

A Computer is a fast electronic calculating machine which associates with speed, accuracy, program, fast storage in memory and retrieval of data, automatic operation without human intervention gives out put information, it can edit text, generate graphs, translate languages, and even play games.

INTRODUCTION

To day we use computers in virtually every area. Computers have entered in to practically every sphere of human activity, people are now able to solve very intricate problems and increasingly so with the aid of computers even in the hospitals, Nursing homes etc. In the Nursing field computer is used to find out the general condition of a sick person and carry quick investigation and for teaching purpose also.

HISTORY

The history of computer can be traced back to the abacus used primarily by merchants; a device used to add, subtract, multiply and divide numbers during (2000 BC).

Later, mechanically operated device were developed, these machines could add and subtract numbers in Blaise, Pascal's and Leibniz's calculator in (1804) French weaver used devised cards, that is punched cards.

Later on Charles Babbage devised a machine Analytical Engine. In 1940 John Vannevarian, made a revolution, and later the technique of integrating circuits came on a chip (Water of silicon).

In 1970 mini computers, micro computers, and super computers were developed by (INTEL). For thirty years the Brilliant used these computers for

education purposes and getting trained in how to handle the computer.

THE BASIC DATA PROCESSING CYCLE

Data are the representation of concepts or instructions, processing is

Nurse and Computers

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the changing of data according to a series of institutions. Data processing is the collection, processing and the output.

Input Devices: A way of getting data and instructions in to computer.

Output Devices: A way of getting data out of the computer.

Secondary Storage Devices: A place to keep data and instructions permanently.

Like an engine in a car, the control processing unit C.P.U is what makes the computer go, it is made up of two parts:

1. **Control Unit**: It selects interprets and sees to the execution of program-instructions.

2. **Arithmetic Logic Unit**: Calculations and comparisons are performed in the arithmetic logic unit.

Software: System in the computers. As a person wants to use a road map to find out the way to a destination, so does the computer programmer to find a way to a problem through solution.

THE SOFTWARE

Other types of systems software are : Word processors, Spread sheets, Database management system, Integrated packages etc.

Areas of the software application are :

Business and professional, Mailing, Manufacturing, Cost accounting, Inventory manufacturing, Design assistance, Assistance for manufact-

uring, Modelling, Accounting, General ledger, Accounting payable, Accounts receivable, Inventory, Pay roll, Scientific, Space, Simulation, Automation, Calculation, Monitoring, Analysis, Communication, Robotics and Artificial intelligence

Education : Instruction assistance, Data processing

Financial Accounting : Pay roll, Inventory control, Accounts

receivable

General use of computer is through : Soft ware system, Inter college system, to improve basic skills, to get degree and skills, Developing internet systems.

Computer, in the Administrative aspects :

1. Reservation for Admission or Booking.
 - a. Admission for any further study
 - b. Appointments
 - c. To witness
 - d. Attend meeting, Conference, etc.
 - e. For travel / booking.
 - f. Reservation for special works etc.
2. Computer represents the rules and regulations.
3. As per the cadre the job description can be obtained.
4. It maintains institution, policies and practices
5. Maintains any corresponding matters.
6. Computer maintains duty roster.
7. In the Hospitals it maintains physician's instructions, with date, time and follow-up treatment.
8. Administration of medication it maintains the route, time, doses, action, reaction and over dose etc.

Nurses are primarily administrators and keep a record of Job Description, Job Analysis, hence, the Nurses play a very prominent role in the hospitals.

Doctors diagnose the case



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and treat the patients and give the prescription, but; Nurses have an equally important role, she continuously records and monitors the patient's condition.

Nurses serve the patients with skill and sympathy with a smiling face. When we use the computers in the hospitals it reduces more than 80% of Nurses' work.

Computer In The Educational Aspects

1. Helps in guidance
2. Can get references easily from library
3. Maintains all types of patients' clinical records
4. Can demonstrate required records
5. Computer can preserve case study including case plan, history, lesson plan, assignments and confirm, discussions suggestion etc.
6. Can guide through different subjects and topics of health education
7. It maintains the record in emergency cases.
8. Can record sound track of a lesson, teaching etc.
9. Can prepare demonstration, procedures as teaching aid.

