Examination of the eye (surface and direct ophthalmoscopy)

To begin:

WIPE

- Wash hands
- Introduce self
- Identify patient
- Permission – gain consent for the exam
- Position – seated
- Pain – ask if the patient is in pain
- Privacy – ensure curtains/doors are closed
- Exposure – eyes accessible (remove glasses)

Inspection

End of bed:

- General appearance – see if the patient is alert, orientated, in pain, generally appearing well or unwell
- Any aids – guide dog, stick etc
- Any glasses or contacts evident
- Does the patient require any assistance with navigating the space.

Patient:

Look at	What in particular?	Example of why
Orbit and peri-orbit	Swelling, asymmetry	Swelling could be due to periorbital cellulitis, allergies etc.
	Positioning	Positioning of eyes within their sockets: bulging eyes (proptosis) may be associated with thyroid disease
Eyelids	Eyelid position, swelling, lumps, eyelid margin	Drooping (ptosis) may be associated with third cranial nerve pathology, myasthenia gravis etc.
Eyes	Extra ocular movements	Observe for smooth tracking, and full range of movement
	Pupils	Pupil size and symmetry may be altered due to neurological conditions, intracranial haemorrhage, drugs etc. Check pupillary response to light and accommodation Swinging light test for Relative afferent pupillary defect
	Colour	Colour of the eye (white/pink/red/yellow): scleritis (red), episcleritis, conjunctivitis, uveitis, subconjunctival haemorrhage, jaundice Any discharge (watery or purulent)
	Cornea	Any opacities?
	Anterior chamber	Hyphaema (red), hypopyon (yellow), or able to see iris clearly
	Other	Evidence of trauma to eye?

Examination with the Ophthalmoscope

- Ideally performed in a dark room and with dilating eyedrops

Where	Examine	Example of why
Eyes	Fundal reflex	Decreased or absent reflex may be associated with cataracts, retinoblastoma etc.
Retina	Optic disc	Assess contour, colour and cup Optic disc swelling (papilledema) associated with raised intracranial pressure
	Macula	Exudates may be associated with diabetic or hypertensive retinopathy
	Retinal vessels	Neovascularisation associated with diabetic retinopathy Arteriovenous nipping associated with hypertensive retinopathy

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Snellen chart procedure

Assessing distance visual acuity:

- Position the patient so they are 6m from the chart with their glasses on (if applicable)
- Ask the patient to close one eye
- Ask the patient to read the lowest line they can and record this value
- Repeat with the other eye

Interpretation:

- e.g. a person with 'normal' vision would be expected to read to at least the 6/6 line, recorded as '6/6'
- If a patient gets 2 or fewer letters wrong on a line, you can record this as e.g. '(-2)'
- If they get more than 2 letters wrong on a line, record their acuity as the previous line
- You can see if their vision improves by looking through a pinhole
- Note if they used glasses, a pinhole or were unaided

If the patient can't read the largest letter, go through the following steps sequentially to see which they can do:

- Move the patient closer to 3m from the Snellen chart
- Move the patient to 1m from the Snellen chart
- Hold up a number of fingers on your hand and ask them to count your fingers
- Assess if they can see gross hand movements e.g. waving
- Assess if they can see light shone into their eye from a torch