



2021 Dijital Hastane Hedeflerimiz ve Yol Haritası

2021 Yılı Online Bölge Çalıştayı

Dr. İlker KÖSE
Sağlık 4.0 (HIMSS Yetkili Kuruluşu)

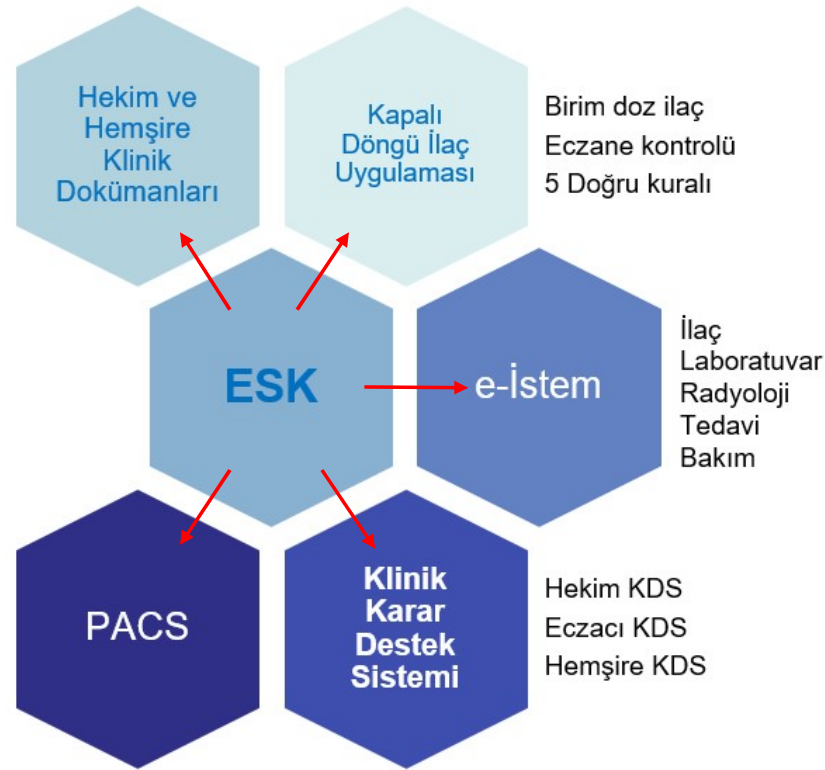




Dijital Hastane Nedir, Ne Kazandırır?



Dijital hastane: ESK'nın «anlamalı kullanımı» (Meaningful Use)





Hemşirelik Dokümanlarında Dijital Dönüşüm

Yatışlı Servislerde Dijital Dönüşümün Etkisi

Hemşirelik formları **2 saat → 40-50 dakika**

Hemşire zamanından **%10,8 ila %13 arasında tasarruf**

1.153 hasta için **22 bin TL kağıt ve toner tasarrufu**

Tez Merkezi 

Ana Sayfa	Tarama	Mevzuat	İstatistikler	SSS	Yasal Uyarı	Bize Ulaştın	YÜKSEK ÖĞRETİM DERGİSİ	Yeni YÖK Projesi
Tarama sonucunda 1 kayıt bulundu.								
Tez No ③	Yazar ③	Yıl ③	Tez Adı (Orijinal/Çeviri) ③	Tez Türü ③	Konu ③			
	Filtrele	2000..2014 =20	Filtrele	Filtrele	Filtrele			
607294	ESRA VOLKAN	2019	Dijital hastane çalışmalarının yatan hasta işlemlerinde sağladığı kağıt tasarrufu ve hemşirelik bakım hizmetlerinin süresine etkisinin analizi <i>Analysis of the effect of digital hospital studies on the duration of paper savings and nursing care services provided in patient procedures</i>	Yüksek Lisans	Sağlık Kurumları Yönetimi = Health Care Management			



Hemşirelik Dokümanlarında Dijital Dönüşüm

Yoğun Bakım Ünitesinde Dijital Dönüşümün Etkisi

Hemşire zamanından **%6,5 ila %9 arasında tasarruf**
22 yataklı bir YBÜ' de **yıllık 32 bin TL kağıt ve toner tasarrufu**

Tez Merkezi 



Ana Sayfa	Tarama	Mevzuat	İstatistikler	SSS	Yasal Uyarı	Bize Ulaşın	YÜKSEK ÖĞRETİM DERGİSİ	Yeni YÖK Projesi
Tarama sonucunda 1 kayıt bulundu.								
Tez No	Yazar	Yıl	Tez Adı (Orijinal/Çeviri)	Tez Türü	Konu			
	Filtrele	2000..2014 =20	Filtrele	Filtrele	Filtrele			
570899	NEVİN YILMAZTÜRK	2019	Yoğun bakım ünitelerinde tıbbi kayıtların dijitalleşmesinin iş süreçlerine etkisi <i>The effect of digitalization of medical records in intensive care units on work processes</i>	Yüksek Lisans	Sağlık Kurumları Yönetimi = Health Care Management ; İşletme = Business Administration			



