Development of medical record formats in Forensic Medicine and forensic science for General Practitioner in Community Hospital

Anuphong Phunpron[1]
Assoc. Prof. Dr Narong Sangwaranatee[2]
Email: Narong.sa@ssru.ac.th
Adjunct Assistant Professor Police Lieutenant General. Dr. Narong Kunides[3]
Email: Narong.kulnides@gmail.com
Doctor of Science Program (Forensic Science)
Email: Anuphong_phun@homail.com

Abstract

The practice of medicine or the medical profession requires the recording of patient information and various treatments in each patient, which is called medical record. All doctors must be instructed in this part since they have studied at the university. In terms of duties, whether in hospitals, clinics, or other medical institutions, it appears that writing medical records is not as it should be. It lacks of details or incomplete. These cases would inevitably affect the patients in safety and standard treatment.

Moreover, they may affect doctors, recorders, and patients in the case of a complaint sue. Medical records are essential documents. Therefore, the doctor should know that medical records and related documents are essential.

Forensic medicine is a person who plays a vital role in the treatment and takes care of forensic patients in the clinic. That requires knowledge expertise in forensic medicine and trauma care for patients, including dealing with forensic evidence and forensic science, which is noticed. Accordingly, doctors need to have knowledge and ability to understand forensic issues thoroughly, such as assessing the severity of the wound and wound types. There is also traumatic type behavior caused by accident, physical abuse, and self-abuse — finally, the awareness of the type of wound caused by sharp or blunt objects. The doctor should document the location of the wound on patient's body accurately.

Keywords: Medical Record, Forensic Science, Forensic

Introduction

Currently, The judicial process of Thailand attaching great importance to scientific evidence, which can be appeared from the 20-years National Strategy (2018 - 2037) on justice regarding every step must clear time frame and a mechanism to help people equally. Strictly enforcing the law, as well as develop a criminal investigation system, has checked and balanced standard forensic system. The judicial process is productive and conducive to national competition. Criminal investigation and supporting information were needed. It is changing from the accusation system in the past to the proven system of criminal offenses verified by evidence.

For this reason, it is necessary to prevent witness material from being contaminated or destroyed. Therefore, the witness or evidence must have a record, compile, control, and complete storage by correct standard in order to obtain useful information and evidence. It can be referenced and accepted In the process of justice, whether civil or criminal cases. Excepting personnel in the judicial process, forensic medicine is one of the most influential in helping to find the truth. Nowadays, criminal cases are more complicated. The role of forensic physicians in the process of justice is significant. Not only post-mortem examinations, autopsy or wound diagnosis but also in many cases. It is necessary to find out the truth about Biological Trace Evidence, DNA tests, Toxicology, as well as to give an opinion on issues related to medical law.

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Forensic medicine is a person who plays a vital role in the treatment and takes care of forensic patients in the clinic. That requires knowledge expertise in forensic medicine and trauma care for patients, including dealing with forensic evidence and forensic science, which is noticed. Accordingly, doctors need to have knowledge and ability to understand forensic issues thoroughly, such as assessing the severity of the wound and wound types. There is also traumatic type behavior caused by accident, physical abuse, and self-abuse — finally, the awareness of the type of wound caused by sharp or blunt objects. The doctor should document the location of the wound on patient's body accurately. They are following: Which side of the chest is wounded? How hight is it from the shoulder? How far is

it from the center of the chest? What is the type of the wound? How many wounds? What is the direction of the wound?

These wounds could tell the injury situation whether the patient is seriously injured following section 297 of the Penal Code. If there are no medical records, it will lead to being forgotten because the doctor may be a witness in court. It is essential to ask the prosecutor or the cross-examination of the defense lawyer. Therefore, it is significant for doctors or nurses who practice forensic medicine in medical records as evidence. It is often neglected to record treatment data following the draft regulations establishing standards in the medical recording. As a practice guideline (Pornthip Rojanasunun, prosecution of doctors), it includes issuing documents and giving comments such as post-mortem wounds. When examining alive patients involved in the case, the doctor must give an opinion to the inquiry official.

The survey found that there is a minimal number of medical graduated. There are only 100 experts in forensic science in Thailand (Medical Council: 2019), which is less compared to other doctors. Most of them operate in Bangkok and suburbs. For provincial areas, there will be restrictions on forensic medicine. Therefore, most doctors who work together with the investigating staff will be general practitioners or other general doctors. They have to do postmortem following the Criminal Procedure Code, Section 148-156. Their knowledge and understanding of various forensic issues are insufficient even as the examination of patients in terms of their background, physical examination, laboratory examination, recording facts in medical records, providing information to patients and relatives, and issuing medical reports from the above history. The researchers are interested in general practitioners in community hospitals.

