

Insulin initiation: The triage system

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Abstract

Insulin is an effective glucose lowering agent and key component of effective diabetes management. However, prescription of insulin is faced with inertia as well as resistance. The barriers exist both at level of provider as well as patient. Here, we discuss a model, to overcome these barriers in a patient friendly and time effective way.

Keywords: Diabetes, Insulin triage, Barrier, Psychosocial, Insulin.

Introduction

Insulin is a frequently prescribed drug in diabetes practice. It is the most effective glucose-lowering agent and insulin replacement therapy and a key component of effective diabetes management over the course of the disease.¹ Few drugs can claim to share its advantages: availability in a multitude of preparations, fixed ratio combinations and delivery devices, lack of side effects (if used prudently); and a proven ability to save lives.² Few other drugs, however, face the same resistance that insulin does when it is prescribed.³ A multitude of reasons are put forth to explain inertia (at best) and resistance (at worst) to insulin.^{4,5}

These barriers to acceptance of insulin exist on both sides of the patient-provider bridge.⁴ While persons with diabetes may initially view insulin as an unwelcome guest, physicians may be reluctant to prescribe it because of the time it takes to do so.⁶

Though writing a prescription of oral antidiabetic drugs and insulin may theoretically take the same time, advice to take insulin comes with a number of responsibilities. These responsibilities include a bidirectional learning process, which takes time to complete. Various aspects of motivation, counselling and education have to be addressed before a person with diabetes becomes capable of taking insulin safely. While there may be reluctance on part of the physician or other members of the diabetes care team to spend this time, more often

than not, there is no time.

Professionals in busy clinics cite high patient loads, the need to address multiple clinical challenges apart from outdoor diabetes care, and lack of supporting staff, as reasons to delay discussion about insulin.⁶ Some also complain of compassion fatigue or frustration while dealing with patients who do not accept proposed therapeutic interventions, in spite of them being clinically relevant.

The following discussion (and Table) describe a simple Triage System, based upon the biopsychosocial model of health,⁷ which helps a busy health care provider tailor insulin-related interventions to each patient who requires the drug.

Applicability of this model assumes competence in assessing the clinical (or biological) severity of disease, in understanding Prochaska's theory of motivation and in picking up verbal and non-verbal cues.⁸

The aim of this triage is to help busy clinicians make most efficient use of their time, without compromising the safety and well being of persons with diabetes who come to them for care. It understands that diabetes care is a dynamic, ongoing process which is not limited to just one patient-provider contact.

The Concept of Triage

Triage is a concept originally used in health care settings in war zones, to identify injured personnel who will benefit from immediate medical attention.

In the diabetes clinic, the triage methodology uses biological, psychological and social aspects of the patient's health to inform or decide the clinician's response. This method allows the clinician to plan a holistic biopsychosocial intervention related to insulin, and execute it with maximal efficiency and minimal frustration.

Assessment

The decision to prescribe insulin begins with a clinical assessment, based upon history taking physical examination, and relevant investigations. The HbA1c value in isolation does not determine an insulin

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Table: Insulin Initiation: The Bio-Psychosocial Triage System.

| Triage assessment | Negative | Neutral | Positive |
|---------------------------------|--|--|---|
| Clinical | | | |
| Severity of diabetes | No immediate threat to health | Catabolic/asthenic symptoms | Limb/sight/organ/life-threatening |
| Attitudes | | | |
| Perceived severity of diabetes | No perceived threat to health | Negative impact on personal/professional health | Perceived threat to limb/sight/organ/life |
| Perception of insulin | Lack of efficacy/safety/tolerability perceived addiction | Fear of inability to cope/ perceived intrusion in life style | Positive |
| Motivation Stage | Pre contemplation | Contemplation | Action |
| Response to insulin talk Verbal | 'Death before drug' negativity | Curiosity | Acceptance |
| Non verbal (body language) | Negative | Neutral | Positive |
| Response | | | |
| Initial counselling | Build trust; explore common ground | Encourage discussion; Practical demonstration | Practical demonstration |
| Support system | Other patients on insulin; Examples of famous diabetics; Convince family/friends | Analogy building; Convince family /friends | Paramedical staff |
| Changing insulin perception | Evoke change talk; Highlight lack of "addiction" | Highlight safety/tolerability/ease of use | Reinforcement |
| Choice of cues (motivators) | External cues | Laboratory | Internal cues; laboratory cues |
| Endpoint | Shift to contemplation; finite therapeutic trial of ohas | Quick action; frequent follow up. Finite trial of insulin | Immediate action: Insulin |
| Choice of insulin regime | As accepted by patient | As agreed by patient and physician | As dictated by clinical scenario |

prescription. If diabetes is severe enough to be limb/sight/organ or life- threatening, more time must be spent on patient motivation. If on the other hand, the physician perceives no immediate threat to the patient-health, he or she may introduce the idea of insulin initiation briefly, before moving on to other matters.

