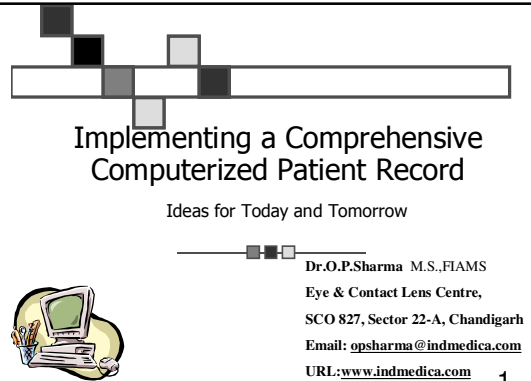


IMPLEMENTING A COMPREHENSIVE COMPUTERIZED PATIENT RECORD

Dr. O.P. Sharma

Guest Talk



Implementing a Comprehensive Computerized Patient Record

Ideas for Today and Tomorrow

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EMRs Defined What They Are and What They Aren't

- As more and more healthcare providers are introduced to medical office software, the term EMR (electronic medical record) is almost becoming a household term. Synonyms that are also recognized include EPR (electronic patient record), EHR (electronic health record), and CPR (computerized patient record).

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Advantage

- Conversion from a paper medical record system to a computer based patient record has lots of advantages.
- A basic understanding of computers is all that you need to know.

3


Increased Demands

- Increased demand for documentation in view of CPA & new MCI regulations
- Maintenance of records now mandatory
- The decrease in cost of computers along with need for documentation has fueled a growing interest in CPR

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Advantages of Computerized Patient Records

- Reduced costs
- Improved documentation
- Efficiency
- Legal considerations
- Security



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Reduced costs

The 2 Basic trends

Most business operating costs have increased over the past 30 years.	Cost of labor, power, materials & real estate have all increased	One of the few expenses that has been decreasing over the past 30 years is computer expense
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Reduced costs

Compare this with maintaining your current paper record system along with the man power needed to manage the same

It is obvious – it is far less costly to have computers do the work of people

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Consider the Automated Teller Machine

- The bank wanted to provide banking services to its clients 24 hours a day/ 7days a week through out the year.
- It would have costed the bank huge amounts to pay its employees to man the bank all 24 hours.

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Consider the Automated Teller Machine

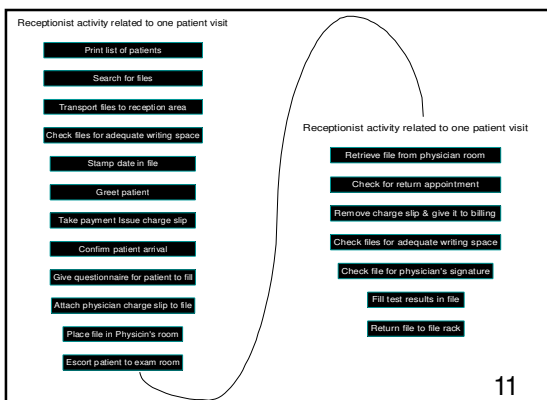
- The bank therefore automated the bank transactions & it now uses a computer in an ATM because it is less expensive than hiring a person.
- Customers can take money out of the bank 24 hours a day & ATM's can be located even in grocery stores.
- Online banking & online trading are excellent examples of use of computers.

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Paper Records

- The greatest cost of maintaining paper records is in personnel & rising paper & printing costs.
- Many doctors are not aware of all the steps that have to be taken to have a file available when a patient is seen.
- Files get lost or the patient takes away the file.

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Electronic Records

- You can reduce more than half these steps by using computerized patient records
- Less manpower – less paper work – reduced costs

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Digital imaging system

- One example of how computers can replace people in medical practice is in filing photographs.
- If mailing, receiving, labeling & filing color slides & angiograms is a full time job in a practice, this job can be eliminated by acquiring a digital imaging system.
- This imaging system can be networked to a server where all the images reside.
- No hard copies are to be made except those that are to be mailed to outside doctors or insurance companies. Even then it is easier to give them a CD.
- Easy to review these images for comparison at a later date.

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II - Improved Documentation

- The goal of documentation is to accurately record what actually takes place during patient encounter
- Unfortunately this is not the case
- File is not available when patient is seen
 - Clinical findings are not recorded
 - Test results not filled properly
 - Not legible. You may not be able to read your own notes

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III – Efficiency

- Computerised patient records increase efficiency by automating certain functions e.g. you write prescription in case file as well as on prescription pad.
- You can automatically do this by printing prescriptions, instructions, giving new appointments etc. through computer.
- Complete case file can be viewed in one go.
- Computer generated letters
- Communicating with staff easy. No need of picking up phone or shouting

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IV – Legal Considerations

- Medical records are subject to many regulations
- Medical Council of India, Courts insist that you maintain records
- Preferably on computers so that these are easily retrievable.

