthcare professionals should discuss the emotional side of diabetes at every consultation as an integral component of person-centred diabetes care.
A.2	Healthcare professionals should *ask* about diabetes distress using open-ended questions, framed around the emotional burden or challenges of living with diabetes.
A.3	Healthcare professionals should *assess* diabetes distress using a valid and reliable tool.
A.4	Healthcare professionals should assess and monitor diabetes distress at regular intervals, as part of the annual cycle of care.
A.5	Healthcare professionals should acknowledge and discuss the person's assessment, irrespective of the findings, as part of effective, person-centred care.
A.6	Healthcare professionals should record the findings of the diabetes distress assessment in the clinical notes, and discuss them with relevant members of the healthcare team.
A.7	When diabetes distress is identified, healthcare professionals should make a joint plan with the person living with diabetes about next steps.
A.8	General and diabetes-specialist healthcare professionals should have the competency to offer psychological support to those experiencing diabetes distress and know how to enlist specialist support when it is needed.

Table 6: GRADE and ungraded recommendations for the management of diabetes distress among adults with type 1 diabetes

#	Recommendations	GRADE Certainty of evidence
M1.1	We suggest using psychological interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Low ⨁⨁◯◯
M1.2	We do not suggest using psychoeducational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Very low ⨁◯◯◯
M1.3	We do not suggest using educational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Ungraded
M1.4	We do not suggest using peer support interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.	Ungraded
M1.5	We do not suggest using psychological interventions instead of psychoeducational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.	Ungraded
M1.6	We do not suggest using psychological interventions instead of educational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.	Very low ⨁◯◯◯
M1.7	We do not suggest psychoeducational interventions instead of educational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.	Low ⨁⨁◯◯
M1.8	We suggest using continuous glucose monitoring (CGM), rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 1 diabetes.	Moderate ⨁⨁⨁◯
M1.9	We do not suggest using automated insulin delivery (AID) systems, rather than no use of AID, to reduce diabetes distress among adults with type 1 diabetes.	Moderate ⨁⨁⨁◯

Table 7: GRADE and ungraded recommendations for the management of diabetes distress among adults with type 2 diabetes

#	Recommendations	GRADE Certainty of evidence
M2.1	We suggest using psychological interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯
M2.2	We suggest using psychoeducational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯
M2.3	We suggest using educational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.	Low ⊕⊕◯◯
M2.4	We do not suggest using peer support interventions in addition to usual care, rather than usual care alone to reduce diabetes distress among adults with type 2 diabetes.	Low ⊕⊕◯◯
M2.5	We suggest using either psychological or psychoeducational interventions to reduce diabetes distress among adults with type 2 diabetes.	Ungraded
M2.6	We suggest using either psychological or educational interventions to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯
M2.7	We suggest using psychoeducational interventions, rather than educational interventions, to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯
M2.8	We suggest using educational interventions rather than peer support interventions to reduce diabetes distress among adults with type 2 diabetes.	Low ⊕⊕◯◯
M2.9	We do not suggest using continuous glucose monitoring (CGM), rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 2 diabetes.	Very low ⊕◯◯◯

Assessment of diabetes distress

Detailed results of the realist reviews supporting the good practice statements for the assessment of diabetes distress can be found in Supplementary material B: Bridging the evidence from the rapid realist review concepts to the Good Practice Statements. All clinical questions and Good Practice Statements related to both type 1 diabetes and type 2 diabetes.

Clinical question A.1

Should healthcare professionals discuss the emotional side of diabetes during routine consultations?

Good Practice Statement A.1

Healthcare professionals should discuss the emotional side of diabetes at every consultation as an integral component of person-centred diabetes care.

Rationale for the recommendation

Routine discussion of the emotional side of diabetes is important as it: a) acknowledges that diabetes is a challenging and long-term condition, and that the emotional side of diabetes is important (both for emotional and physical well-being); b) ensures that the emotional side of diabetes is valued alongside other metabolic and clinical indicators, as an essential component of effective clinical care; c) prompts reflection, and acknowledges, identifies and enables consideration of unmet needs , enabling insights to be gained into how clinical care can be tailored to support the individual's circumstances and context; and d) enables early, appropriate intervention to reduce the distress due to living with and managing diabetes.

Clinical question A.2

How should healthcare professionals ask about diabetes distress in routine consultations?

Good Practice Statement A.2

Healthcare professionals should *ask* about diabetes distress using open-ended questions, framed around the emotional burden or challenges of living with diabetes.

Rationale for the recommendation

Routinely asking about diabetes distress with curiosity, and further exploring responses, results in an expectation for both the health care professional and the person with diabetes that this is an expected part of usual diabetes care. Doing so extends the role of the healthcare professional and increases expectation for both that this discussion will take place.

Clinical question A.3

How should healthcare professionals assess for the presence of diabetes distress?

Good Practice Statement A.3

Healthcare professionals should *assess* diabetes distress using a valid and reliable tool.