Organising And Planning

If an organisation invariably generates large number or volumes of data processing this tends to be a very tedious and time consuming task. Computers are ideally suited for respective tasks. They are accurate, versatile, can handle many different applications. By computerising the system personnel can be released for more productive tasks and ensure accurate and quick processing of data for organising and planning. The whole unit can be computerised with all physical accounts maintained through computer with descriptions. That is the date of purchase, cost, missing or damage and for transferring total items under use, balance and for further

orders, quotations etc.

In the record section the admission and discharge and case wise records are kept in the computer. In the pharmacy the drugs used, remaining balance, damage, expiry all record is kept in the computers.

The computer maintains daily records; Admission, Discharge, Death, the total number of inpatients etc. Thus the computer gives brief information to the new comers. It also helps for Research and Planning in the organization.

COMPUTERHELPSINTHE SERVICE SYSTEM:

The computer maintains the standard of care to be given and can display whenever necessary clarification is needed. Hence, the computer can be of great use to help the Nurses by maintaining the patient's condition by recording cardinal, respiratory temperature, cerebral, excretory function, bio-chemical in the blood level, even the computer gives alarm if any of the above system goes wrong. Computer helps in investigation by controlling through electronic scanning. In the operation theatre during any operation, it can take continuous films and deduct the fault totally. Computer is a great help to the Nurses in the operation theatre, it helps to maintain sterilisation, aseptic conditions and the list of required instruments etc. It also gives information about action and reaction of the drugs and sensitivity aspects, restrictions of diet, regarding the availability of specialist and details about in patients.

COMPUTERINNURSING

1. Computer helps Nurses in case of emergency with reference in the absence of Medical Experts.
2. Management of any type of disease. How to handle or care to be

provided.

3. Computer saves time and energy.
4. Computer helps the re-admitted patients to get the clear data, history, and guidelines for further treatment.
5. In all the institutions, hospitals, clinics and Nursing homes, the computer plays an important role in Nursing services.
6. Computer helps to give standard, comprehensive, skilled care through a care plan which can be acquired immediately for any specific Nursing diagnosis and also an access to international quality of Nursing services.
7. Computer helps to reduce the work load and provides relief from clerical work.
8. Prevents errors.
9. Computer helps to store the detail history and get information very fast.
10. Makes facility for advance booking for admission, sets to reserve, etc.
11. Can observe all the systems and vital signs if any change is required.
12. Helps to control monitoring and improves accountability.
13. The results of every investigation can be obtained within a short period.
14. Computer helps for planning the patient care for a particular patient and can also plan for his / her 'Diet'.
15. It helps for administration of medications and can also know the immunity and drug reaction.
16. It maintains accurately the linen and inventory accounts.
17. Maintains the report and the records.
18. Helps for easy communication through (internet-E.Mail)
19. Computer maintains standard of Nursing care. Encourages/creates interests in Nursing Services.
20. It helps for recreation.
21. Through computer the Nurses can advance learning. It helps



for research work by which a high standard of Nursing services at the international level is maintained.

Computer Applications

Many Nurses believe that their limited time can be better spent with the client, providing care, rather than generating written plans of care.

Computerization can decrease time spent in generating and maintaining plans of care and improve the quality of record keeping. Computerized plans of care provided to the Nurses in the special fields, e.g. surgical, medical, M.C.H., paediatric, psychiatric Nursing help to develop comprehensive, continuous, individualized and legible plans of care for each client. Nurses may quickly enter, display, evaluate, update and print a revised plan of care. standardized plans of care,

established priorities of care and define minimum standards of safe practices. They provide an outline for documentation of the care that has been given and the way the client responds to that care. They also serve to the Nurse's memory when caring for client's numbers. Easy access to computerized plans of care provides information, individual plans of care and the Nursing diagnosis accepted for testing by the (NANDA). These basic plans of care reflect standards of care for particular client problems and are designed to meet specific needs since the plans reflect a wealth of varied Nursing experience, they allow even novice practitioners to formulate effective care strategies and individualized care.

I would like to suggest that some of the subjects prescribed in the syllabus may be deleted like trends and

issues in Nursing and yoga and here I recommend if the University introduces computer science as choice subject with 25 hours theory and 20 hours of practice.

A Nurse should find the utility of computer application in the Nursing field as well as other fields and acquire the basic knowledge of computers, develop the ability in creating database, learn programming, appreciate the utility of computers through logarithms and flow charts so that she can prepare files and store files.

Storing and Analysing data represents the data through graphics etc. The use of computers for Nursing services can enhance the present status of Nurses to a more technically advanced position comparable with other medical professionals.



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