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Recommendation

- Implementing computerized medical records will reduce costs & improve documentation.
- Done properly, CPR can increase your productivity while enhancing the quality of your practice.
- With careful planning, it can be a win-win experience.

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Caution

- Computerization of medical records is a long drawn out process which could take anything between 6 months- 2 years.
- Don't expect miracles right from the day you purchase A COMPUTER.
 - Familiarize yourself with the machine.
 - Familiarize yourself with the software.
 - You may have to keep both manual & CPR initially.

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Common Problems

Requirements of medical profession are varied & diverse. Even same specialty doctors do not agree on writing e.g. the complaints in a particular way

- Then each every specialty has its own requirements like immunization tracking, pediatric dosing calculations, growth charts, IVF, delivery records etc.

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Medical Patient Record Keeping

- Chief Complaints
- History
- Examinations
- Investigations
- Diagnosis
- Prescriptions
- Instructions
- Special Procedures
- Pre Operative & Post Operative Notes
- Medical Images/ Videos
- Patient Drawings

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Medical Patient Record Keeping

- To be able to do & satisfy each & every doctor's requirements, the software has to be highly dynamic.
- The doctor should be able to change complaints, examination data etc. as per his own preferences & write his own prescriptions, instructions etc. in easiest way possible. He should also be able to create his own super specialty clinics & arrange data as per his own requirements.
- The software should take less than a minute to record OPD findings.

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Chief complaints

The screenshot shows a 'Patient Details' window with various tabs like 'Complaints', 'History', 'Past/Family', 'Systemic', 'Diagnosis', 'Prescription', and 'Drug Allergy'. A red callout box points to the 'Complaints' section, stating: 'This is the main working area for the patient. Complaints - The complaint details can be added by clicking here. You can add multiple complaints.'

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Refraction

The screenshot shows a 'Glasses' form with fields for 'Right Eye' and 'Left Eye' with sub-fields for SPH, CYL, AXIS, and VISION. A callout box at the top left says: 'Different types of refraction findings can be recorded'. Another callout box at the bottom left says: 'You can give a print out of glasses Prescription from here'.

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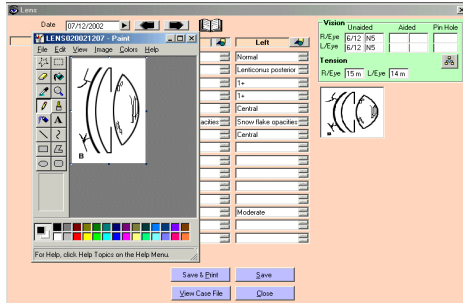
Refraction

The screenshot shows a 'Refraction Print Preview' window for Patient ID: 2, Name: Ranjana, Age: 40, Sex: Female, Date: 07/12/2002. It displays a table of refraction data for Distance, Intermediate, and Near vision for both Right and Left eyes. A callout box at the top right says: 'Glasses prescription print out can be edited & then printed'.

Distance	SPH	CYL	AXIS	Vision
Right Eye	+1.25	+0.50	95	6/6
Left Eye	+0.75	+0.50	90	6/6
Intermediate				
Right Eye	+2.50	+0.50	95	N5
Left Eye	+2.00	+0.50	90	N5
Near				
Right Eye	+3.25	+0.50	95	N5
Left Eye	+2.75	+0.50	90	N5