Rationale for the recommendation

This practice enables the healthcare professional and the person living with diabetes to identify specific experiences and sources of diabetes distress. It enables the person living with diabetes to direct the consultation to issues that are important to them and/or acting as barriers to optimal self-care. The use of valid and reliable assessment tools also ensures consistency in clinical assessments, to facilitate appropriate shared decision making and development of joint plans, and to monitor changes over time. Validated tools have guidance for scoring and interpretation, which can be used to guide whether diabetes distress is substantive enough to require further support or intervention.

Clinical question A.4

How often should healthcare professionals assess for diabetes distress?

Good Practice Statement A.4

Healthcare professionals should assess and monitor diabetes distress at regular intervals, as part of the annual cycle of care.

Rationale for the recommendation

Assessing diabetes distress as part of the annual cycle of care ensures it is considered alongside other metabolic and clinical indicators. It also ensures that the emotional side is considered at ‘turning points’ in the course of the condition (e.g. changing medications, onset or progression of complications) and that no one experiencing diabetes distress is missed.

Clinical question A.5

When diabetes distress is assessed, how should healthcare professionals respond?

Good Practice Statement A.5

Healthcare professionals should acknowledge and discuss the person's assessment, irrespective of the findings, as part of effective, person-centred care.

Rationale for the recommendation

This practice ensures that the person's experiences and emotional responses to living with diabetes are validated and that appropriate actions can be considered to support the person. Discussion following assessment enables people to acknowledge their own emotional health status, which supports them to take note and recognise if they may need to take action themselves. Prioritising these health needs is important for a person in addressing their own emotional regulation alongside available or necessary support provided by the healthcare team.

Clinical question A.6

How should healthcare professionals communicate the findings of the assessment?

Good Practice Statement A.6

Healthcare professionals should record the findings of the diabetes distress assessment in the clinical notes, and discuss them with relevant members of the healthcare team.

Rationale for the recommendation

This practice promotes continuity of care across a multidisciplinary team, ensuring that all members of the team are aware of the person's experiences. This may be particularly important if the next consultation is with a different member of the healthcare team. This practice enables people living with diabetes to feel that emotional health is a common thread across the healthcare team, and valued alongside other issues, such as screening and glucose metrics.

Clinical question A.7

When diabetes distress is identified, how should healthcare professionals respond?

Good Practice Statement A.7

When diabetes distress is identified, healthcare professionals should make a joint plan with the person living with diabetes about next steps.

Rationale for the recommendation

This practice enables development of a clear, person-centred plan for reducing diabetes distress. It facilitates a greater understanding of the person's specific sources of diabetes distress enabling targeted shared decision-making. Shared follow up planning may include direct support, referral to appropriate services, and arrangements for timely

follow-up care. Joint planning requires healthcare professionals to consider their personal training needs.

Clinical question A.8

When diabetes distress is identified, should healthcare professionals deliver psychological support or refer to a mental health professional?

Good Practice Statement A.8

General and diabetes-specialist healthcare professionals should have the competency to offer psychological support to those experiencing diabetes distress and know how to enlist specialist support when it is needed.

Rationale for the recommendation

This practice is effective and welcomed by people living with diabetes. Having competency extends the scope of the healthcare professional and results in greater role satisfaction.

Management of diabetes distress

Detailed results of the meta-analyses supporting the clinical practice recommendations for the management of diabetes distress can be found in Supplementary Material A: Evidence Synthesis Report. The corresponding GRADE Evidence Profiles and GRADE EtD frameworks for each management clinical question are provided in Supplementary Material C and Supplementary Material F, respectively.

Type 1 diabetes

Clinical question M1.1

Should psychological interventions be used, rather than usual care, to reduce diabetes distress among adults living with type 1 diabetes?

GRADE Recommendation M1.1

We suggest using psychological interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes

(Conditional recommendation based on low certainty of evidence).

GRADE Certainty of Evidence

Low certainty evidence ⨁⨁◯◯

This recommendation is conditional, based on low-certainty evidence from a meta-analysis of 16 RCTs (17 comparisons) [65–80] including 1,342 adults with type 1 diabetes (n=642 randomised to psychological interventions). The pooled SMD was −0.22 (95% CI: −0.35 to −0.08), favouring psychological interventions over usual care for reducing diabetes distress.

Rationale for the recommendation

We suggest considering psychological interventions alongside usual care, given their small but beneficial effect in reducing diabetes distress and the lack of evidence for potential harm. While the certainty of evidence is low, these interventions appear acceptable to adults with type 1 diabetes, may promote health equity, and are consistent with stakeholder values that prioritise emotional well-being. Furthermore, considerations around feasibility and resource use support the potential integration of these interventions into clinical practice.

Clinical question M1.2

Should psychoeducational interventions be used, rather than usual care, to reduce diabetes distress among adults living with type 1 diabetes?

GRADE Recommendation M1.2

We do not suggest using psychoeducational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low certainty evidence ⊕◯◯◯

This recommendation is conditional, based on low-certainty evidence from a meta-analysis of 2 RCTs [81, 82] including 133 adults with type 1 diabetes (n=62 randomised to psycho-educational interventions). The pooled SMD was -0.17 (95% CI: −0.62 to 0.28), comparing psycho-educational to usual care on diabetes distress.