A psychosocial assessment is also necessary. Attitudes of the patient towards severity of diabetes, his or her perception of insulin, and the motivation stage he or she is in must be noted. These will decide whether to categorize the patient as positive, neutral or negative, with regards to insulin, Dynamic assessment of the patient must include observation of his or her verbal as well as non-verbal response to what has been termed 'insulin talk'.

The physician begins by broaching the concept of insulin therapy in an open-ended, non-committal, neutral manner ("What if we began insulin?" "Your reports suggest you may require some insulin"). The verbal language, and body language (physical behaviour) used by the patient easily give the astute clinicians a lead as to what strategy to follow.

Grading

An overall impression of the patient is created by the clinical and psychosocial assessment. Most persons can easily be graded as positive (absolute indication for insulin and/or favourable attitude towards insulin),

neutral (insulin is indicated, but there is no absolute contraindication to alternative oral drugs, and /or patient is neutral towards insulin), or negative (no absolute indication for insulin, and / or non-receptive attitude towards insulin).

Response

Depending upon the grading given, the clinicians can plan the most effective (and time- efficient) strategy to initiate insulin therapy. Patients in the positive category may need lesser time, and can be supported by paramedical staff. Reinforcement of positive behaviour should be done, using symptoms (internal cues) and abnormal laboratory reports (eg, HbA1c, ketonuria, deranged renal function tests) to hasten insulin acceptance. Insulin should be started immediately, with the choice of regime (basal- bolus vs. premixed vs basal) being dictated by the clinical scenario.

If a sick person with organ or life- threatening diabetes does not perceive himself or herself to be ill, every effort should be made to explain the gravity of the situation, and bring the 'index of perceived severity' in line with the 'index of severity'.

For patients in the neutral category, one should encourage open discussion about the pros and cons of insulin, using analogy- building, practical demonstration, and laboratory cues (abnormal lab reports) as motivational tools. Frequent, regular follow up should be

planned to encourage insulin acceptance. A finite trial of insulin may be agreed upon, as a starting step towards long-term acceptance. One may negotiate the insulin regime, and initiate a therapy with the number of injections per day being decided by a process of shared decision making.

Patients in the 'negative' category usually resist insulin, and are not amenable to behaviour modification within the course of one clinic consultation. The aim should be to continue to engage them over a period of time, explore common ground, build trust, and gradually convince them and their family/ friends about the benefits of insulin. The health care professional should use external cues (peer examples) to shift such patients to contemplating and shifting to insulin, while trying a finite therapeutic trial of oral hypo-glycaemic agents. The choice of insulin regime, i.e., number of injections per day, may be driven by the patient initially.

Caveats and Caution

This algorithm for triage of patients is experience - based, rather than founded on evidence. However, it follows the precepts of logical empiricism: it is logical in its approach, and it uses an empirical or experiential methodology that clinicians are familiar with. It does not use a scoring system to place patients in their categories; neither are the three categorizations water-tight compartments. It is easily possible for an individual patient to exhibit characteristics of more than one grade. The algorithm is highly operator-dependent, as it depends upon the clinical and social acumen of the treating physician to assess the patient. But then, all clinical medicine is operator- dependent. The algorithm allows for dynamism: it is conceivable that an individual with diabetes "changes categories" with time, or by changing the treating doctor.

Use of this triage system should in no way be perceived as abdication of responsibility towards the patient's health and well being. In all clinical situations, the patient's well

being is paramount. In case of discrepancy, biological factors should be given precedence over psychosocial issues while deciding whether or how to initiate insulin. Shared decision making and patient empowerment cannot be taken as excuses to withhold insulin from a person with life threatening or organ threatening diabetes.

Conclusion

The Triage algorithm is based upon an understanding of the bio psychosocial model of disease, motivational theories, and clinical diabetology. It allows busy clinicians to assess their patients in a holistic, comprehensive manner, and plan appropriate therapy for them. Use of this tool, unvalidated so far, should help improve the way in which we deal with our patients, while improving acceptance of insulin, and ensuring efficient use of limited resources at our disposal.

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