STANDARD TREATMENT WORKFLOW (STW)

Diabetic Retinopathy (DR)

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Tondon R, et al.: Diabetic Retinopathy (DR)

Standard Treatment Workflow (STW)
DIABETIC RETINOPATHY (DR)

ICD-10-E11.31

KEY POINTS

Diabetic retinopathy can be asymptomatic in early as well as advanced stages.

Every newly diagnosed diabetic should be screened for retinopathy at the point of detection of diabetes and thereafter annually or more frequently as required by the retinopathy grade.

HISTORY

- Duration of diabetes
- Compliance with treatment and blood sugar monitoring
- Any visual symptoms
- Any other systemic illness

PRELIMINARY SCREENING

Slit lamp biomicroscopy (retinal exam), ultrasound B-scan (when fundus not visible).

EXAMINATION

Vision, refraction, ophthalmic examination including pupillary reflexes, OCT, digital fundus examination with a direct/indirect opthalmoscope.

DEFINITIVE DIAGNOSIS

ESSENTIAL

- Slit lamp biomicroscopy (retinal exam) ultrasound B-scan

DESIABLE

- Indirect ophthalmoscopy
- Fundus photography

OPTIONAL

- OCT, FFA, OCTA if indicated

TABLE 1: CLASSIFICATION OF DIABETIC RETINOPATHY

<table>
<thead>
<tr>
<th>GRADE</th>
<th>EXTERNAL</th>
<th>RETINAL</th>
<th>HISTORICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>No apparent retinopathy</td>
<td>No Abnormalities</td>
<td>Referral to retinal specialist</td>
<td>1 year</td>
</tr>
<tr>
<td>Mild non proliferative</td>
<td>Micro aneurysms only</td>
<td>Referral to retinal specialist</td>
<td></td>
</tr>
<tr>
<td>Moderate non proliferative</td>
<td>More than just micro aneurysms but less than severe non proliferative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe non proliferative</td>
<td>Micro and/or retinal capillary non-perfusion, micro aneurysms, cotton wool spots, intraretinal microvascular abnormalities (IRMA) and/or epiretinal or subclinical maculopathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proliferative</td>
<td>Severe non proliferative D and/or one of the following: exudates, neovascularisation; without vitreous haemorrhage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For non ophthalmologist, any DR should be referred to retinal specialist.

INDICATIONS FOR URGENT REFERRAL

- Non - dissection pupil
- Flared disc margins
- No view of fundus
- Absent Pupil Reflex

TABLE 2: CLASSIFICATION OF DIABETIC MACULAR EDEMA

<table>
<thead>
<tr>
<th>GRADE</th>
<th>EXTERNAL</th>
<th>INTERNAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinically significant DME</td>
<td>No retinal thickening or hard exudates in posterior pole</td>
<td>Referral to retinal specialist</td>
</tr>
<tr>
<td>edema</td>
<td>Retinal thickening or hard exudates in posterior pole but outside the central 1000 μm of the macula</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retinal thickening or hard exudates in the central 1000 μm of the macula but not involving the fovea</td>
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<tr>
<td></td>
<td>Retinal thickening or hard exudates involving the foveal center</td>
<td></td>
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</table>

MANAGEMENT

PNC/PRIMARY LEVEL

- Detailed history & examination
- Refraction for BCVA
- Preliminary diagnosis
- Referral to Ophthalmologist (as per Table No.1 and 2)
- Counselling regarding metabolic control
- Preventive advice, counseling and regular follow up

TERNA LEVEL

- Refraction for BCVA
- Detailed work up including indirect ophthalmoscopy
- Diagnosis, classify, advice (as per Table No.1 and 2)
- Point to point guided referral
- Ensure follow up and compliance
- Counselling regarding metabolic control and systemic comorbidities (hypertension, and nephropathy)

QUALITY ASSESSMENT PARAMETERS

- Patient identifier
- Gender
- Age
- Diabetes status
- Score of DR
- Pre-operative vision
- Diagnosis
- Follow-up vision

ABBREVIATIONS

- BCVA: Best corrected visual acuity
- DME: Diabetic macular edema
- FFA: Fluorescein angiography
- IOP: Intraocular pressure
- OCT: Optical coherence tomography
- OCTA: Optical coherence tomography angiography

REFERENCE


KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES

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