Rationale for the recommendation

We make a conditional recommendation against the routine use of psycho-educational interventions, as compared to usual care, for reducing diabetes distress among adults with type 1 diabetes. This recommendation is based on evidence of very low certainty derived from two studies. Although the potential for undesirable effects appears to be minimal, the overall balance of benefits and harms does not support the intervention. Implementation of such interventions may require additional training for healthcare professionals, as well as integration into routine diabetes care. Feasibility of delivery across diverse healthcare settings may be enhanced by using general or diabetes health professionals trained in the delivery of such interventions (i.e. they do not necessarily require a mental health specialist for delivery) or using digital delivery formats (where evidence suggests equivalent effectiveness).

Clinical question M1.3

Should educational interventions be used, rather than usual care, to reduce diabetes distress among adults living with type 1 diabetes?

Recommendation based on ungraded evidence M1.3

We do not suggest using educational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.

(Recommendation based on ungraded evidence)

GRADE Certainty of Evidence

Ungraded

Rationale for the recommendation

As no RCTs were identified that directly compared the effects of educational interventions versus usual care on diabetes distress among adults living with type 1 diabetes, we made an ungraded recommendation. This recommendation reflects an evidence gap and should not be interpreted as evidence of no benefit or harm. Future studies should directly compare educational interventions with usual care in terms of their effect on diabetes distress, and ideally include assessments of resource use, feasibility, and cost-effectiveness to inform future decision-making.

Clinical question M1.4

Should peer support interventions be used, rather than usual care, to reduce diabetes distress among adults living with type 1 diabetes?

Recommendation based on ungraded evidence M1.4

We do not suggest using peer support interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 1 diabetes.

(Recommendation based on ungraded evidence)

GRADE Certainty of Evidence

Ungraded

Rationale for the recommendation

No eligible RCTs were identified for inclusion in a meta-analysis comparing peer support interventions with usual care for their effects on diabetes distress among adults with type 1 diabetes. In the absence of synthesised direct evidence supporting likely benefit, we made an ungraded recommendation not to suggest peer support interventions in addition to usual care. This reflects the current evidence gap and does not imply that peer support is ineffective or harmful. Future studies should compare peer support interventions with usual care in terms of their impact on diabetes distress, and should also assess feasibility, resource use, and cost-effectiveness in real-world healthcare settings.

Clinical question M1.5

Should psychological interventions be used, rather than psychoeducational interventions, to reduce diabetes distress among adults living with type 1 diabetes?

Recommendation based on ungraded evidence M1.5

We do not suggest using psychological interventions instead of psychoeducational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.

(Recommendation based on ungraded evidence).

GRADE Certainty of Evidence

Ungraded

Rationale for the recommendation

No eligible RCTs were identified for inclusion in a meta-analysis that directly compared the effect of psychological interventions with psycho-educational interventions on diabetes distress. There was also no indirect evidence suggesting a benefit of one approach over the other. As a result, we issue an ungraded recommendation not to suggest one intervention over the other for adults with type 1 diabetes. This recommendation reflects a lack of comparative evidence. It does not reflect evidence of equivalence, superiority, or harm of one treatment compared to the other. Future research should prioritise direct comparisons of psychological and psycho-educational interventions, assessing their relative impacts on diabetes distress, their feasibility of implementation and their cost-effectiveness.

Clinical question M1.6

Should psychological interventions be used, rather than educational interventions, to reduce diabetes distress among adults with type 1 diabetes?

GRADE Recommendation M1.6

We do not suggest using psychological interventions instead of educational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low certainty evidence ⨁◯◯◯

This conditional recommendation is based on very low-certainty evidence from a meta-analysis of 2 RCTs [83, 84] including 482 adults with type 1 diabetes (242 randomised to psychological interventions) and resulting in a pooled SMD of –0.11 (95% CI: -0.44 to 0.23) comparing psychological interventions vs. educational without psychological interventions.

Rationale for the recommendation

We issue a conditional recommendation not to prefer psychological interventions over educational interventions or vice versa for reducing diabetes distress in adults with type 1 diabetes. This recommendation is based on very low certainty of evidence from a meta-analysis of two RCTs, which found no significant difference on diabetes distress between the two intervention types. No important differences are expected in terms of undesirable effects, acceptability, feasibility, or cost-effectiveness, although these factors may vary depending on context and implementation. It remains uncertain whether psychological interventions offer a greater advantage in reducing disparities compared to educational interventions; therefore, no conclusions can be drawn regarding their relative impact on health equity.

Clinical question M1.7

Should psychoeducational interventions be used, rather than educational interventions, to reduce diabetes distress among adults with type 1 diabetes?

GRADE Recommendation M1.7

We do not suggest psychoeducational interventions instead of educational interventions or vice versa to reduce diabetes distress among adults with type 1 diabetes.

(Conditional recommendation based on low certainty of evidence)

GRADE Certainty of Evidence

Low certainty evidence ⨁⨁◯◯

This conditional recommendation is based on low-certainty evidence from a meta-analysis of 3 RCTs [85–87]including 327 adults with type 1 diabetes (n=165 randomised to psychoeducational interventions) and resulting in a pooled SMD of –0.02 (95% CI: -0.23 to 0.20) comparing psycho-educational interventions vs. miscellaneous interventions.