Hemşirelik Bakımında KDS ile Dijital Dönüşüm

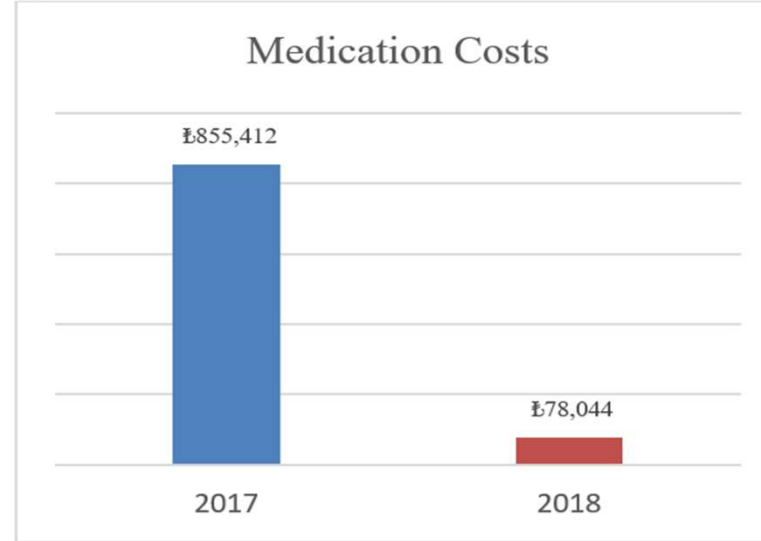
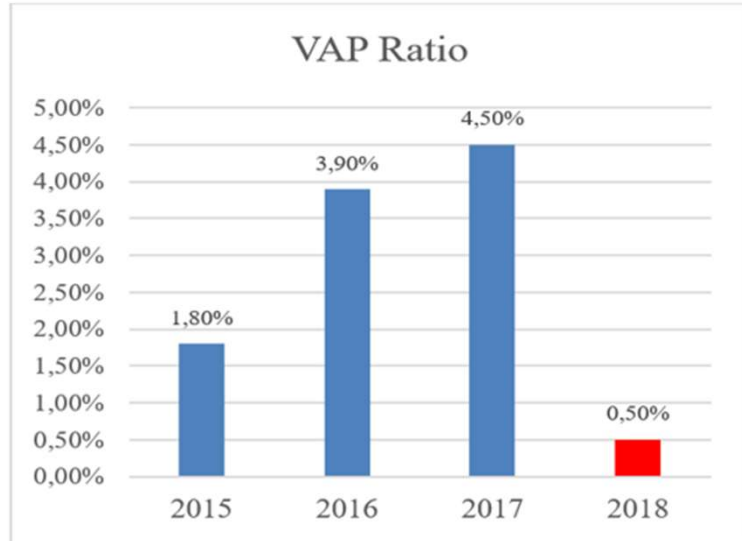
Yoğun Bakım Ünitesinde VIP Vaka Yönetimi

KDS ile tetiklenen ventilasyon bakım paketi sayesinde;

Vaka sayısı: **17 → 2 (%90,87 azalma)**

Vaka oranı: **%4,5 → %0,5**

VİP ilişkili ekstra ilaç maliyeti: **855.000,00 TL → 78.000,00 TL**



The Effects of a Nursing Care Plan Incorporated with a Decision Support System on Ventilator Associated Pneumonia: A Case Study

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Keywords: Ventilator Associated Pneumonia, Nursing Care, Decision Support System, Intensive Care Unit

Abstract: The risk of pneumonia is high in patients who are ventilated in intensive care units (ICUs). Without proper and adequate care, this risk and the mortality rate increase. In a study conducted by the infection committee of our hospital (Erzurum Tıp Fakültesi, the first digital (Step 1) hospital in Turkey in 2016), it was found that the rate of ventilator-associated pneumonia (VAP) cases increased had increased over three years (2015-17) and was well above the national average. In this study, VAP prevalence in our ICU and the associated extra medication costs were calculated. Furthermore, nursing care plans related to VAP were reviewed and improvement were made according to international standards. The care plan was triggered by criteria defined in a clinical decision support system (CDSS) on the hospital information management system (HIS), and monitoring was conducted to ensure that nurses implement the care plan in a comprehensive and timely manner. As a result of the change, the rate of VAP cases, which had risen to 4.5% in 2017, was reduced to 0.5% in 2018. Similarly, we achieved cost reductions of 90.87% for VAP-related extra medications. Based on these results, it can be suggested that CDSS-supported nursing care significantly reduce the risk of VAP and increase patient safety in the ICU.

