



## Rajiv Gandhi Cancer Institute and Research Centre

A Unit of Indraprastha Cancer Society  
Registered under "Societies Registration Act 1860"

Architect's Impression of RGCI & RC (post expansion)



# News Letter

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## EDITORIAL

### CHECKLISTS - ARE THEY USEFUL?

In 1934, Boeing Aircraft Company submitted a proposal for supplying heavy bombers to the Army Air Corps in the hope of obtaining a large order. Although the plane had performed extremely well in initial trials, on the day of final phase of evaluation, an army pilot took off in test model and crashed the plane shortly after becoming airborne. Subsequent review showed that the test pilot was unfamiliar with the controls and had failed to release the elevator lock before takeoff. Boeing was given a limited order for 13 planes only. New tool was developed to make sure that everything was done for the flight and that nothing was overlooked; it was a "checklist". They actually developed four checklists (take off, flight, landing and after landing). Since that time military and commercial aviation has relied heavily on checklists for all normal operations and emergency procedures. The crew of US airways in Jan 2009 was able to perform on emergency landing in the Hudson River and save all 155 persons aboard despite loss of both engines. It was use of checklist. Coincidentally within 2 weeks of this incident, the New England Journal of Medicine published a monumental report about the success of the use of pre-surgical checklist to reduce mortality and morbidity in surgical procedures in 8 study hospitals around the world.

Here is an illustration. Forty year man was shifted to OR-5 and anesthetist induced the patient, the technician positioned the patient in left lateral position for nephrectomy. Then Sr. Resident entered the OR and cleaned and draped. Sr. Consultant made his appearance late in the theatre and vaguely remembered about clinical findings of palpable RCC. But he could not feel the lump. He wanted to check from the consent form which did not mention the side of surgery. Interestingly case sheet had mentioned about Rt side renal mass but the findings did not corroborate with imaging findings. Chief surgeon re-examined in supine position, discussed with radiologist and reconfirmed the site and side with relations of patient. Lot of time was lost Left nephrectomy proceeded but unfortunately patient bled due to IVC injury and required massive blood transfusion. Blood had not been arranged thinking it is a small surgery. To add to the misery of the surgeon, sister reported a missing sponge after closure of abdomen. X-ray abdomen was done which did not reveal any radiopaque material. Then suddenly the support staff brought a soaked sponge which he confirmed, he had removed from the same OT one hour back.

There were many near misses in this case. Patient could have had wrong side surgery. Blood loss should have been anticipated. Sponge count should have been done before starting abdominal closure. That is what a checklist is "to

do things". If site and side of surgery is marked, blood loss is anticipated, x-rays are displayed, instruments and sponge counts are written on board in OR and surgeon, anesthetist and nurse would have discussed about patient before surgery and before shifting the patient out of OR, major morbidity and errors can be averted.

A Medical report from USA in 1999 "To Err is Human" suggested that somewhere between 44,000 and 98,000 patients died each year in USA because of medical errors. This report stimulated a movement toward program designed to improve patient safety and outcome including standardization of processes, adoption of evidence based medicine and the development of checklists. The earliest checklists in medicine were use of "read do" checklist of anesthesia machine; management of diabetes, ICU care etc.

In any ICU, catheter related bloodstream infections are known to be serious risk for patients. If we presume the incidence of 2 to 5 infections per 1,000 catheter days in any ICU, it would produce a national total of 80,000 annual infections and 28,000 deaths with an estimated cost of \$2-3 billion (USA). The Hopkins team even empowered the nursing staff to "stop the line" if the providers deviated from the checklist at any point of time. The checklist included hand washing, use of mask and gown, full body barriers, chlorhexidine skin preparation, avoidance of groin and sterile dressing. This process produced a reduction of catheter related blood stream infections from 11.3 per 1,000 catheter day to zero. Now the "central line Bundle" has become the standard of care in USA.

The WHO Safe Surgery Saves Lives Project eventually provided the major impetus for the widespread adoption of pre-procedural checklists in OR in 2008. The rate of complications dropped from 11% to 7% after use of checklist. There was reduction in morbidity and mortality (from 3.7% to 1.4%).

Let us use surgical safety checklist in OR and "Central line bundle" in ICU regularly. These will act as framework for team building and improve communication in addition to the medical benefits. There is a need for cultural change in medicine to support the adoption of safer practices. It is a wakeup call for all of us to use "checklists" for whatever specialty you practice.

