STANDARD TREATMENT WORKFLOW (STW)

Cataract

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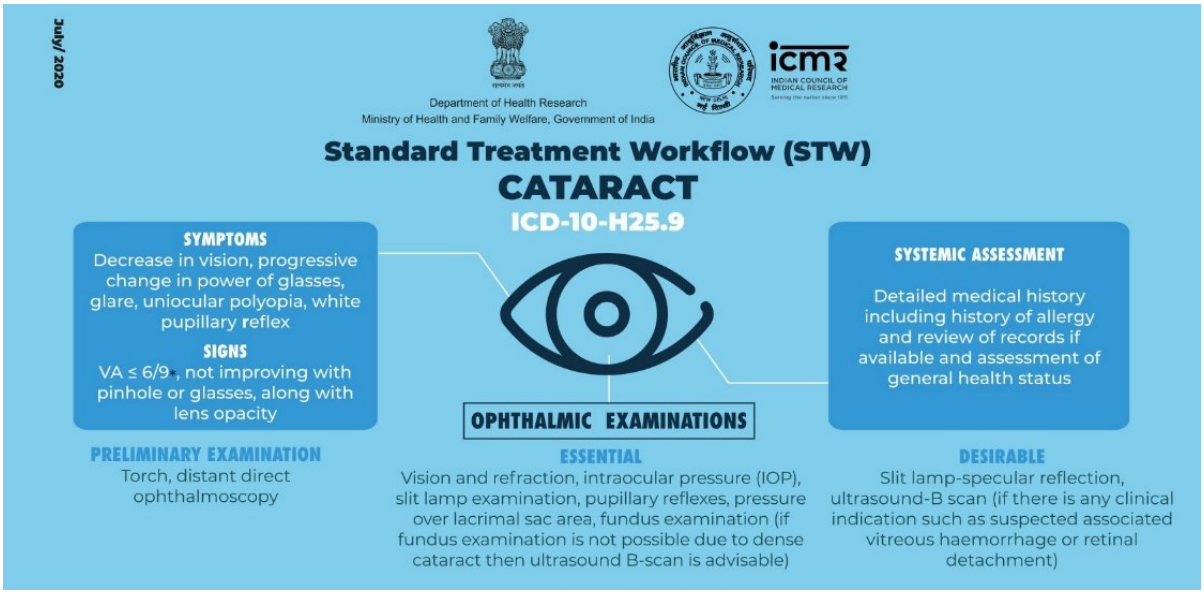

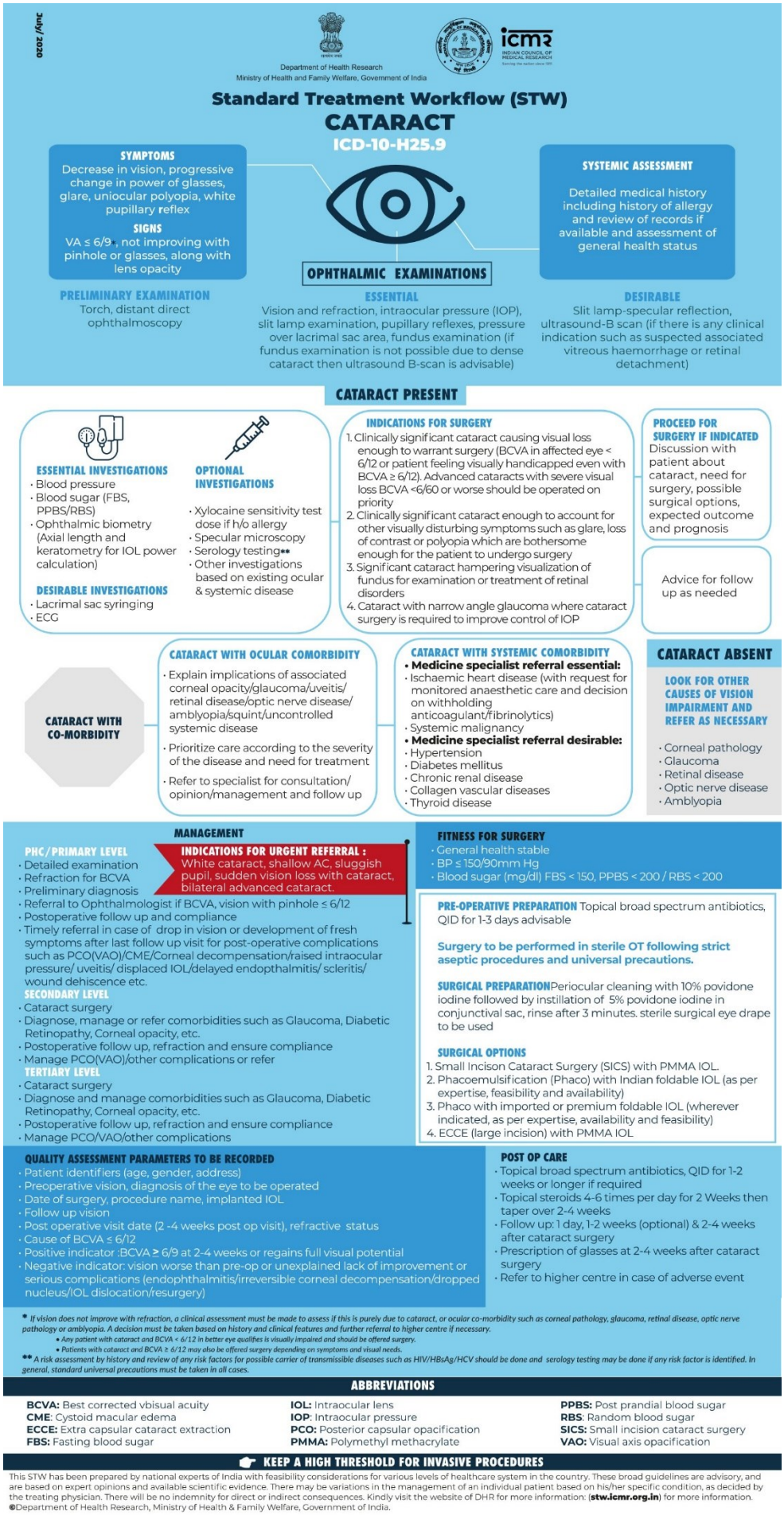
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Standard Treatment Workflow (STW)
CATARACT
ICD-10-H25.9
SYMPTOMS
Decrease in vision, progressive change in power of glasses, glare, uniocular polyopia, white pupillary reflex
SIGNS
VA ≤ 6/9, not improving with pinhole or glasses, along with lens opacity
SYSTEMIC ASSESSMENT
Detailed medical history including history of allergy and review of records if available and assessment of general health status
PRELIMINARY EXAMINATION
Torch, distant direct ophthalmoscopy
OPHTHALMIC EXAMINATIONS
ESSENTIAL
Vision and refraction, intraocular pressure (IOP), slit lamp examination, pupillary reflexes, pressure over lacrimal sac area, fundus examination (if fundus examination is not possible due to dense cataract then ultrasound B-scan is advisable)
DESIRABLE
Slit lamp-specular reflection, ultrasound-B scan (if there is any clinical indication such as suspected associated vitreous haemorrhage or retinal detachment)
CATARACT PRESENT
ESSENTIAL INVESTIGATIONS
· Blood pressure
· Blood sugar (FBS, PPBS/RBS)
· Ophthalmic biometry (Axial length and keratometry for IOL power calculation)
DESIRABLE INVESTIGATIONS
· Lacrimal sac syringing
· ECG
OPTIONAL INVESTIGATIONS
· Xylocaine sensitivity test dose if h/o allergy
· Specular microscopy
· Serology testing**
· Other investigations based on existing ocular & systemic disease
INDICATIONS FOR SURGERY
1. Clinically significant cataract causing visual loss enough to warrant surgery (BCVA in affected eye < 6/12 or patient feeling visually handicapped even with BCVA ≥ 6/12). Advanced cataracts with severe visual loss BCVA <6/60 or worse should be operated on priority