Rationale for the recommendation

We made a conditional recommendation not preferencing psychoeducational interventions over educational interventions (or vice versa) for reducing diabetes distress among adults with type 1 diabetes. We found no difference in effect on diabetes distress between the two intervention types, with an almost perfectly symmetrical 95% CI. The certainty of the evidence was low, and although some contextual variability is likely, no important differences are expected in terms of undesirable effects, acceptability, feasibility, or cost-effectiveness. A conditional recommendation reflects that, while the balance of evidence does not support a clear preference for either intervention, further research may influence this decision. Future studies should explore comparative effectiveness and also consider context-specific factors that may influence implementation and outcomes.

Clinical question M1.8

Should continuous glucose monitoring (CGM) be used, rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 1 diabetes?

GRADE Recommendation M1.8

We suggest using continuous glucose monitoring (CGM), rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 1 diabetes.

(Conditional recommendation based on moderate certainty of evidence)

GRADE Certainty of Evidence

Moderate certainty evidence ⊕⊕⊕◯

This conditional recommendation is based on moderate certainty evidence from a meta-analysis of 6 RCTs [88–93] including 723 adults with type 1 diabetes (425 randomised to CGM): the pooled SMD was -0.26 (95% CI: -0.41 to −0.11) comparing CGM to capillary glucose monitoring.

Rationale for the recommendation

We issued a conditional recommendation for the use of CGM over capillary glucose monitoring in adults with type 1 diabetes, based on moderate certainty of evidence. Evidence from RCTs indicates that CGM results in a small reduction in diabetes distress compared to capillary glucose monitoring. Although undesirable effects such as alarm fatigue and information overload may occur, they are unlikely to outweigh the benefits. The cost-effectiveness of CGM appears favourable in certain populations, although this remains context dependent. This conditional recommendation reflected also as the variability in values, resources, and implementation capacity which may influence decision-making in specific settings. Furthermore, further research may increase certainty or clarify the impact in subpopulations and under different implementation models.

Clinical question M1.9

Should automated insulin delivery (AID) systems be used, rather than no use of AID, to reduce diabetes distress among adults with type 1 diabetes?

GRADE Recommendation M1.9

We do not suggest using automated insulin delivery (AID) systems, rather than no use of AID, to reduce diabetes distress among adults with type 1 diabetes.

(Conditional recommendation based on moderate certainty of evidence)

GRADE Certainty of Evidence

Moderate certainty evidence ⊕⊕⊕◯

This conditional recommendation is based on moderate certainty evidence from a meta-analysis of 4 RCTs [94–97] including 484 adults with type 1 diabetes (310 randomised to AID): the pooled SMD was -0.05 (95% CI: -0.26 to 0.16) comparing AID to no AID.

Rationale for the recommendation

As the evidence from RCTs did not demonstrate a meaningful difference in diabetes distress between AID and non-AID groups, we issued a conditional recommendation for either the use or non-use of AID systems for the purpose of reducing diabetes distress in adults with type 1 diabetes, based on moderate certainty of evidence, This recommendation applies specifically to the outcome of diabetes-related distress and does not consider the other potential clinical benefits of AID systems for glycaemic outcomes or other endpoints outside the scope of this question. Further studies should be designed to assess the impact of AID systems on psychosocial outcomes, with pre-specified measures and adequate power to detect meaningful effects on diabetes distress.

Type 2 diabetes

Clinical question M2.1

Should psychological interventions be used, rather than usual care, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.1

We suggest using psychological interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low certainty evidence ⨁◯◯◯

This recommendation is based on a meta-analysis of 20 RCTs [69–71, 74, 76, 80, 98–111] including 4,435 adults with type 2 diabetes (2,196 assigned to psychological interventions and 2,239 to usual care). The pooled SMD for diabetes distress was −0.31 (95% CI: −0.50 to −0.13), indicating a moderate beneficial effect of psychological interventions compared to usual care.

Rationale for the recommendation

We suggest psychological interventions in addition to usual care due to their moderate beneficial effect on reducing diabetes distress and minimal associated harms. Although the certainty of evidence is very low, the intervention can be acceptable to adults with type 2 diabetes, may support equity, and aligns with stakeholder values prioritising emotional well-being. Considerations of feasibility and resource use also support its potential implementation in clinical practice.

Clinical question M2.2

Should psychoeducational interventions be used, rather than usual care, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.2

We suggest using psychoeducational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low certainty evidence ⨁◯◯◯

This recommendation is based on a meta-analysis of 23 RCTs (26 comparisons) [81, 82, 112–132] including 3,617 adults with type 2 diabetes (1,880 assigned to psychoeducational interventions and 1,737 to usual care). The pooled SMD for diabetes distress was −0.18 (95% CI: −0.37 to 0.02), indicating a small, borderline effect in favour of psychoeducational interventions over usual care.

