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RSSDI-ESI Clinical Practice Recommendations 2020

RSSDI



Research Society for the Study of Diabetes in India (RSSDI) is the largest organization of diabetes health care professionals and researchers in Asia.

The society is committed to expand academic and research activity and holding scientific meetings and providing training facilities for research in the country.

Recently its 47th Annual Meeting was concluded from Nov 07 - 10, 2019 at Jaipur, Rajasthan, India.

Management of Type 2 Diabetes Mellitus *Indian Perspective*

Management of diabetes, a disease which is assuming epidemic proportions, remains a challenge despite the availability of numerous guidelines. Type 2 diabetes mellitus (T2DM) is a progressive metabolic disorder characterized by abnormal insulin secretion and utilization. Indian patients with T2DM have distinctive clinical and biochemical characteristics, which makes them the so-called Asian Indian Phenotype.

Numerous international and national guidelines are in place for the management of T2DM. Adopting country-specific guidelines improves treatment outcomes in diabetes. **RSSDI** along with **Endocrine Society of India (ESI)** therefore unveiled the clinical practice recommendations for the management of T2DM 2020.

The objective of this updated clinical practice recommendations is to

provide evidence-based recommendations for the treatment of patients with T2DM. It is expected that these recommendations will help define practically implementable best practices not only for the management of T2DM but also help in timely prevention of acute and chronic complications of diabetes by primary care physicians across India.

Some of the key pragmatic points are considered in this issue.

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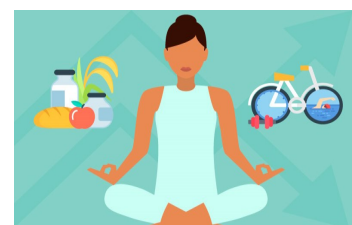
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Medical Nutritional Therapy & Lifestyle Modification: Integral part of T2DM management

- Nutritional chart to be followed in consultation with trained nutritionist and physician/diabetologist.
- Consumption of simple carbohydrates, sugar and fried food should be reduced.
- Higher consumption of complex carbohydrates along with high protein intake are recommended.
- Salt intake should be in moderation (<5g/day).
- Increased duration & frequency of physical

activity (min 150 min/week) is encouraged.

- Mass awareness campaign for healthy diet & lifestyle should be conducted.



Oral Antidiabetic Agents: What to Prescribe When?

“Cost and availability of generic therapies to be considered during recommended care.”

- Metformin should be initiated along with lifestyle interventions at the time of diagnosis, unless contraindicated.
- Consider CV/heart failure risk, renal/hepatic risk while deciding therapy.
- **Patient-centric approach:** consider cost & benefit ratio while choosing oral antidiabetic agents (OADs).
- **Tailor made therapy:** based on individual HbA1c target, age, duration of diabetes, comorbidities, cost of therapy, hypoglycemic risk, weight gain and durability.
- If eGFR is between 45-30mL/min/1.73m², reduce dose of **Metformin** by 50%. Stop **Metformin** if eGFR <30.
- **Other options for first line therapy:** SUs, DPP4i, SGLT2i or AGIs, if **Metformin** not tolerated.
- **Dual Therapy:** Should add SU or TZD or SGLT2i or DPP4i or AGI on individual case basis.
- **Triple therapy:** If glucose target is not achieved with 2 agents, start third agents from class other than the two. Can also consider **GLP1 agonist** or **Insulin**.

Condition	Consider
Presence of insulin resistance	Addition of TZDs
Established ASCVD, HF, diabetic kidney disease (DKD), or need weight reduction	SGLT2i
Postprandial hypoglycemic issue	AGI, Glinides or SGLT2i
Elderly with risk of hypoglycemia	DPP4i as alternative to SU

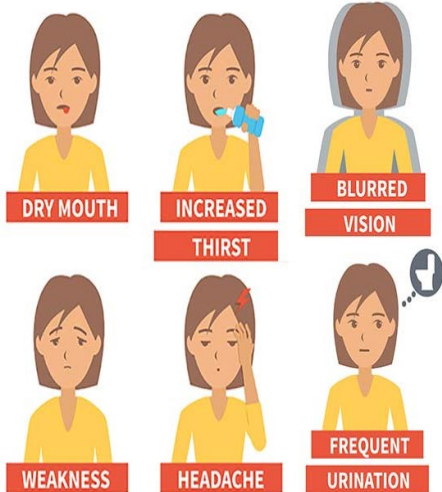
Injectables: An Art to Master



- **Insulin**
- Insulin therapy should be considered in all patients failed to achieve glycemic targets on 3 oral agents.
- Consider initiation when severe symptomatic hyperglycemia or unstable state.
- 3 step protocol is recommended.
- **Initiation:** initiate with once-daily **basal insulin**, once-daily **premixed** or twice-daily **premixed insulin**, either alone or with other OADs.
- **Basal bolus regimen** considered in severe hyperglycemia and in life threatening or organ/limb threatening situations.
- **Analogue insulins** may be preferred over **human insulins** with lower nocturnal hypoglycemia risk.
- **Titration:** healthcare professional may increase dose by 2-4 units (U) every 3 days or biweekly on individual basis without causing hypoglycemia.
- Titrate to control FBG first followed by prandial control.
- **Intensification:** is recommended when target glycemic goal not achieved even after optimal dose titration.
- **GLP-1 analogues**
- Consider **GLP-1 analogues** with proven CV benefit.
- In overweight/obese, can be considered as **2nd line** with Metformin or **first-line** in Metformin intolerant.
- Can be added to insulin if glycemic goals not achieved.

