

# Change Management – Recommendations for Successful Electronic Medical Records Implementation

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## Summary

Change is difficult and managing change even more so. With the advent of Electronic Medical Records (EMRs) and the difficulty of its acceptance, understanding physician's attitudes and the psychology of change management is imperative. While many authors describe change management theories, one comes nearest to describing this particularly difficult transition. In 1969, Elizabeth Kübler-Ross wrote her seminal treatise, *On Death and Dying*, detailing the psychological changes terminally ill patients undergo. Her grieving model is a template to examine the impact of change. By following a physician through the EMR maze, understanding the difficulties he/she perceives and developing a plan other change agents are able to use, the paper gives practical recommendations to EMR change management.

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A great many articles and books have been written about change and change management. [1-8, 11, 15] While several have addressed the psychological impact of instituting an EMR on a system level [1, 2], none have looked at this on the individual physician level. Nor have there been specific recommendations on managing physician behavior change. Physicians must accept the physical changes to their environment of new hardware and software products and more intensely, the loss of control that affects how easy or difficult it is for them to make the transition from the century-old use of paper to the 21<sup>st</sup> century use of computers for managing medical care. Like all directional change, this is a difficult road with many barriers along the way.

In 1969, Elizabeth Kübler-Ross produced her seminal treatise, *On Death and Dying* [11]. Dr. Kübler-Ross, a Swiss-born psychiatrist, offered a unique view of change. Her research was in healthcare, developed observing terminally ill patients. D. Zell in his 2003 work, “Organizational Change as a Process of Death, Dying and Rebirth” used this same model to understand change in a university department [12]. A. Daugird recognized many of the same emotions while investigating physician reactions to the health care revolution [13]. And in 2009, W. Hackl observed the emotional response of physicians during the introduction of an EMR [10].

While not implying acceptance of EMRs is equivalent to death and dying, stages to acceptance of change are parallel. Elizabeth Kübler-Ross’ grieving model is a template to examine the impact of change. It can explain much about the emotional behaviors physicians undergo during EMR implementation. Understanding physician’s responses to EMR implementation and understanding how to respond to these emotional states is this paper’s premise.

In her book, Kübler-Ross describes five stages of grieving and acceptance that most terminal patients experience. They are succinct, emotional and represent the very essence of psychological change. Little did Kübler-Ross realize that her findings, while observed and acceded to terminal patients, were translatable and emotionally reproducible in a sizeable number of people coming to grip with any difficult change [9, 12]. In reality, initiation of an EMR is the demise of doing business as usual and changing to an alternative care model.

Kübler-Ross’ stages are denial, anger, bargaining, depression and acceptance. In this paper, each stage is described and how it relates to managing the change necessary to implement an EMR. It also looks at how the change manager should react to the individual in a particular stage with recommendations on how to lead the physician down the road of change. In doing so, it is more likely that acceptance and implementation can more easily be achieved [12].

When an organization, especially a large one, decides to implement an EMR, resistance to change is more prevalent [9] given the sheer number and diversity of physicians within the organization. This differs from a small group practice where the decision to implement an office EMR is usually a unanimous decision given the partner’s financial investment. In a large organization, opinions range from early adopters to laggards. Healthcare change agents understand this diversity and learn to work with physicians at all levels of the continuum.

Dr. Kübler-Ross indicated change occurs through the five stages she described at varying paces. Dai Williams, occupational psychologist, notes, “the [change] process takes longer than most people expect – typically 6-12 months, sometimes longer”[6]. And Daugird notes, it is important to realize that the stages are not necessarily sequential or mutually exclusive [13]. Sittig et al specifically noted in their research that negative emotional responses are by far the most prevalent [9].

In order to describe change behavior, Dr. Kübler-Ross’ expressed stages are illustrated using Dr. Gerrold, a fictional primary care physician. Dr. Gerrold is an amalgam of documented real-life occurrences as observed by the author during EMR implementations. He is used as an example of both the stages physicians pass through and how responding to them can lead to improved EMR adoption.

## Denial

“Denial functions as a buffer after unexpected shocking news, allowing the [person] to collect himself and with time mobilize other, less radical defenses” [14].

Dr. Gerrold is outspoken and frequently a naysayer. It is hard for him to believe that Electronic Medical Records are coming to his hospital. In some sense, it is an affront to him and his fellow practitioners. They seem to fear someone is questioning their quality of care and medical capability. As time goes on, eventually the reality sets in.

**“Depending very much on how a [person] is told, how much time he has to gradually acknowledge the inevitable happening and how he has been prepared throughout life to cope with stressful situations, he will gradually drop his denial ...” [14].**

It is important not to disregard the negative people when managing change. Their negativity can be a powerful opponent. The corollary is that these individuals need compassion, as their defenses are high. With time, they do come around. Marvin Weisbord in *Productive Workplaces* advises “not to force things on someone in denial, but to share information and create an environment where input is welcome.” “We distinguish between change and transition: change occurs outside of the individual; transition occurs within” [15]. Zell notes that sources of resistance to change can include fear of the unknown, disruption of routine, loss of control, loss of face, threat to power and/or security [12].

