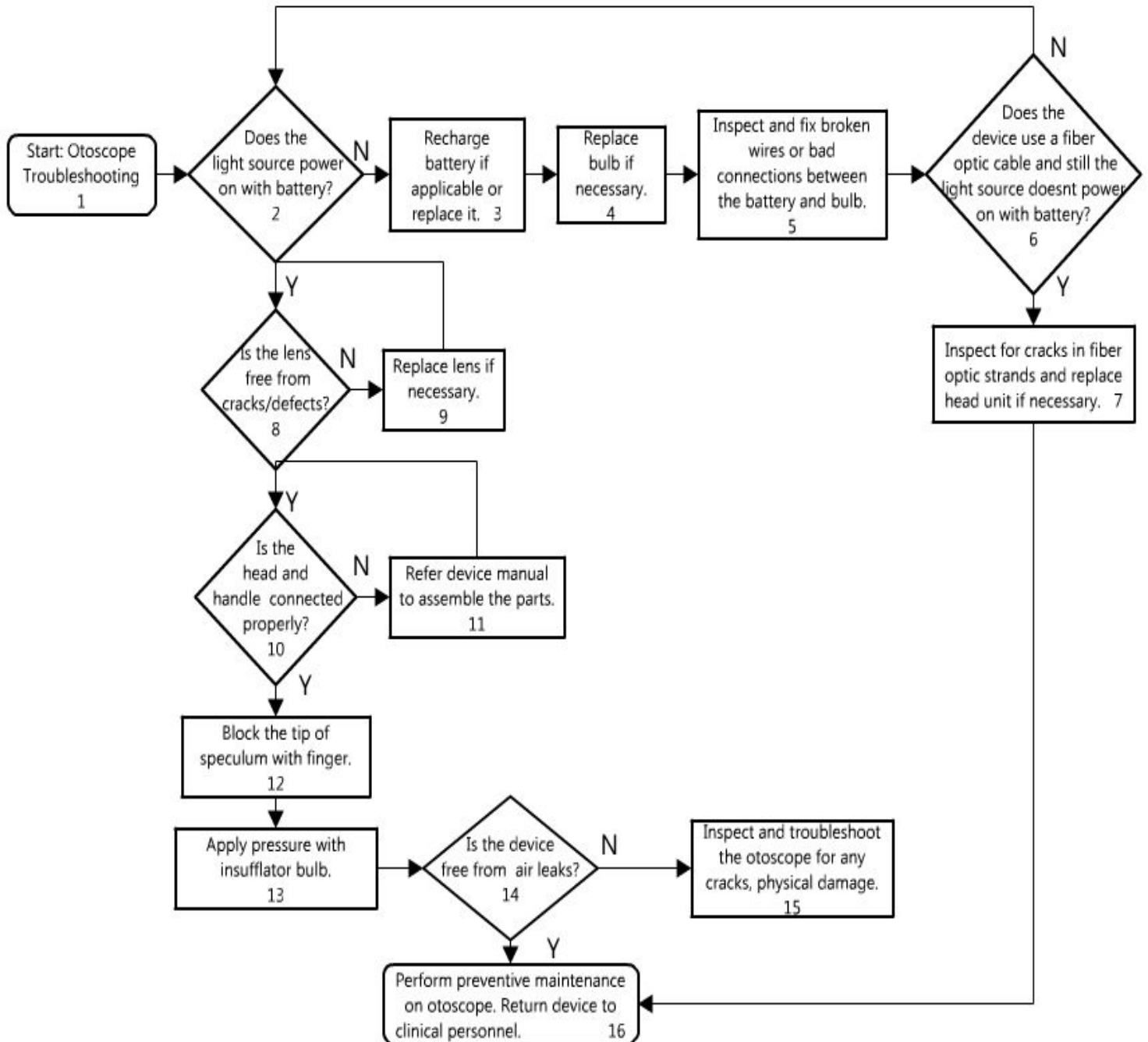


# Otoscope Repair and Troubleshooting

## Flowchart



### **Description**

<b>#</b>	<b>Text Box</b>	<b>Comments</b>
1	Start: Otoscope Troubleshooting	Begin diagnostic process for a work order on Otoscope.
2	Does the light source power on with battery?	Power on the device with battery. Examine whether light bulb gives sufficient illumination.
3	Recharge battery if applicable or replace it.	Refer BTA skill set on Batteries to identify and replace damaged batteries.
4	Replace bulb if necessary.	Refer BTA skill set on Lighting/Indicators to replace non-functional light bulbs.
5	Inspect and fix broken wires or bad connections between the battery and bulb.	Inspect wires and connections from battery to bulb using multimeter. Refer BTA skill set on Connections for identifying and fixing broken wires and bad connections.
6	Does the device use a fiber optic cable and still the light source doesn't power on with battery?	There are two types of otoscopes: <ul style="list-style-type: none"><li>• Conventional otoscope</li><li>• Fiber optic otoscope</li></ul> If the bulb still doesn't power on then there might be cracks in the fiber optic strands. So the unit might have to be replaced.
7	Inspect for cracks in fiber optic strands and replace the unit if necessary.	If the illumination is not sufficient then inspect for cracks in fiber optic strands.
8	Is the lens free from cracks/defects?	Any defect in the eyepiece lens obstructs vision of ear canal.
9	Replace lens if necessary.	Identify and replace with a suitable lens.
10	Is the head and handle connected properly?	Improper connection between head and handle may result in faulty operation of the device.
11	Refer device manual to assemble the parts.	Follow instructions in the device manual to assemble the parts together.
12	Block the tip of speculum with finger.	This test is performed to detect any air leaks in the device. Connect the pressure bulb to the connector in otoscope to perform this test.
13	Apply pressure with insufflator bulb.	Apply pressure continuously over a period of time and check whether it can be felt at the tip of speculum.
14	Is the device free from air leaks?	If the flow of air due to pressure is not felt at the tip of speculum then there is a possible air leak in the device.

15	Inspect and troubleshoot the otoscope for any cracks, physical damage.	Inspect otoscope for external cracks, damage, or dirt.
16	Perform preventive maintenance on Otoscope. Return device to clinical personnel.	Otoscope is working properly. Perform preventive maintenance before returning the device to clinical personnel.