Post Prandial Hyperglycemia: What Should Be The Approach?

HYPERGLYCEMIA



- Target PPG should be 160 mg/dL as long as hypoglycemia is avoided.
- Both non-pharmacological and pharmacological therapies should be considered.
- Diet with low glycemic load is recommended.
- **AGIs** (Acarbose, Miglitol or Voglibose), **DPP4i**, **SGLT2i** or **GLP1** analogues to be considered as first add on to **Metformin**.
- **Glinides** and short acting **SUs** as alternative options.
- **Rapid acting insulin analogues** may be considered over regular insulin when PP hyperglycemia is concern with high risk of hypoglycemia.
- Self monitoring of blood glucose (**SMBG**) should be considered for monitoring PP glycemia.
- Efficacy of treatment regimens should be monitored frequently to guide the therapy towards achieving PP glycemia targets.

Hypoglycemia: Watch out !!!

- All patients with risk of hypoglycemia should be enquired about symptomatic and asymptomatic hypoglycemia at each visit.
- Patient & family members should be well educated about identification and management of hypoglycemia, especially night time hypoglycemia.
- It should be strictly managed and monitored in situations like elderly, pregnancy, fasting, metabolic disorders and for patients on **Insulin**, **SUs** or **Meglitinides**.
- **In conscious hypoglycemics:** give oral glucose (15-20 g). Repeat treatment if SMBG shows continued hypoglycemia after 15 min. Patient should consume a meal once SMBG returns to normal to prevent recurrence of hypos.
- **In unconscious hypoglycemics:** **IM Glucagon** or **IV Glucose** preferred. Repeat IM or SC Glucagon dose of 0.5 mg if no symptomatic improvement. **Glucagon** to be avoided in **SU** induced hypoglycemia.

HYPOGLYCEMIA



Diabetic Kidney Disease: The Progress, We Don't Want.

- Kidney function should be assessed at diagnosis and annually (urine test for albuminuria, measure Sr. creatinine and calculate eGFR).
- Early morning first void (mid-stream) spot specimen preferred for assessing albuminuria/proteinuria.
- Control hyperglycemia, exclude urinary or systemic infections or pyrexia and avoid strenuous exercise before testing for albuminuria.
- If urinary albumin to creatinine ratio (ACR) is raised (>30mg/g), repeat twice over following 4 months.
- DKD is diagnosed on the basis of **raised urine/protein or reduced eGFR** (<60mL/min/1.73m²) calculated by Chronic Kidney Disease Epidemiology Collaboration (**CKD-EPI**) equation (preferred formula).
- For patients <18 years of age (infants, toddlers, children and teens) the Bedside Schwartz equation should be used.
- **Management:** high risk individuals (hypertensives, DM >3-5 yrs, family h/o nephropathy/HF/ASCVD) must get preference for **SGLT2i**.
- Aim for BP ≤130/80 mmHg. Consider using **ACE inhibitors** or **ARBs**.
- Dietary modification with low salt and reduced protein intake.
- Consider referral to nephrologists when uncertainty about the etiology of kidney disease or difficult management issue (stress, obesity, high uric acid, UTIs, anemia)

(eGFR calculator link- https://www.kidney.org/professionals/kdoqi/gfr_calculator)

Cardiovascular risk: Knowing Diabetes by Heart

- CV risk factors (dyslipidemia, hypertension, smoking status, family history, albuminuria, BMI, hyperuricemia, current or previous CVD events) should be assessed in all patients at diagnosis and annually.
- UKPDS risk engine and QRISK3 are simple and effective tools for identifying and predicting CVD risks.
- Patients with diabetes and CVD risk should follow the ABC treatment goals.
 - **A (A1c):** <7%
 - **B (BP):** <130/80mmHg
 - **C (Cholesterol – LDL):** <100 mg/dL
- Glucose lowering drugs that are proven CV safe and beneficial are recommended.
- **SGLT2i** and **GLP1 RA** are well approved by various regulatory authorities for CV risk reductions apart from their glucose lowering ability.
- Weight control should be important consideration while choosing therapy.
- Hypertension and dyslipidemia should be managed properly with appropriate agents considering risk factors, age and comorbidities.



(QRISK3 calculator link- <https://qrisk.org/three/index.php>)

For any scientific queries on the above topic

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