**Dr. Dewan AK**  
Medical Director



# RAJIV GANDHI CANCER INSTITUTE AND RESEARCH CENTRE

## Surgical Safety Checklist

FGL/09 03

Name \_\_\_\_\_ C.R.No. \_\_\_\_\_ Age \_\_\_\_\_ Sex: M  F  Ph.: \_\_\_\_\_  
 Doctor/Consultant \_\_\_\_\_ Ward/Bed No. \_\_\_\_\_

BEFORE INDUCTION OF ANAESTHESIA SIGN IN	BEFORE SKIN INCISION TIME OUT	BEFORE PATIENT LEAVES THE OPERATING ROOM SIGN OUT
<input type="checkbox"/> PATIENT HAS CONFIRMED <input type="checkbox"/> IDENTITY <input type="checkbox"/> SITE <input type="checkbox"/> PROCEDURE <input type="checkbox"/> CONSENT <input type="checkbox"/> SITE MARKED/NOT APPLICABLE <input type="checkbox"/> ANAESTHESIA/SAFETY CHECK COMPLETED <input type="checkbox"/> PULSE OXIMETER ON PATIENT AND FUNCTIONING <input type="checkbox"/> DOES PATIENT HAVE A: a) KNOWN ALLERGY? <input type="checkbox"/> YES <input type="checkbox"/> NO b) DIFFICULT AIRWAY/ASPIRATION RISK? <input type="checkbox"/> YES <input type="checkbox"/> NO c) EQUIPMENT/ASSISTANCE AVAILABLE <input type="checkbox"/> YES <input type="checkbox"/> NO d) RISK OF >500 ml BLOOD LOSS (7 ML/KG IN CHILD)? <input type="checkbox"/> YES <input type="checkbox"/> NO e) ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> OTHERS: a) Blood arranged <input type="checkbox"/> YES <input type="checkbox"/> NO b) Appropriate Venous Access <input type="checkbox"/> YES <input type="checkbox"/> NO c) Instrument/Device applicable <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE <input type="checkbox"/> SURGEON, ANAESTHETIST AND NURSE VERBALLY CONFIRM <input type="checkbox"/> PATIENT <input type="checkbox"/> SITE <input type="checkbox"/> PROCEDURE <input type="checkbox"/> ANTICIPATES CRITICAL EVENTS a) SURGEON REVIEWS: What are the critical or unexpected steps, operative duration, anticipated blood loss? b) ANAESTHESIA TEAM REVIEWS: Patient – specific concerns <input type="checkbox"/> (ASA GRADE) <input type="checkbox"/> Glycemic Control <input type="checkbox"/> Patient Warming c) NURSING TEAM REVIEWS: <ul style="list-style-type: none"> <li>Has sterility been confirmed? Are there equipment issues Hair removal?</li> </ul> <input type="checkbox"/> IS ESSENTIAL IMAGING DISPLAYED? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES? <input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> NURSE VERBALLY CONFIRMS WITH THE TEAM: a. THE NAME OF THE PROCEDURE RECORDED b. INSTRUMENT, SPONGE AND NEEDLE COUNTS c. LABELLING OF SPECIMEN (PATIENT NAME, CR NO.) d. ANY OTHER EQUIPMENT/PROBLEMS <input type="checkbox"/> SURGEON, ANAESTHETIST AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY & MANAGEMENT OF THIS PATIENT

Signature of Anesthetist \_\_\_\_\_ Signature of Surgeon \_\_\_\_\_ Signature of Scrub Nurse \_\_\_\_\_

Sector V, Rohini, Delhi-110 085 | Enquiry: 011 - 47022222 | Emergency No: 011 - 47022400, Appointments: 011 - 4702207071 | www.rgcirc.org

## MEASURING CLINICAL QUALITY INDICATORS

*The ultimate goal is to manage quality, but you cannot manage quality until you have a way to measure it and you cannot measure it until you can monitor it.*

*Florence Nightingale*

*Traditionally, clinicians and healthcare managers used their intuition and logic to define healthcare strategy and action. But today, quality professionals, clinicians and nurses are interested in evidence based medical and Nursing practice and rely on data, and information this data offers. The era of information is here to stay.*

***“In God we trust, all the others must use data.”***

*Statistician's Credo*

Most of us are familiar with dashboard of the car; it gives the driver a fair idea whether the car is in good shape or whether a particular function of a car is performing optimally, necessitating some repair and in some cases – urgent action. The same is true for a hospital dashboard wherein clinical and other administrative indicators are arranged in a fashion that they give fair idea of the health of the hospital, whether some area needs to be looked into, necessitating some improvements.