Rationale for the recommendation

We suggest psychoeducational interventions in addition to usual care due to their potential to provide small reductions in diabetes distress with no evidence of associated harms. Despite the very low certainty of evidence and a borderline effect estimate, the panel judged that the potential benefits, particularly in enhancing patient understanding and coping strategies, outweighed the minimal risks. These interventions may be acceptable to people with type 2 diabetes and align with expressed values around emotional well-being and informed disease management. While feasibility may vary by setting, their integration into routine care remains a reasonable option where resources and personnel permit.

Clinical question M2.3

Should educational interventions be used, rather than usual care, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.3

We suggest using educational interventions in addition to usual care, rather than usual care alone, to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on low certainty of evidence)

GRADE Certainty of Evidence

Low certainty evidence ⨁⨁◯◯

This recommendation is based on a meta-analysis of 3 RCTs [133–135] including 317 adults with type 2 diabetes (138 assigned to educational interventions and 179 to usual care). The pooled SMD for diabetes distress was −0.34 (95% CI: −0.56 to −0.11), indicating a moderate beneficial effect of educational interventions compared to usual care.

Rationale for the recommendation

We suggest educational interventions in addition to usual care due to their moderate beneficial effect on reducing diabetes distress and minimal associated harms. Although supported by only a few RCTs, the observed effect was meaningful, and there is no evidence suggesting that these interventions are associated with any important harms. Educational interventions may be acceptable to adults with type 2 diabetes and contribute to improved self-management and emotional well-being. While feasibility may vary depending on context, integration into routine care is possible, particularly where training and delivery infrastructure are available.

Clinical question M2.4

Should peer support interventions be used, rather than usual care, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.4

We do not suggest using peer support interventions in addition to usual care, rather than usual care alone to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on low certainty of evidence)

GRADE Certainty of Evidence

Low certainty evidence ⨁⨁◯◯

This recommendation is based on a meta-analysis of 4 RCTs (5 comparisons) [136–139] including 815 adults with type 2 diabetes (410 assigned to peer support and 405 to usual care). The pooled SMD for diabetes distress was −0.07 (95% CI: −0.25 to 0.11), indicating no meaningful effect of peer support interventions compared to usual care.

Rationale for the recommendation

We do not suggest peer support interventions over usual care because the evidence showed no clear benefit in reducing diabetes distress. The certainty of evidence is low, and the pooled effect was close to null. While peer support may still offer value through secondary outcomes like improved self-management or emotional support, it does not appear to meaningfully reduce diabetes distress when added to usual care. Harms are considered minimal, and feasibility may vary depending on program design, leadership, and integration into existing care systems.

Clinical question M2.5

Should psychological interventions be used, rather than psychoeducational interventions, to reduce diabetes distress among adults with type 2 diabetes?

Recommendation based on ungraded evidence M2.5

We suggest using either psychological or psychoeducational interventions to reduce diabetes distress among adults with type 2 diabetes.

(Recommendation based on Ungraded evidence)

GRADE Certainty of Evidence

Ungraded

Rationale for the recommendation

No meta-analysis could be conducted due to the paucity of eligible data directly comparing psychological with psychoeducational interventions on the outcome of diabetes distress in adults with type 2 diabetes. While both types of interventions showed beneficial effects in separate comparisons with usual care, there is no indirect evidence indicating a clear benefit of one over the other. This recommendation reflects a lack of comparative evidence and not evidence of equivalence, superiority, or harm of one intervention over the other. Future research should prioritise direct head-to-head comparisons of these interventions, assessing their relative impact on distress, feasibility, and cost-effectiveness across diverse settings.

Clinical question M2.6

Should psychological interventions be used, rather than educational interventions, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.6

We suggest using either psychological or educational interventions to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low certainty evidence ⨁◯◯◯

This recommendation is based on a meta-analysis of 10 RCTs (12 comparisons) [140–149] including 2,419 adults with type 2 diabetes (1,359 assigned to psychological interventions and 1,060 to educational interventions). The pooled SMD for diabetes distress was −0.29 (95% CI: −0.98 to 0.39), reflecting a highly uncertain estimate with very low certainty.

Rationale for the recommendation

We suggest that either psychological or educational interventions may be suitable for reducing diabetes distress in adults with type 2 diabetes, given their demonstrated benefits in separate comparisons with usual care. The available evidence does not allow firm conclusions about the relative superiority of one approach over the other, and the wide confidence intervals indicate considerable uncertainty in the estimated effects. Despite this, both interventions are potentially valuable, and their implementation can be guided by local context, patient preferences, and resource availability.

Clinical question M2.7

Should psychoeducational interventions be used, rather than educational interventions, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.7

We suggest using psychoeducational interventions, rather than educational interventions, to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low-certainty evidence ⨁◯◯◯

This recommendation is based on a meta-analysis of 13 RCTs [150–162] including 1,693 adults with type 2 diabetes (881 assigned to psychoeducational interventions and 812 to educational interventions). The pooled SMD for diabetes distress was −0.15 (95% CI: −0.34 to 0.03), indicating a small and uncertain effect in favour of psychoeducational interventions.

