Choosing Glucose-lowering Therapy: A Collaborative Choice Model

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ABSTRACT

Diabetes care is challenging, and the increasing number of available therapeutic options has made it even more complex. Moreover, with an increasing prevalence across the world, it needs to be managed right from the primary care level to a quaternary care hospital. This calls for an easy-to-use algorithm that can be used by a general practitioner, who is often the first contact of a patient to manage diabetes in many countries. There are multiple models to assist in choice of pharmacotherapy, and these have evolved over time. We propose a user-friendly collaborative choice, as an aid to clinical decision-making. This alliterative framework supplements and strengthens existing guidance, by creating a comprehensive, yet simple, thought process for the diabetes care professional.

Keywords: Pharmacotherapy, person-centered, type 2 diabetes

There are multiple algorithms and guides to choosing glucose-lowering therapy in persons with type 2 diabetes.^{1,2} Continued evolution of internationally accepted recommendations underscores the dynamic and flexible nature of diabetes practice. It is challenging, however, to condense a complex syndrome into just one or two tables, figures or graphs. This is evident in conventional and current attempts at 'sanitizing' choice of therapy.

While earlier models were criticized for³ being glucocentric, modern rubrics have become cardiocentric and are equally tubular in their scope. It is heartening to note, however, that safety and economic considerations are now being highlighted in international guidelines.

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A COLLABORATIVE CHOICE MODEL

We have earlier proposed vasocentric and metabolic fulcrum-based frameworks^{4,5} to help in clinical decisionmaking in diabetes. Classification of glucose-lowering therapies have also been crafted,^{6,7} to make them easier to understand. We now share a chart, which simplifies the thought process behind choice of glucose-lowering therapy. The user-friendly format lists 4 domains, all alliteratively named, which must be kept in mind, while deciding treatment. The word 'collaborative' is used in the title to remind ourselves that the person living with diabetes is an active participant in his/her their treatment.

The hierarchy of the "C chart" (choice chart), as we term it, corresponds broadly to the conventional order of patient evaluation (history taking, examination, investigations), and assesses both biomedical and psychosocial issues. It retains person-centricity and pragmatism in its ethos, by considering habits, challenges/constraints and also analyzing the diabetes care ecosystem that he/she/they live in.

Table 1 presents the model that can act as a tool in clinical practice. This chart supplements existing guidance, and makes diabetes care easier, more efficient and perhaps more enjoyable, for practitioners and students alike.

SUMMARY

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The C chart for collaborative choice is a simple model to remind a treating clinician about the different

Table 1. Glucose-lowering Therapy in Type 2 Diabetes:The C Chart for Collaborative Choice

Domains	Dos	Dont's
Complaints and concerns	Acknowledge complaints and concerns	Trivialize complaints and concerns
	Endeavor to address them	Ignore them while choosing treatment
Complication and comorbidities	Institute appropriate therapy Refer if indicated	Ignore red flags Create iatrogenic complications with inappropriate therapy
Concomitant medication and culinary pattern	Take detailed history Optimize diet and lifestyle	Neglect to ask about complementary therapy
		Use regimes that are discordant with diet
Cost constraints and care ecosystem	Be mindful of bio- psychosocial health Be pragmatic in delivery of care	Take unilateral decisions Be dismissive of patient's reality
	20	penerice reality

domains of patient characteristics that need to be kept in consideration before finalizing the prescription. This model can be applied across different types of diabetes, ethnicities and socioeconomic status of people living with diabetes.

REFERENCES

- 1. Kalra S, Dhar M, Afsana F, Aggarwal P, Aye TT, Bantwal G, et al. Asian Best practices for Care of Diabetes in Elderly (ABCDE). Rev Diabet Stud. 2022;18(2):100-34.
- Aswathy S, Unnikrishnan AG, Kalra S. Effective management of type 2 DM in India: looking at lowcost adjunctive therapy. Indian J Endocrinol Metab. 2013;17(1):149-52.
- 3. Punyani H, Lathia T, Kalra S. Approach to glucose control: The SECURE model. J Pak Med Assoc. 2021;71(1(A)):168-9.
- Kalra S, Bhattacharya S, Kapoor N. Glucagon-like peptide 1 receptor agonists (GLP1RA) and sodiumglucose co-transporter-2 inhibitors (SGLT2i): making a pragmatic choice in diabetes management. J Pak Med Assoc. 2022;72(5):989-90.
- 5. Kalra S, Gupta Y. Choosing injectable therapy: the metabolic fulcrum. J Pak Med Assoc. 2016;66(7):908-9.
- Kalra S, Shaikh S, Priya G, Baruah MP, Verma A, Das AK, et al. Individualizing time-in-range goals in management of diabetes mellitus and role of insulin: clinical insights from a multinational panel. Diabetes Ther. 2021;12(2): 465-85.
- Kalra S, Bantwal G, Sahay RK, Bhattacharya S, Baruah MP, Sheikh S, et al. Incorporating Integrated Personalised Diabetes Management (iPDM) in treatment strategy: a pragmatic approach. Indian J Endocrinol Metab. 2022;26(2):106-10.

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Efficacy of Povidone-Iodine Nasal and Oral Antiseptic Preparations against SARS-CoV-2

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) primarily transmits amongst humans through aerosolization of respiratory droplets. Transmission through contact with contaminated surfaces and other fomites has also been documented. Consistent and diligent antisepsis of surfaces and the skin can prevent this communicable COVID-19.

A recent study evaluated nasal and oral antiseptic formulations of povidone-iodine (PVP-I) (nasal antiseptic formulations and oral rinse antiseptic formulations from 1% to 5% concentrations) for the virucidal activity against SARS-CoV-2. Here, the virus was directly exposed to the test compound for 60 seconds, compounds were then neutralized and the surviving virus was quantified.

The results revealed that all concentrations of nasal antiseptics and oral rinse antiseptics used completely inactivated the SARS-CoV-2.

It was inferred that oral and nasal PVP-I antiseptic solutions are effective at inactivating the SARS-CoV-2 at a variety of concentrations after an only 60-second exposure. These formulations can aid in diminishing transmission of the SARS-CoV-2 with usage for oral decontamination, nasal decontamination or surface antisepsis.

(Source: Pelletier JS, et al. Efficacy of povidone-iodine nasal and oral antiseptic preparations against severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2). Ear Nose Throat J. 2021;100(2_suppl):192S-196S.)