Guidelines for recording medical records

A medical record is a recording from doctors and medical personnel for a patient. It is essential to document illness in the past and use this data to do a treatment for patient continuously. The document that records critical information and things that have been performed is data to calculate various statistics. There is a document for the disbursement of medical money fees. It is also the witnesses in a legal document. The Medical Council has given importance to medical records and has issued guidelines for medical records for patients since February 1999. It intends to provide treatment for general patients and suspects of a crime. It is a quality assurance for patient care. The Medical Council has approved the guidelines for Thai doctors in order to record patient medical. Although it is just a guideline, all physicians should follow because it will give benefit to patients and public health care at the level of policy administration. There is a piece of documentary evidence for patients, the other parties, and including doctors when a problem in the prosecution of justice occurred.

The principles in recording medical records

1) The recording of clinical data is the responsibility of the doctor who takes care of the patient.

2) Data recording is done manually or supervise for others to record correctly.

3) Record the history of essential symptoms.

4) History of drug allergy, chemicals, or other substances.

5) Vital Signs

6) Physical examination results for abnormal patients, which is essential for diagnosis or patient treatment.

7) Patient problems, diagnosis or differential diagnosis

8) Ordering medical care Including the type of medicine and the amount of them.

9) For clinical skills, the doctor should record reason, necessity, patient consent form, and representative document. This process is completed after patients perceive all procedure, results, and complications which may occur.

10) Other recommendations given to patients.

11) Handwritten notes should be clear enough for others to understand or using typing, and the doctor who treats the patient must sign the end of the prescription.

12) Prescription medication, medical treatment by speech, or by phone can only be done if there is an urgent need for patient safety. In cases of first-aid treatment, the doctor who orders the treatment must sign the final statement as soon as possible.

However, it is no more than 24 hours after ordering the treatment. 13) The medical record should be completed within 15 days after the patient discharged from medical treatment.

14) For continuously of medical care, the medical record should be kept at least five years from the patient's arrival until the last medical treatment.

15) Before a medical record is destroyed, the hospital should announce to the patients who take advantage of this information. They are able to reject the destruction or copy of their parts for further benefits.

The survey is provided by asking medical professionals, practitioners, and doctors responsible for medical records. It is found that most doctors still have effects in medical records, especially medical doctors who have graduated for a long time. All doctors were informed and aware of the importance of medical records since they studied as medical students. Only after graduating and working, they neglect to do medical records. Most of them are caused by the burden of treatment for numerous patients. However, medical records can be practiced by a nurse or nursing assistants who help in the medical examination room. They can record, but the doctor still reverifies and sign immediately.

Guidelines for examination of cases and the preparation of legal documents.

1. Case examination - taking medical records by specifying the wound details appropriately for each wound can be done as follows: a. The type of wound b. Size (by specifying the width, length, depth) c. Position d. Direction (especially the pierced wound and other gunshot wounds), such as the shape of soot, gunpowder - photographing the wound at the doctor's discretion - if the inquiry official requests a toxic examination. Substance abuse or alcohol requires the doctor to seek consent from the patient. If the patient agrees, the patient sign the consent document. If the patient refuses, the doctor must note the rejection, but the patient still sign. In case of denying, the doctor has to find another witness to guarantee. If the patients are unconscious and the official inquiry requests the toxic examination, substance abuse, or alcohol abuse, doctors are operated.

2. Guidelines for the investigation of victims in the case of sexual offenses and the preparation of legal documents proceed as follows:

2.1 General physical examination and examination of the affected organs

2.1.1 General physical examination - Check and record wounds in different parts of the body - Check and record physical growth and external genitalia Including general mental, emotional, and emotional state conditions as far as possible. In case of uncertainty about the age of the patient, the doctor consults a specialist in order to accurate the patients' age.

2.1.2 Examination of the affected organ area. The law specifies three possible organs, including the genitals, anus, and the oral cavity. Therefore, the victim has a clear history of the genital mutilation to check only the organs. Nevertheless, the event the victim does not recall; all three organs above are checked under the consent of the victim.

3. Specimens and laboratory examination - Sampling specimens at the female genital area, should be collected at least two locations in the vulva and inside the vagina. - Laboratory tests require semen in order to find Acid Phosphatase and Prostatic Specific Antigen (PSA). Other laboratory tests are concerned with each patient. A sample and pubic hair are considered appropriately. Any toxicological examination, such as alcohol, toxic substances, or drugs, is also considered according to the patient's history and physical examination results.

Working system concepts

From the study of the Journal of the National Productivity Institute, it is talking about the concept of PDCA is one concept that is not just about planning, but this concept emphasizes regular operations with the goal of continuous development. The PDCA concept was first developed by Walter Shewhart, who pioneered the use of statistics for the industry, and later the PDCA circuit became more widely known as the master of Quality management like W. Edwards Deming has been released. Provide a tool for process

improvement; the circuit is also known as the "Deming Cycle." The structure of the PDCA consists of

1) Plan is a plan for taking action.

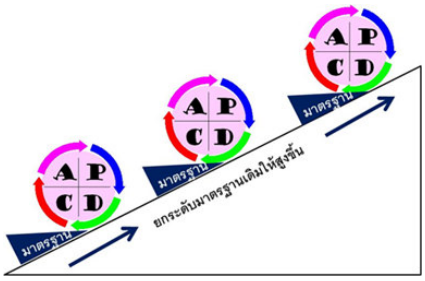
2) Do is the implementation of the plan.