Indicators provide a quantitative basis for clinicians, organizations and planners aiming to achieve improvement in care and the processes by which patient care is provided.

Indicators can be related to structure, process or outcome of health care. 'Structure' denotes the attributes of the settings in which care occurs. This includes the attributes of material resources (such as facilities, equipment and financing), of human resources (such as the number and qualifications of personnel) and of organizational structure (such as medical staff, organization, methods of peer review and methods of reimbursement).

'Process' denotes what is actually done in giving and receiving care, i.e. the practitioner's activities in making a diagnosis, recommending or implementing treatment or other interaction with the patient.

'Outcome' measures attempt to describe the effects of care on the health status of patients and populations. Improvements in the patient's knowledge and changes in the patient's behavior may be included under a broad definition of outcome and so may represent the degree of the patient's satisfaction with care.

Clinical Quality Indicators (CQIs) are evidenced based indicators that support the measurement of the quality, safety and reliability of care. The CQIs focus on quality improvement rather than a measure of performance.

It is important to define appropriate Numerator and denominator also, indicator is a number, a ratio or is expressed in percentage or per thousand. Additionally, an appropriate sample size needs to be defined so that the sampling and results are statistically significant.

Data collection needs to be comprehensive coordinated and integrated. The frequency, type, sources and tools for data collection needs to be standardized across all units within the hospital to allow appropriate collation and organization of data. The collected data is then analyzed to generate meaningful information and conclusions. This allows administrators to understand quality of care just by analyzing the trends (say for last 6 months). The results must be shared with stakeholders which will help them raise the bar and focus on improvement.

The cornerstone of sustained process improvement is to determine what causes variation in indicators. Once we have these reasons, it becomes easy to make improvements. Let us take an example, say Emergency Department. Few indicators that help us know the functioning of Department at a glance are:

### **Unplanned re-attendance**

This indicator describes the unplanned re-attendance rate to the ED within 7 days of the original attendance. The aim is to make sure that the patient gets the best possible care at first attendance and that issues related to their care are clearly communicated to them. It is important to understand that the percentage re-attendance rate should not be zero, but ideally would fall within a range of 1-5%.

### **Total time spent in the Emergency Department**

This measure recognizes the fundamental importance of monitoring total time in the Emergency Department as a driver to maintain patient flow, whether being admitted to a hospital bed or discharged home. The measure reflects the benefits which have accrued from the 4 hour emergency care standard whilst minimizing the adverse consequences of a single time related measure of care.

### Time to initial assessment

This quality indicator records the time from arrival in the ED to documentation of initial assessment for cases. Initial assessment must include a pain score and physiological early warning score for all patients arriving by ambulance. This indicator aims to reduce the time the patient spends without assessment by staff. Serious untoward events have been noted where there have been significant delays in formal assessment.

### Time to treatment

This quality indicator records the time between ED arrival and the time when the patient is seen by a “decision-making clinician”. In practical terms this clinician is somebody able to discharge the patient from the ED. The time that the patient is seen by a decision-making clinician is already routinely recorded and reported in many EDs

Once we have a snapshot of these indicators, it gives a fair idea about the working of Emergency Department. This is how clinical Quality Indicators help us in knowing the functioning of a unit and improving quality of care.

**Dr. Sippy Batra**  
(Quality Cell)

## CANCER AWARENESS IN KATHMANDU, NEPAL



RGCI & RC, Delhi, organized Cancer Awareness Talk on Saturday, 19<sup>th</sup> April 2014, at Nepal Trade Centre, Kathmandu, Nepal for Rotarians of Nepal. “**Advancements in cancer treatment**” were discussed by Dr. A. K. Dewan, Medical Director, RGCI & RC, Dr. D. C. Doval, Director - Medical Oncology & Research, RGCI & RC and Dr. Sudeep Shrestha in the said program. More than 200 members attended the meeting with lively debates & interactions about cancer.

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To:

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