2. Clinically significant cataract enough to account for other visually disturbing symptoms such as glare, loss of contrast or polyopia which are bothersome enough for the patient to undergo surgery
3. Significant cataract hampering visualization of fundus for examination or treatment of retinal disorders
4. Cataract with narrow angle glaucoma where cataract surgery is required to improve control of IOP
PROCEED FOR SURGERY IF INDICATED
Discussion with patient about cataract, need for surgery, possible surgical options, expected outcome and prognosis
Advice for follow up as needed
CATARACT WITH CO-MORBIDITY
CATARACT WITH OCULAR COMORBIDITY
· Explain implications of associated corneal opacity/glaucoma/uveitis/ retinal disease/optic nerve disease/ amblyopia/squint/uncontrolled systemic disease
· Prioritize care according to the severity of the disease and need for treatment
· Refer to specialist for consultation/ opinion/management and follow up
CATARACT WITH SYSTEMIC COMORBIDITY
• Medicine specialist referral essential:
· Ischaemic heart disease (with request for monitored anaesthetic care and decision on withholding anticoagulant/fibrinolytics)
· Systemic malignancy
• Medicine specialist referral desirable:
· Hypertension
· Diabetes mellitus
· Chronic renal disease
· Collagen vascular diseases
· Thyroid disease
CATARACT ABSENT
LOOK FOR OTHER CAUSES OF VISION IMPAIRMENT AND REFER AS NECESSARY
· Corneal pathology
· Glaucoma
· Retinal disease
· Optic nerve disease
· Amblyopia
MANAGEMENT
PHC/PRIMARY LEVEL
· Detailed examination
· Refraction for BCVA
· Preliminary diagnosis
· Referral to Ophthalmologist if BCVA, vision with pinhole ≤ 6/12
· Postoperative follow up and compliance
· Timely referral in case of drop in vision or development of fresh symptoms after last follow up visit for post-operative complications such as PCO(VAO)/CME/Corneal decompensation/raised intraocular pressure/ uveitis/ displaced IOL/delayed endopthalmitis/ scleritis/ wound dehiscence etc.