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Draw your own images



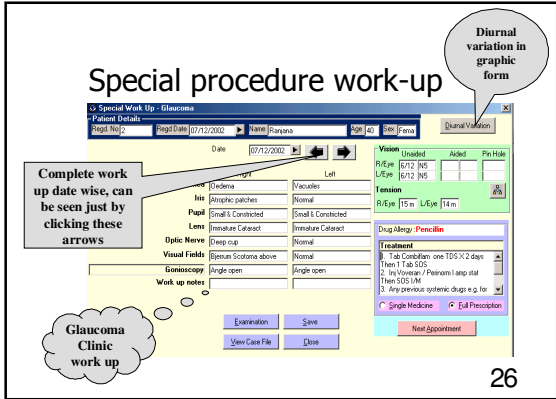
25

Special procedure work-up

Complete work up date wise, can be seen just by clicking these arrows

Glaucoma Clinic work up

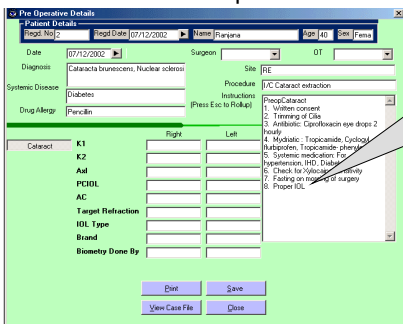
Diurnal variation in graphic form



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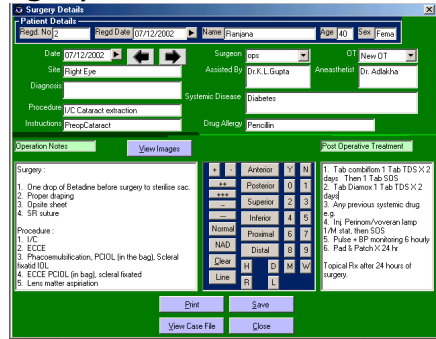
Medical Patient Record Keeping Pre Operative Notes

Write preoperative instructions for hospital staff to follow



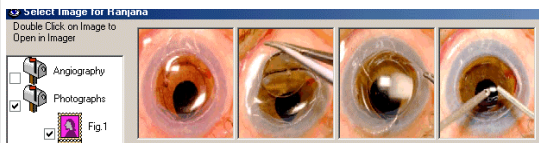
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Surgery Details



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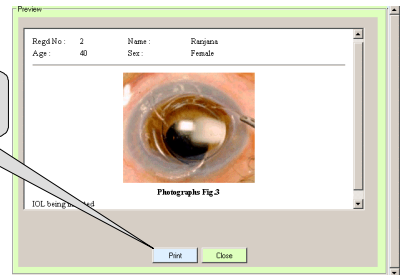
Images



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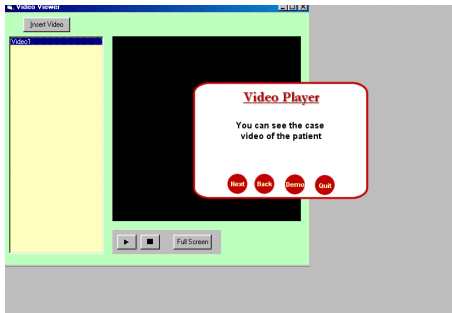
Print images

Images can be printed & given to patients



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Patient Videos

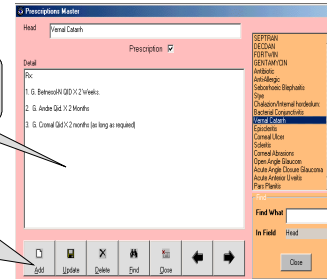


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Prescriptions

Prescription master helps you pre-write prescriptions.

Click on Add, give a heading, write prescription. Click update to save

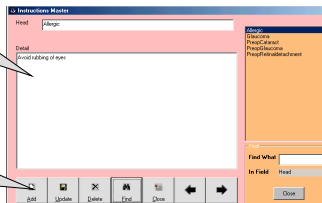


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Medical Patient Record Keeping Instructions

Instruction master helps you pre-write instructions.

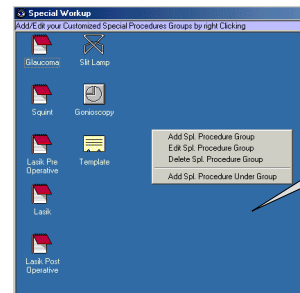
Click on Add, give a heading, write instruction. Click update to save



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Medical Patient Record Keeping Special Procedures/ Workups

Create your own clinics or special work ups by right clicking in this area

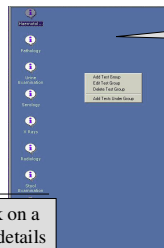


Complete Case File

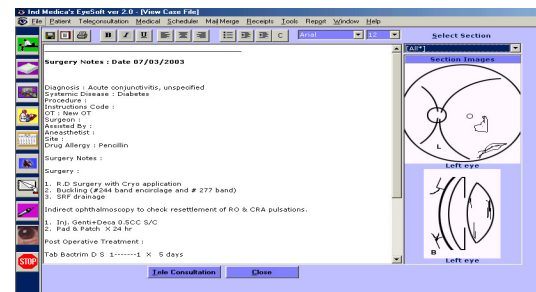
Medical Patient Record Keeping Generate customised Investigation Groups

Right click to add any new group

Double click on a group to see details



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