

# Review of the Use of Color Codes in Outpatient Medical Records to Prevent Errors in the Medical Record Alignment System at Hospital X Bandung

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## Abstract

Hospital X Bandung is one of the teaching hospitals that has various services, one of which is the service in the medical record section. The medical record also consists of several units, including a medical record file storage unit, but there are obstacles in the storage section, namely the use of a color coded system in outpatient medical records that are already running but have not fully met expectations because the standard *operating procedure* that governs this system has not made officially by the medical record installation so that it has an impact on the storage of outpatient medical records and on the storage officer.

This research uses descriptive research with observation and interview methods. This research consists of population and research sample. Officers at the outpatient service locker as a population and this population also acts as a sample in this study.

Based on the results of the study, the use of color coding in outpatient medical records did not work properly, this was evidenced by the results of interviews with outpatient medical record sub-section officers. outpatient medical records the obstacle that is the obstacle is the time constraint because there is no special officer to paste the color code on the outpatient medical record file and the efforts made for now are helping each other and going out in the field to help other officers in providing color codes on the file outpatient medical records.

**Keywords :** Color Coded, Outpatient, Medical Records

## INTRODUCTION

Health maintenance is an effort to overcome, and prevent health problems that require examination, treatment or care, including pregnancy and childbirth.

The hospital is a system or part of the health care system, which forms a unit that works together and is responsible for achieving a common goal in order to create optimal, effective and efficient services.

Medical Record is a file that contains records and documents about patient identity, examination, treatment, action, and other services provided to patients. Save activity record Medical is an activity to protect medical records from physical damage and the contents of the medical record itself. Storage of medical records has an important meaning in relation to a person's disease history in order to maintain continuity.

X Hospital Medical Record Installation continues to develop a management system that is easier to implement. The use of numbers or colors, for example in the outpatient medical record which was

developed in February by the Medical Record Installation in the outpatient medical record sub, greatly impacts the storage of outpatient medical records on the performance of officers in storage. Based on observations, this system is already running but not fully in line with expectations. Due to the *fact that the Standard Operating Procedure that regulates* this system has not been officially made by the medical record installation, then there are still storage errors found by the medical record officer when it is stored on the shelf, and the monitoring process is not going well, so that the process of evaluating the performance of officers does not run. These phenomena seem to be related to the implementation of proper supervision not fully running optimally. This can be seen from, Ka. The outpatient medical sub - record has not been able to establish *standard operating procedures regarding the official use of number or color code systems and the lack of responsibility and discipline from each staff*.

## LITERATURE REVIEW

According to the regulation of the minister of health No. 269 / MENKES/PER/III/2008 Medical record is a file containing records and documents regarding patient identity, examination, treatment, action, and other services that have been provided to patients [1]. Storage of medical record files has several purposes including maintaining the confidentiality of medical record documents , having an important meaning in connection with a person's medical history in order to maintain continuity , and facilitating the retrieval of medical record documents.

The way of storing medical record documents is divided into two, namely Centralization is a storage system where outpatient, inpatient and emergency medical record documents are stored in one shelf while Decentralized Storage is a storage system by separating medical record documents between outpatient, inpatient, emergency separate emergency with place, *folder* , shelf, storage. Medical record file storage facilities can use *Open Shelve* Cabinets (cupboards with open shelves) , Cupboards with Push Drawers ( drawers ) , Roll -O-Packs (moving cabinets) , Swivel Cabinets (rotary system) [2] .

Alignment is a system of structuring medical records in a special sequence so that referrals and retrieval are easy and fast. The alignment system is numerically divided into 3, namely:

1. Alignment System Based on Direct Numbers ( *Straight Numerical Filing* ) is to align the medical record document *folder* based on the direct order of the medical record number on the storage rack.
2. Alignment System Based on 2 Final Group Numbers ( *Terminal Digit Filing* ) is to align medical record *folders* /documents based on the sequence of medical record numbers in the 2 final group digits [3].
3. Alignment System Based on 2 Middle Group Numbers ( *Middle Digit Filing* ) i.e. align Medical record *folders* /documents based on the order of the medical record numbers in the 2 middle group digits. To make storage and retrieval operations easier, the TDF method is often developed using *color coding* [4]. Color coded are the 2 digits in the primary digit. The color combination is determined by each hospital, as shown in table 1.

0 black	5 blue
1 white	6 orange
2 red	7 purple
3 yellow	8 chocolates
4 green	9 gray

By using a color code, officers will more quickly see the location of storage and retrieval according to the

color listed. Another advantage is that it is easier and faster for officers to monitor (comb) the uniformity of color in each *section*. If there are different colors in one section, it can be ascertained that the file is in the wrong *section* (*misfile*) and can be immediately placed in the correct location according to the color code.