Rationale for the recommendation

We suggest psychoeducational over educational interventions due to a small potential benefit in reducing diabetes distress and minimal associated harms. Although the certainty of evidence is very low and the effect estimate is borderline, psychoeducational approaches may offer additional support through their combined focus on education and emotional coping strategies. Given the overlap in intervention content and variability in implementation, either approach could be considered depending on contextual factors, but psychoeducational interventions may provide added value in addressing emotional aspects of diabetes care.

Clinical question M2.8

Should educational interventions be used, rather than peer support interventions, to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.8

We suggest using educational interventions rather than peer support interventions to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on low certainty of evidence)

GRADE Certainty of Evidence

Low-certainty evidence ⨁⨁◯◯

This recommendation is based on a meta-analysis of 3 RCTs [163–165] including 476 adults with type 2 diabetes (241 assigned to educational interventions and 235 to peer support). The pooled SMD for diabetes distress was −0.10 (95% CI: −0.28 to 0.08), indicating a small trend favouring educational over peer support interventions.

Rationale for the recommendation

We suggest educational interventions over peer support due to a small trend toward benefit in reducing diabetes distress and minimal associated harms. While the certainty of evidence is low, educational approaches may be more systematically implemented and structured, especially in settings with established diabetes education infrastructure. Peer support may still hold contextual value in underserved groups, but overall, the evidence supports educational interventions as a more favourable option for broader implementation.

Clinical question M2.9

Should continuous glucose monitoring (CGM) be used, rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 2 diabetes?

GRADE Recommendation M2.9

We do not suggest using continuous glucose monitoring (CGM), rather than capillary glucose monitoring (finger prick), to reduce diabetes distress among adults with type 2 diabetes.

(Conditional recommendation based on very low certainty of evidence)

GRADE Certainty of Evidence

Very low-certainty evidence ⨁◯◯◯

This recommendation is based on a meta-analysis of 3 RCTs [166–168] including 611 adults with type 2 diabetes (345 assigned to CGM and 266 to capillary glucose monitoring). The pooled SMD for diabetes distress was −0.35 (95% CI: −0.80 to 0.28), indicating no clear benefit of CGM over capillary glucose monitoring for reducing diabetes distress

Rationale for the recommendation

We do not suggest using CGM over capillary glucose monitoring solely for the purpose of reducing diabetes distress due to the absence of a demonstrated beneficial effect and the very low certainty of evidence. While CGM may offer important advantages for glycaemic control and diabetes self-management, its specific impact on emotional well-being remains unclear. Implementation should therefore be guided by individual patient needs, preferences, and other clinical considerations.

Discussion

This guideline represents a significant milestone in the assessment and management of diabetes distress in clinical practice, and is notable as the first time the EASD has issued an evidence-based clinical practice guideline. Developed through a rigorous, transparent, and inclusive process, the guideline provides evidence-based recommendations for the assessment and management of diabetes distress among adults with type 1 diabetes and type 2 diabetes. It addresses a long-standing gap in diabetes care by offering practical guidance to healthcare professionals seeking to integrate emotional support into routine clinical practice.

In terms of the assessment of diabetes distress, eight Good Practice Statements highlight the importance of recognising that emotional health and healthcare is as critical as physical health and healthcare. By encouraging open, empathic conversations (A.1, A.2) and the use of a validated tool to identify diabetes distress (A.3), these recommendations enable healthcare professionals to have opportunities to understand the challenges people experience due to living with and managing diabetes every day. Regular monitoring as part of the annual cycle of care (A.4) ensures that emotional needs are not overlooked. Acknowledging and discussing responses to assessments (A.5) builds trust, validates experiences and supports person-centred care. Recording and communicating these findings across the multidisciplinary team (A.6) facilitates continuity of care and collaboration in care planning. Importantly, developing a joint plan with the person experiencing diabetes distress (A.7) also promotes truly person-centred care. Finally, general and diabetes-specialist healthcare professionals should have the competency to offer psychological support or refer to specialist support when it is needed (A.8). Together, these practices create a structured and compassionate approach to integrating the emotional side of diabetes into high-quality diabetes care.

For the management of diabetes distress, the GRADE recommendations reflect a cautious approach to selecting interventions to support adults with type 1 diabetes experiencing diabetes distress, highlighting both the potential and the limitations of the evidence base. The strongest GRADE recommendations relate to the use of technology, supporting the use of CGM, rather than capillary glucose monitoring (M1.8), but highlighting that automated insulin delivery (AID) systems does not automatically reduce diabetes distress (M1.9). Psychological interventions are recommended in addition to usual care, rather than usual care alone, for adults with type 1 diabetes (M1.1). It is difficult to recommend psychoeducational, educational or peer support interventions as effective strategies to reduce diabetes distress (M1.2-1.4). Similarly, the evidence does not support substituting one type of psychosocial intervention for another (M1.5-1.7), which may support the need for nuanced, person-centred care, tailored to individual needs, priorities and preferences. Taken together, these

recommendations show that while some strategies – especially psychological intervention and CGM – are likely to be effective for reducing diabetes distress in adults with type 1 diabetes, many commonly considered interventions lack a robust evidence base, reinforcing the importance of ongoing research and individualised, holistic clinical care.