It is necessary to work with the physician on an ongoing basis, to listen and understand their concerns, mollifying them as best as possible, in the same way one works with anyone receiving bad news.

If there is a lesson learned, it is to be thoughtful on how to deliver the message. While there is no good way to deliver “bad” news, starting communication in small sound bites is a better practice than a big pronouncement. Physicians have been trained to make the patient prepared for the eventual diagnosis, such as the “spot” on the chest x-ray or the “abnormality” on the mammogram. So taking that one step further, if there is anything to learn, it is to gradually and thoughtfully communicate the coming of the EMR and avoid potential shock and antagonism. Small initial group meetings help to answer questions and act as a prelude to a large audience announcement.

## Anger

**“...this anger is displaced in all directions and projected onto the environment at times almost at random” [16].**

On the first day the EMR was introduced at his hospital, Dr. Gerrold walks away from any offered assistance and during ward rounds expostulates to anyone within earshot how upset he is. By day three, he is a little calmer, and agrees to meet with another physician super-user to better learn the system. Dr. Gerrold never shows up. In fact, he fails to attend a second scheduled meeting a few days later. And, he continues to let everyone know how terrible the system is, even though he’s not been trained on it. The second stage, anger, manifests itself both overtly and covertly. Dr. Kübler-Ross notes

**“A [person] who is respected and understood, who is given attention and a little time, will soon lower his voice and reduce his angry demands” [16].**

Hostility was one of the most commonly expressed emotions in Sittig’s research [9]. Acknowledging the anger is a necessary part of the process [16]. It took perseverance and relentless pursuit, but eventually Dr. Gerrold became trained on the EMR. In this situation, it is important to be sympathetic, but persistent. Making help available when the clinician needs it is imperative. By not foisting oneself on the reluctant user, but giving elbow-support makes the user less intimidated and not feeling inane for asking a question. While Dr. Gerrold wasn’t happy, he voiced a multitude of ideas how to make the EMR better. He continually expressed how he would use the system more if his personal recommendations were taken into account. This leads directly into Kübler-Ross’ next stage – bargaining.

## Bargaining

**“...there is a slim chance that [person] may be rewarded for good behavior and be granted a wish for special services”[17].**

Creating lists of all the EMR’s woes is a favorite pastime. If you fix everything on “the list”, the audience is sure to use the system. When changes are made, no increase in utilization occurs [18], it only delays...

**“The bargaining is really an attempt to postpone; it has to include a prize offered ‘for good behavior,’ it also sets a self-imposed ‘deadline’ and it includes an implicit promise that the [person] will not ask for more if this one postponement is granted” [17].**

Dr. Gerrold made many suggestions. He would use the system if it were faster. He would use it if order sets were evidence-based. He would use it if no errors occurred in medication ordering. Although the system speed is not instantaneous, it is at the vendor’s cutting edge for system response times. Interestingly, Dr. Gerrold never participated in development of the evidence-based order sets. And at his institution, medication errors have actually decreased since introduction of the EMR [19]. At the same time, many of his ideas were valuable and taken into account for upcoming enhancement cycles.

“Bargaining allows individuals to reclaim control over the change which releases energy and builds commitment to success”[20]. It is important to listen. It is also important to recognize many of the good ideas that will improve the EMR. Another learning point is to communicate that valuable system enhancement suggestions are appreciated. At the same time it is necessary to note either when they will be done or if they can be done. Listening and responding to ideas gives a sense of ownership and participation to the physician user.

## Depression

Dr. Kübler-Ross’ fourth stage is depression. As she states,

**“If he is allowed to express his sorrow he will find a final acceptance much easier, and he will be grateful to those who can sit with him during the stage of depression without constantly telling him not to be sad” [21].**

Even after several months, Dr. Gerrold sat hunched over the computer, stretching his neck and upper back every few minutes. He didn’t say anything, but body language spoke volumes. He had voiced his disbelief the EMR was coming and had his few angry conversations that no one is going to make him learn how to use the EMR and take precious time away from his patients. He had bargained to put off the implementation so he could get ready. The clinical IT staff encouraged Dr. Gerrold, and he began to look at the EMR as an eventuality. In describing others going through Dr. Gerrold’s stage of change, Zell’s research showed “a sense of sadness often ensues” [12].

**“It is this discrepancy between the [person’s] wishes and readiness and the expectation of those in his environment which causes the greatest grief and turmoil in our [people]” [17].**

Being ready is defined in several ways. While the healthcare system and local hospital administration support the utilization of the EMR, readying the medical staff by garnering support of medical staff leadership is more important. If they don’t see the vision or safety implications, they will not be allies. The expectations of all groups must be aligned. While medical staff and administration may be at odds about other programs or strategies, failure of EMR implementation is certain if they don’t share the same future healthcare image and want to head down the same road. Lack of concordance prolongs the course to acceptance. “As a result of their autonomy and deeply ingrained

patterns of beliefs and behaviors, unless professionals agree with proposed or necessary changes in an organization's core processes, such changes do not occur" [12].