INDICATIONS FOR URGENT REFERRAL : White cataract, shallow AC, sluggish pupil, sudden vision loss with cataract, bilateral advanced cataract.
SECONDARY LEVEL
· Cataract surgery
· Diagnose, manage or refer comorbidities such as Glaucoma, Diabetic Retinopathy, Corneal opacity, etc.
· Postoperative follow up, refraction and ensure compliance
· Manage PCO(VAO)/other complications or refer
TERTIARY LEVEL
· Cataract surgery
· Diagnose and manage comorbidities such as Glaucoma, Diabetic Retinopathy, Corneal opacity, etc.
· Postoperative follow up, refraction and ensure compliance
· Manage PCO/VAO/other complications
FITNESS FOR SURGERY
· General health stable
· BP ≤ 150/90mm Hg
· Blood sugar (mg/dl) FBS < 150, PPBS < 200 / RBS < 200
PRE-OPERATIVE PREPARATION Topical broad spectrum antibiotics, QID for 1-3 days advisable
Surgery to be performed in sterile OT following strict aseptic procedures and universal precautions.
SURGICAL PREPARATIONPeriocular cleaning with 10% povidone iodine followed by instillation of 5% povidone iodine in conjunctival sac, rinse after 3 minutes. sterile surgical eye drape to be used
SURGICAL OPTIONS
1. Small Incison Cataract Surgery (SICS) with PMMA IOL.
2. Phacoemulsification (Phaco) with Indian foldable IOL (as per expertise, feasibility and availability)
3. Phaco with imported or premium foldable IOL (wherever indicated, as per expertise, availability and feasibility)
4. ECCE (large incision) with PMMA IOL
QUALITY ASSESSMENT PARAMETERS TO BE RECORDED
· Patient identifiers (age, gender, address)
· Preoperative vision, diagnosis of the eye to be operated
· Date of surgery, procedure name, implanted IOL
· Follow up vision
· Post operative visit date (2 -4 weeks post op visit), refractive status
· Cause of BCVA ≤ 6/12
· Positive indicator :BCVA ≥ 6/9 at 2-4 weeks or regains full visual potential
· Negative indicator: vision worse than pre-op or unexplained lack of improvement or serious complications (endophthalmitis/irreversible corneal decompensation/dropped nucleus/IOL dislocation/resurgery)
POST OP CARE
· Topical broad spectrum antibiotics, QID for 1-2 weeks or longer if required
· Topical steroids 4-6 times per day for 2 Weeks then taper over 2-4 weeks
· Follow up: 1 day, 1-2 weeks (optional) & 2-4 weeks after cataract surgery
· Prescription of glasses at 2-4 weeks after cataract surgery
· Refer to higher centre in case of adverse event
* If vision does not improve with refraction, a clinical assessment must be made to assess if this is purely due to cataract, or ocular co-morbidity such as corneal pathology, glaucoma, retinal disease, optic nerve pathology or amblyopia. A decision must be taken based on history and clinical features and further referral to higher centre if necessary.
• Any patient with cataract and BCVA < 6/12 in better eye qualifies is visually impaired and should be offered surgery.
• Patients with cataract and BCVA ≥ 6/12 may also be offered surgery depending on symptoms and visual needs.
** A risk assessment by history and review of any risk factors for possible carrier of transmissible diseases such as HIV/HBsAg/HCV should be done and serology testing may be done if any risk factor is identified. In general, standard universal precautions must be taken in all cases.
ABBREVIATIONS
BCVA: Best corrected vbisual acuity
CME: Cystoid macular edema
ECCE: Extra capsular cataract extraction
FBS: Fasting blood sugar
IOL: Intraocular lens
IOP: Intraocular pressure
PCO: Posterior capsular opacification
PMMA: Polymethyl methacrylate
PPBS: Post prandial blood sugar
RBS: Random blood sugar
SICS: Small incision cataract surgery
VAO: Visual axis opacification
KEEP A HIGH THRESHOLD FOR INVASIVE PROCEDURES
This STW has been prepared by national experts of India with feasibility considerations for various levels of healthcare system in the country. These broad guidelines are advisory, and are based on expert opinions and available scientific evidence. There may be variations in the management of an individual patient based on his/her specific condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit the website of DHR for more information: (stw.icmr.org.in) for more information.
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