Conceptual framework in research is basically a framework related to the concepts that want to be observed or measured through the research conducted [5]. which is based on the existing theoretical framework. Then the conceptual framework can be used as a review of the use of number/color codes consisting of medical record numbers, medical record files, patient services and the number of patients. What can be error prevention in the alignment system includes accuracy, conformity, supervision and responsibility.[6]

## METHOD

### Research object, population and sample

The object of this research is the Head of Sub Medical Record and Medical Record staff officers. In this study also has a population and sample consisting of:

#### 1.Population

According to [7], regarding the research population, he argues that "The population is the entire research subject, if the subject is less than 100, then the research is a population study". So the population is the officers at the outpatient service counter.

#### 2.Sample

According to [8], argues that "The sample is part or representative of the population under study". In this study the population acts as a sample because the object is less than 100 people, thus this research is a population study.

#### 3. Variable

##### a. Independent Variable

In this study, the independent variable was the number or color code in the outpatient medical record.

##### b. Dependent variable

In this study the dependent variable is the alignment system of the medical record in R SX

#### Data collection

There are 3 techniques used in this research, among others;

##### a.Library Studies

To get data and information, the writer searches and reads or takes literatures related to this final project.

b. Observation (Observation) and Field Study  
Observation is a planned procedure, which includes

seeing, hearing, and recording the number and level of certain activities or certain situations that have to do with the problem under study.

#### c. Interview

Interview is a method used to collect data, where the researcher gets information or information verbally from someone (officer) or a direct conversation with certain goals with planned questions and answers in an effort to complete the data used.

#### Techniques and Data Analysis Used

In this study, the research method used by the author is a descriptive method, namely research that describes current events and then analyzes them according to the current problem. Based on the descriptive method, the writer intends to provide a systematic description by researching, collecting, compiling and analyzing the problems that are currently happening[9].

## DISCUSSION

Based on the results of research conducted at the Medical Record Installation of Hospital X Bandung, on the use of numeric or color codes for outpatient medical records. Researchers can give an opinion that the activity of using number or color codes in outpatient medical records is not running as it should, this can be proven by the results of observations at the outpatient medical record installation and interviews with the head, outpatient sub-medical record officer.

**Researcher :** Is there an SOP regarding the use of number or color codes in medical records Outpatients at Hospital X Bandung?

**Respondent:** There is no official SOP regarding the use of number or color codes on Outpatient medical records.

**Researcher :** How to use number or color codes in inpatient medical records Walk at X Hospital Bandung?

**Respondent :** Not all outpatient medical records have been assigned a number or color code For new patients are immediately given a number or color code at the time of registration, and for old patients it is still gradual. It is proven by observing the process of assigning a number or color code at the registration counter and then interviewing the registration officer and the outpatient medical record alignment officer .

**Researcher :** What are the obstacles in using number or color codes In the medical records of outpatients at Hospital X Bandung?

**Respondent:** The obstacle that is the constraint is not yet comprehensive use of numeric Codes or color is because the use of this number or color code is still new, the obstacle is that it collides with time and

there is no special officer to paste the number or color code on the old patient's outpatient medical record. It was proven by interviews with the head of the outpatient medical record sub and the outpatient medical record alignment officer.

**Research :** How to deal with the problem of using number or color codes in outpatient medical records at Hospital X Bandung?

**Respondent:** Efforts to deal with obstacles made by the head of the sub-medical record are Participating assisting the outpatient medical record officer by going directly to the field to provide a number or color code on the old patient's outpatient medical record. Evidenced by the author's observations and interviews with the head of the outpatient medical record sub.

## CONCLUSION

There is no official SOP that regulates the use of number or color codes in outpatient medical records because the SOP inauguration process is carried out every 4 years and the last SOP was inaugurated in 2014 so it cannot be officially ratified into the manual. The implementation of the use of number or color codes at Hospital X Bandung began when the old outpatient medical record storage room was moved to the new medical record storage room in mid-2015. Time is the most common obstacle faced by the head of outpatient medical record sub and outpatient medical record officer. Because the system of using number or color codes is still newly implemented, not all outpatient medical records are assigned a number or color code. So it adds to the workload of assigning number or color codes to old patient medical records.

Overcoming the problem The head of the medical record sub and medical record officers increased their workload to attach a number or color code to the outpatient medical record. Because there is no special officer to attach a number or color code to outpatient medical records.

In terms of service, patient visits to Hospital X Bandung are numerous. Using a number or color code in outpatient medical records has a positive impact on patient care. Searching for outpatient medical records becomes faster, more precise, and accurate until the storage returns to the storage shelf Supervision from the head of the outpatient medical record sub is still lacking, because it collides with time and other work. So if there is a serious problem, it must be accommodated first and resolved in the future. In contrast to minor problems, they can be solved right away. The evaluation carried out by the head of the outpatient medical record sub-heading to the outpatient medical record officer is usually carried out once a month.

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