3) Check is an inspection.

4) Act is the improvement of proper operations or the creation of new standards, which is considered the basis of quality improvement.

Every time the PDCA cycle is completed, it will be the driving force for the next cycle. Moreover, it is causing continuous improvements as shown in Figure 1.

Conclusion



From the study of medical record guidelines and medical personnel in patient care, it is found that the medical profession was not only for public health service responsibility but also for social responsibility. Maintaining social justice for forensic science is an essential medical course. It brings medical knowledge in order to analyze problems in various cases, including criminal, civil, and other laws. Therefore, all doctors must know about forensic medicine and knowledge of quality medical records. As a result, it can be used in legal proceedings.

Quality of medical records must have four essential components which are:

Medical records which are completed record all critical topics. They are not supposed to be blank such as the discharge summary form, records of primary disease diagnosis, combined disease, other diseases, and injuries. They are entirely recorded on all topics. The operation details must record all position incision finding procedures.

Medical records are accurate. They records various content accurately, not distorted, such as the history of illness, physical examination, laboratory examination results, and drug treatment results. It must not deviate from reality. However, doctors may make a mistake initially. If the doctors realize that they do wrong, they can correct and sign before recording more correctly.

Medical records with proper details. It is a medical record with essential details. It does not have ambiguity, abbreviation, and symbols that some people do not understand. Doctors should be careful to write abbreviations. Because of those abbreviations, the other doctors, nurses, or staff who read the documents are misunderstood.
It will cause confusion and misunderstandings that can affect the patient.

Medical records are up to date. It is a medical record that has new information such as the last time of patient treatment and the latest laboratory results. When reading the medical record, it can completely understand the latest detail in which all patients have been treated.

Step of development Forensic and forensic medical records:

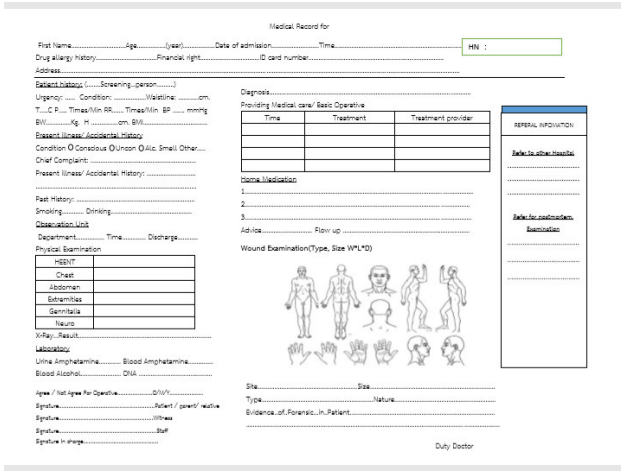
1. A meeting to find out the solutions for a problem

2. Design the form and specify all necessary information according to professional standards by surveying the required information from users.

3. Make a medical record form.

Evaluate the use of medical record forms and essential things.

It makes the outpatient department work for patient examination more effective. It has a working system that causes development and advance. It can be used in every generation, which is called the PDCA, also known as the Deming cycle. There are improvements and knowledge management tools such as Before Action Review (BAR) and After Action Review (AAR) or Best Practice. They will encourage the work to be more efficient.



Medical Record for

First Name.....Age.....(year).....Date of admission.....Time.....

HN :

Drug allergy history.....Financial right.....ID card number.....

Address.....

Patient history: (.....Screening...person.....)

Urgency: .... Condition: .....Waistline: .....cm.

T....C P.... Times/Min RR..... Times/Min BP ..... mmHg

BW.....Kg. H .....cm. BMI.....

Present Illness/ Accidental History

Condition O Conscious O Uncon O Alc. Smell Other....

Chief Complaint: .....

Present Illness/ Accidental History: .....

.....

Past History: .....

Smoking..... Drinking.....

Observation Unit

Department..... Time..... Discharge.....

Physical Examination

HEENT	
Chest	
Abdomen	
Extremities	
Genitalia	
Neuro	

X-Ray...Result...

Laboratory

Urine Amphetamine..... Blood Amphetamine.....

Blood Alcohol..... DNA .....

Agree / Not Agree For Operative.....D/M/Y.....

Signature.....Patient / parent/ relative

Signature.....Witness

Signature.....Staff

Signature In charge.....

Diagnosis.....

Providing Medical care/ Basic Operative

Time	Treatment	Treatment provider

Home Medication

1.....

2.....

3.....

Advice..... Flow up .....

Wound Examination(Type, Size W*L*D)

Site.....Size.....

Type.....Nature.....

Evidence..of..Forensic...In..Patient.....

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Duty Doctor

REFERAL INFORMATION

Refer to other Hospital

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Refer for postmortem Examination

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Suggestion

Ask questions from various institutions that are related to the justice process, other than the Ministry of Public Health. The coverage of medical records for legal use is concerned.

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