Among adults with type 2 diabetes, several psychosocial and educational interventions may help to reduce diabetes distress. Overall, however, the quality of the evidence base remains low to very low, suggesting that the recommendations need to be considered with some caution. Psychological, psychoeducational and educational interventions offer benefits for reducing diabetes distress, when added to usual care, rather than usual care alone (M2.1-2.3). Psychological and psychoeducational interventions may be used interchangeably, as may psychological and educational interventions (M2.5-2.6), suggesting that person-centred approaches can be considered without compromising effective intervention. There is some indication that psychoeducational interventions may offer advantages over purely educational interventions (M2.7). Educational interventions appear to be preferable to peer support (M2.8), suggesting that structured information-giving by health professionals may reduce diabetes distress more than informal discussions with others who have the same condition. Peer support alone is not recommended (M2.4), due to insufficient evidence of effectiveness. Unlike in type 1 diabetes, there is no consistent evidence that CGM reduces diabetes distress among adults with type 2 diabetes (M2.9), which may reflect differences in management needs and day-to-day burden between the two conditions. Overall, these GRADE recommendations emphasise the value of integrating psychological and educational strategies into routine care to support adults with type 2 diabetes experiencing diabetes distress. They also highlight the pressing need for stronger, higher-quality studies to guide future practice with greater certainty.

A key strength of this guideline is its robust foundation in both evidence and lived experience. The inclusion of people living with diabetes on the GDP ensured that the recommendations reflect real-world needs and priorities. The use of the GRADE methodology and the commissioning of a *de novo* systematic review of RCTs to provide the evidence to inform the management recommendations were critical to ensuring the credibility and applicability of the recommendations. By drawing on findings from realist reviews to formulate Good Practice Statements for the assessment of diabetes distress, the GDP recognised the value of conceptual, observational and experiential evidence, rather than RCTs, for informing some aspects of clinical care.

The guideline highlights the diversity of interventions for supporting people experiencing diabetes distress, including psychological, psychoeducational, and educational approaches, but the evidence base remains limited in several areas. Many recommendations are conditional and based on low or very low certainty of evidence. In

part, this reflects the inherently, self-report nature of diabetes distress as the outcome of interest, but it also reflects the need for further high-quality research. In particular, there is a lack of studies in which diabetes distress is considered the primary endpoint, a lack of head-to-head comparisons between intervention types, limited data on long-term outcomes, and insufficient evidence on the impact of interventions in underrepresented populations and healthcare settings.

An important limitation of the guideline is related to the scope of the evidence base for interventions that are not primarily psychological or psychoeducational. As many of these studies did not focus specifically on diabetes distress, reporting of this outcome was inconsistent or only available in supplementary materials. Consequently, the search strategy may have missed studies reporting diabetes distress as a secondary outcome. Further research that reports diabetes distress findings is needed.

Implementation of the guideline will require a concerted effort across healthcare systems. Barriers may include limited time during consultations, lack of healthcare professional training, and insufficient access to mental health services to support referrals where needed. However, facilitators may include a growing awareness of the importance of mental health, person-centred care, and the availability of validated assessment tools. The guideline provides a foundation for professional training, service development, and policy advocacy to ensure that diabetes distress is no longer overlooked in diabetes care.

In conclusion, this guideline offers a timely and essential framework for addressing diabetes distress. By embedding emotional support into routine care, it has the potential to improve both the experiences and outcomes of people living with diabetes. Continued research, investment in implementation, and commitment to person-centred care will be critical to realising the full impact of the EASD's first clinical guideline on the assessment and management of diabetes distress in adults with type 1 diabetes and type 2 diabetes.

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Data availability

All data extracted and analysed for the clinical practice recommendations of this guideline are available via Supplementary Material. These data were based on systematic and realist reviews. Contact the lead authors of those reviews for further access to additional data. For the systematic review which informed the management questions, contact Associate Professor Femke Rutters (email: rutters@amsterdamumc.nl). For the realist reviews which informed the assessment questions, contact Professor Jackie Sturt (email: jackie.sturt@kcl.ac.uk).

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The development of this clinical guideline was sponsored and funded by the EASD. The topic for the guidelines was selected by the Guideline Oversight Committee following a survey of the EASD membership. The Guideline Oversight Committee appointed the GDP co-chairs and members. It ensured that the conflicts of interest of the GDP were scrutinised and that the GDP following the standard operating procedure during the development of the guideline. It oversaw the peer review process of the guideline. The EASD office team ensured the smooth operation of the process by coordinating meetings, distributing materials, facilitating communication between parties involved, and record-keeping. The EASD had no role in the formulation of the clinical questions or recommendations or the writing of this document. Manuela Meireles provided support with the referencing of this guideline.

