



Review Article

A Review on Role of Unscrub Operation Theatre (OT) Assistant/Technician in Sterile Surgical Field

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Abstract

Operation Theater (OT) technology is the emerging profession in the field of Allied Health Sciences these days; but the role of unscrub OT assistant/ circulator is under estimated as compared to other members of OT team. The main aim of this review article is to provide information on the role of unscrub OT assistant/ technician (OR circulator) in the sterile field of surgery in OT in current scenario. For this purpose the original research articles of related fields have been collected and published books were recited to obtain the information required.

Keywords: OT Technology, Operation Department Practices, Role of OT Technician, Operation theater assistant responsibilities, Perioperative Care, Operation theatre Team.

1. Introduction

There is very specialized role of Operation Theater (OT) Assistant/ circulator in OT; but the role of his/ her is under estimated as compared to other professionals in OT. Contributors have done vigorous search and recited many published research articles and books & made a review to explore current actual role of unscrub OT assistant/ circulator in the surgical field.

Operation Theatre (OT) is a place where all the requirements are present for the successful surgical treatment of patient without risk of infection. Adequate design of OT and microbiological surveillance/ monitoring, proper sterilization methods and barrier techniques used by the members of OT Team are the pillars for prevention of infection in OT [1]. Technique used for surgery in pre, intra and post-operative period is called OT technique. The professionals working in OT are collectively called OT Team whose aim is successful surgical procedure [2].

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Preoperative awareness of goal, proper skills for surgery, mutual trust, respect, mentor-mentee relationship and good communication among team members, all these facts provide successful results of surgery [3].

OT Team- It is divided into following groups [4,5].

(A)- Surgical team (B)- Anesthesia Team
Surgical team is divided into -

(I). Unsterile Team Members of surgical team -
(Wears OT footwear, OT dress, cap, facemask)

Unscrubbed OT assistants/ Technologist may be -

- Changing room assistant
- Scrub room assistant
- Pre-op holding assistant
- OR Circulator/ Runner/ Floor assistant

(II). Sterile Team Members of surgical team -
(Unsterile member wears plastic apron then scrubs-up followed by gowning and gloving to become sterile team)

Members may be -

- Surgeon, Assistant Surgeon
- Scrubbed assistants/ Technologists
(1st & 2nd)

There are different names of OT assistants in different regions like he/ she is called nursing assistant, nursing technician, operating room technician or surgical technical aides in Canadian hospitals [6]. In USA, he/she is called Surgical Technologist [5].

Levin Report (British Medical Association - 1970) on staffing & organization of OT find the deficiency of theatre nurses which had led to queue of patient in OT, Thus a new staff was created in London named Operating department assistant (ODA) to solve this deficiency of work [7].

2. Unscrub OR circulator’s assistance in the surgical field – OR circulator is the unsterile surgical team member who -

- Assists the sterile surgical team members [8].
- Makes proper communication with other healthcare professionals [8].
- Handles unsterile supplies and equipments [5, 8].
- Coordinates the activities within operating room [4].
- Uses aseptic techniques to provide assistance to sterile team in surgical field as & when required, to avoid break in sterility (like provide sterile articles with handling of outer unsterile cover) [5].
- OR circulator’s assistance in the surgical field is done in following stages –
 - Assistance in trolley preparation
 - Assistance before starting the procedure
 - Assistance during procedure
 - Assistance after removal of specimen
 - Assistance before Closure (Recounting procedure)
 - Assistance after completion of procedure

In the peri-operative phases, OR circulator describes many role works identical to that of OR nurse, there are no specific boundaries on work distribution; this leads to conflict in them and affects patient safety [8].

3. Assistance in trolley preparation – OR Circulator -

- Opens sterile packs & drums (Avoid contamination) by touching unsterile outer surface & calls scrub person to pick items from packs [4].
- Flips sutures or other items from packets like surgical blade on sterile trolley [4].

- Pours antiseptic solutions like savlon solution, povidone iodine solution and isopropyl or ethyl alcohol solution in cups/ bowls [5].
- Removes sterile items from one sterilization field with Cheatle's forceps and keeps in another sterile field (but it is not preferred) [4].
- Helps in counting the instruments, needles, sponges etc with scrub person and writes on board [4, 9].

4. Assistance before starting the procedure - OR Circulator -

- Adjusts OT light if needed [4].
- Makes arrangement of waste-bin lined with plastic bag in proper place with help of sweeper [4].
- Exposes patient’s skin for preparation and incision [4].
- Attaches table attachments and anesthetic screen [4].
- Helps in positioning of patient [8].
- Places stool for surgeon if needed [4].
- Cares the patient on OT table [4] and provide psychological support [8].
- Covers sterile drape over anesthetic screen [5].
- Places patient plate of ESU on contact of patient skin [10].
- Connects suction tube and cautery leads to the machine [4, 5].

5. Assistance during procedure -

OR Circulator always remains alert and acts aseptically according to the needs of sterile team members [4].

Like -

- Supplying extra sponges, sutures, saline, gloves etc.
- Soaking perspiration from brows [10].
- Helps in other requirements arising during surgery like adjusting the OT dome light if indicated [4].

6. Assistance after removal of specimen -

- Receiving specimen from scrub person in proper container and prepare it for laboratory investigation is the key role, if advised [4].

7. Assistance before Closure (Recounting procedure) –

- Counting of instruments and other articles is further done just before completion of procedure to match with previous count made before starting the procedure [9].

8. Assistance after completion of procedure - OR Circulator [4] -

- Helps in fixation of dressing on incision site with adhesive tapes.
- Helps in bandaging.
- Opens neck and back ribbons of gown of scrub person for removal of gown.
- Helps in transfer of patient to and from OT with proper care of patient.

Many hospitals have realized the significant role of OT Technicians not as the substitute for nurses but as permanent member of OT Team; but it is a serious point that they are underestimated in comparison to other professionals of team like low pay scale of OT Technician. Zuckerman report (Hospital Scientific & Technical Services, Report of committee London HMSO 1967-68) recognized the value of OT Technicians [1].

There were so many anomalies present in 5th CPC in India and this generated frustration in OR circulators/ technicians/ assistants like –

1. Poor pay scale
2. Lack of promotions
3. Same post and work have different pay scale.
4. Junior post's pay is more than senior post.

“All Indians have equal rights but above matter is not as per the Right of Equality” [2]. So, further amendment in the rules is the need of these days for circulators/ OT assistants.

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