## Acceptance

**"Acceptance should not be mistaken for a happy stage. It is almost void of feelings. It is as if the pain is gone, the struggle is over..." [22].**

With certain incentives in place and some one-on-one assistance, Dr. Gerrold did accept the inevitable. He found that CPOE provided a safer environment for his patients. He is not called for medication order confirmation, as his handwriting is no longer an issue with unit clerks, nurses or pharmacists. He realized his patients receive care more efficiently. When an urgent lab test or x-ray is ordered, they are immediately transmitted to the laboratory or radiology and the test is performed in some cases before he even leaves the ward. "Indeed, the need for a good fit between the EMR and routine clinical practice is recognized as essential" [20]. With practice and a change in his workflow making hospital rounds, he found his time was used more valuably as well. No longer were there clarification calls. He no longer looked for a chart. He is able to access information from home or office and check results before arriving or after leaving the hospital. Managing care can actually be improved [9]. He actually becomes a promoter.

**"We have found two ways of achieving (acceptance) more easily. One kind of [person] will achieve it with little if any help from the environment – except a silent understanding and no interference. Others...may reach a similar state of body and mind when they are given enough time to prepare...They will need more help and understanding from the environment as they struggle through all the previously described stages" [22].**

## Hope

**"The most important communication, perhaps, is the fact that we let him know that we are ready and willing to share some of his concerns" [23].**

While not one of her five stages, Kübler-Ross describes what I label the sixth stage – hope. It is not a stage the physician passes into, rather it is the change agent's or leadership realization stage. Knowing that physicians traverse both feelings and actions associated with each phase and eventually reach acceptance, gives optimism to those guiding down the road of change. While the time frame may be quite lengthy, it is necessary to be patient, knowing it eventually occurs. It is also the change agent's obligation to recognize ways the pain of change can be ameliorated.

**"Keep strong, if possible. In any case, keep cool. Have unlimited patience... Put yourself in his shoes – so as to see things through his eyes." – Basil Henry Liddell Hart [24].**

We don't just walk away declaring victory. There are those new entrants on the EMR trail and those still struggling on the road. Compassion, listening and sympathizing are leadership virtues needed to achieve acceptance and success. These qualities help lessen the pain.

The nirvana called "hope" is achievable incrementally. Having seen physicians move from stage to stage and eventually accept the value of the EMR is heartening. The little wins are what drive change agents – the key word is perseverance. Patience is definitely a virtue in the change business. More importantly, understanding the stages users traverse is as desirable.

## Conclusion

“Rosenthal suggests that the mourning process can be “managed” in part by engaging in actions that “mitigate denial” and by confronting organizational members with the reality of the change” [3]. It is not to be construed that all physicians are contrary or feel that electronic medical records are the scourge of this century. Many in fact embrace it and understand the safety and productivity it can enhance. While these clinicians exist, experience has shown me these are the exception rather than the rule. They more often than not tend to be the “silent minority”, quietly accepting its value.

While physicians experience Kübler-Ross’ five stages during the change from paper to electronic medical record usage, here are lessons learned on how to make a less painful and more successful EMR implement:

1. Listen to the anger and negativity. Don’t assume the naysayer will disappear. In fact it is more likely they will have an audience whose fears must be assuaged.
2. Communicate. You can’t do this enough. Recognize that small sound bites help.
3. Recognize culture. Culture eats strategy for lunch every day. Understand at the beginning that EMR implementation is a cultural shift – as Jim Collins would describe this degree of change: a Big Hairy Audacious Goal [25].
4. Be ready to help. One-on-one at-the-elbow-support will buy you acceptance.
5. Realize bargaining exists. Be prepared to listen, but still hold the line.
6. Obtain medical staff leadership support from the start. They will be a huge ally.
7. Actively listen, both to sympathize and for improvement ideas and suggestions. More importantly, acknowledge when and if changes will be made.
8. Support. Create less angst.
9. Encourage those who have reached acceptance-applaud them for their perseverance.
10. Finally, realize this takes time. You cannot make this change overnight. It is a journey, not a destination.

This is hard work. While it can be a painful process, understanding the progression and how to address the issues each stage brings, can make the transition just a little bit smoother and easier for everyone involved.

### Clinical Relevance Statement

Implementing an Electronic Medical Record is a change process having physical and psychological effects on physicians which parallel accepted theories regarding change within people’s lives. Identifying and nurturing the stages of change assists the physician’s forward movement during Electronic Medical Record implementation.

### Conflict of Interest

No financial or commercial relationships pose a conflict of interest.

### Human Subject Research Approval

No human subjects were involved.

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