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Authors' relationships and activities

Jane Speight has served on Advisory Boards for Insulet, Sanofi and Vertex, for which her research centre (the Australian Centre for Behavioural Research in Diabetes) has received honoraria. Norbert Hermanns has received Advisory Board fees from Abbott Diabetes Care and Dexcom and honoraria for lectures from Abbott Diabetes Care, Roche Diagnostics and Sanofi. Walther Jensen declares no conflict of interest. Karin Kanc declares no conflict of interest. Thomas Karagiannis received financial reimbursement from the EASD for his contribution as methodologist for this guideline, and declares no conflicts of interest. Michelle Law declares no conflict of interest. Andreia Mocan declares no conflict of interest. Femke Rutters received financial reimbursement from the EASD for execution of the systematic review and meta-analyses, which was commissioned and funded by the EASD to support the work of the Guideline Development Panel. Jackie Sturt was a member of the Novo Nordisk Foundation Global Diabetes Forum between 2024-25 during which in person meeting attendance was supported. Francesco Zaccardi received financial reimbursement from the EASD for his contribution as methodologist for this guideline, and declares no conflicts of interest. Richard Holt has received honoraria for speaker engagements from Boehringer-Ingelheim, Eli Lilly, Encore, Liberum, Novo Nordisk and ROVI Pharma and consultancy fees from SPOTLIGHT-AQ.

Authors' roles and contributions

The Guideline Development Panel (GDP) comprised: Jane Speight (Co-Chair), Richard Holt (Co-Chair; Co-Chair of the EASD Guideline Oversight Committee), Norbert Hermanns, Walther Jensen, Karin Kanc, Thomas Karagiannis, Michelle Law, Andreia Mocan, Jackie Sturt, Francesco Zaccardi.

Speight and Holt conceived the topic for the guideline and convened the GDP. Karagiannis and Zaccardi advised the GDP on all the methodology for developing the GRADE-based recommendations and conducted the GRADE assessments on the basis of the systematic review. Sturt led the D-stress research team to contribute realist review evidence. GDP members undertook GRADE training and contributed to the development of clinical questions, and the protocol of the systematic reviews and reviewed the realist review evidence.

Femke Rutters led the systematic review and meta-analyses, which was commissioned and funded by the EASD to support the work of the Guideline Development Panel.

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Supplementary materials

Supplementary Table 1: Guideline Development Panel members

Guideline Panel Member	*Contribution*	*Discipline*	*Position, Affiliation*
Norbert Hermanns	GDP member	Psychologist	Research Institute of the Diabetes Academy Mergentheim (FIDAM), Department of Clinical Psychology and Psychotherapy, University of Bamberg, Bamberg, Germany
Richard Holt	GDP Co-Chair, GOC Chair	Academic physician with special interest in diabetes	Professor in Diabetes and Endocrinology, Human Development and Health, Faculty of Medicine, University of Southampton, Southampton UK Honorary Consultant Physician, University Hospital Southampton NHS Foundation Trust, Southampton, UK
Walther Jensen	GDP member	Diabetes advocate	
Karin Kanc	GDP member	Internal medicine / diabetology; Psychotherapy	jazindiabetes (Diabetes & Me), Diabetes Centre, Ljubljana Slovenia PsychoSocial Aspects of Diabetes (PSAD) Study Group; International Integrative Association of Psychotherapy (IIPA)
Thomas Karagiannis	GDP member, Methodologist	Evidence-based medicine, internal medicine	Clinical Research and Evidence-Based Medicine Unit, Second Medical Department, Aristotle University of Thessaloniki, Thessaloniki, Greece
Michelle Law	GDP member	Diabetes advocate	Honorary Professor, Faculty of Health and Life Sciences, University of Exeter
Andreia Mocan	GDP member	Clinical psychology; psychotherapy	Center for Diabetes, Nutrition and Metabolic Diseases, Emergency Clinical County Hospital Cluj-Napoca, Romania PsychoSocial Aspects of Diabetes (PSAD) Study Group
Jane Speight	GDP Co-Chair	Health psychology, behavioural science	Chair, PsychoSocial Aspects of Diabetes (PSAD) Study Group; Foundation Director, The Australian Centre for Behavioural Research in Diabetes, Diabetes Victoria and Deakin University, Melbourne, Australia
Jackie Sturt	GDP member	Nursing, behavioural science	Vice Chair, PsychoSocial Aspects of Diabetes (PSAD) Study Group;

Guideline Panel Member	*Contribution*	*Discipline*	*Position, Affiliation*
			Professor of Behavioural Medicine in Nursing and Head of Research Division, Care in Long-term Conditions, Florence Nightingale Faculty of Nursing, Midwifery and Palliative Care, King's College London. UK
Francesco Zaccardi	GDP member, Methodologist	Evidence-based medicine, internal medicine	Associate Professor Clinical Epidemiology and Health Data Science, Diabetes Research Centre, University of Leicester, Leicester UK

2269 GDP: Guideline Development Panel; GOC: Guideline Oversight Committee

Supplementary material A: Evidence Synthesis report

Supplementary material B: Bridging the evidence from the rapid realist review concepts to the Good Practice Statements.

Supplementary material C: GRADE Evidence Profiles for the management clinical questions

Supplementary material D: RIGHT checklist

Supplementary material E: AGREE II score sheet

Supplementary material F: GRADE evidence to decision (EtD) frameworks for the management clinical questions