1 INTRODUCTION

According to a recently published systematic review of VAP, the aims of several studies to identify, prevent, and treat VAP epidemiology were related to the prevention of associated mortality and morbidity, to reduce costs, and to improve the quality of care (Gutierrez et al., 2019). Studies in different countries indicate that the development of VAP in patients increases the duration of ventilator utilization and hospital stay and increases patient care and treatment costs (Gutierrez et al., 2019; Hayashida et al., 2017; Luckins et al., 2018; S et al., 2017). There are many approaches to preventing the development of VAP, such as infection control measures, minimum possible sedation, re-training of health personnel, and using care guidelines (Gutierrez et al., 2019). Alternative VAP care management plans are prepared and recommended by

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Book: O. Gulenc, N. Ozkan, E. Ozkan, I. Koca, and N. Aydin
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<https://www.scitepress.org/PublicationsDetail.aspx?ID=MAOMW/w03ri=&t=1>



E-Order ve KDS ile Dijital Dönüşüm

Yoğun Bakım Ünitesinde TPN Kullanımı

NRS 2002 form sayısında **%95 artış**

TPN order sayısında **%38 azalma**

17 yataklı bir YB' de yıllık **75 bin TL tasarruf...**

Presenting the role of CPOE incorporating with CDSS in decreasing the costs of TPN in ICU: A case study

Ozgur Bolat, Dr¹, Zehra Eraltug, RPh¹, Gizem Uzunoglu, RPh¹, Elife Ozkan, Dr¹, Ilker Kose, Ph.D²,

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Abstract

Total parenteral nutrition (TPN) is the treatment modality of providing intravenous nutrition for patients who cannot get oral feeding. Physicians use standard scales, such as NRS-2002 and NUTRIC, for TPN orders. The usage of NRS-2002 in public hospitals has been mandatory in Turkey since 2015. The quality management department of Izmir Tire Public Hospital recognized that TPN consumption increased dramatically since 2015. The orders, which increased in direct proportion to the number of patients, showed that it should be investigated by evaluating their necessity according to nutritional practice standards. The objective of this study is to research the effect of e-orders incorporated with a clinical decision support system on TPN consumption. We digitalized the NRS-2002 form and added a clinical decision support system to calculate the score and calorie requirements. We found that the total number of NRS-2002 forms completed by physicians increased by 95%, the number of TPN orders decreased by 41%, and the cost decreased by 38% in 2018. This study showed that e-ordering of TPN combined with a clinical decision support system is beneficial for decreasing costs.

Keywords: Parenteral nutrition (PN), Clinical decision support system (CDSS), intensive care unit (ICU), CPOE, HIMSS, EMRAM

Introduction

Parenteral nutrition (PN) is the part of treatment supplying intravenous nutrition to patients when they cannot be fed orally and/or they are unable to meet their required calorie through the enteral path. The malnutrition frequency for such patients is

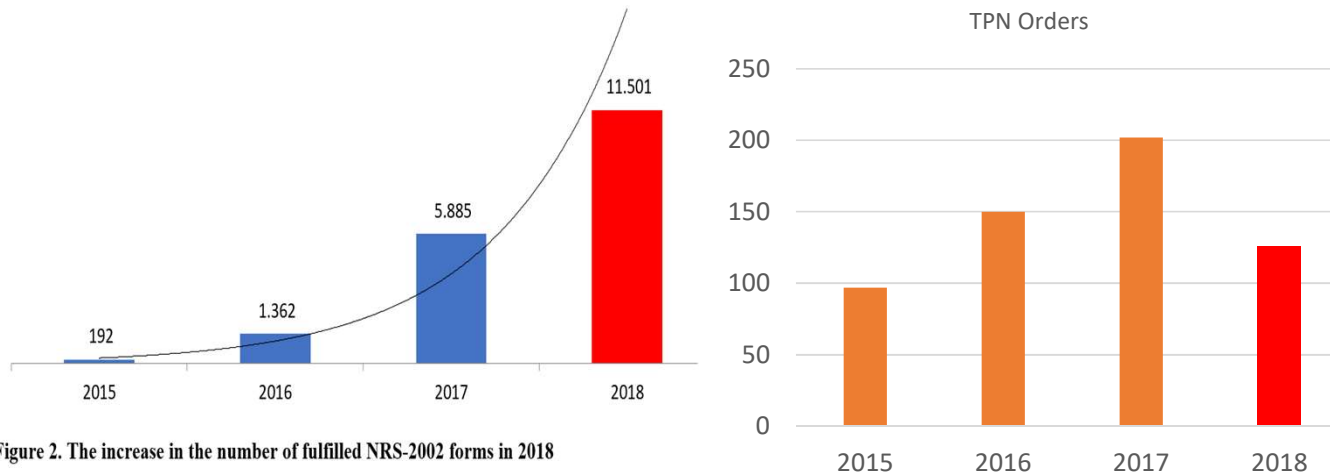


Figure 2. The increase in the number of fulfilled NRS-2002 forms in 2018



İlaç Yönetiminde Dijital Dönüşüm

Kapalı Döngü İlaç Uygulamasının Fatura Kaçağına Etkisi

Faturaya yansımayan ilaç sayısı %4,4 → %0,5

2015'te 101.000 TL'lik fatura kaçağı, 2018'de 16 bin

TL'ye düştü (yıllık ilaç sarfiyatı 2,3 milyondan 3,2 milyona çıkmasına rağmen)

Effect of closed-loop medication administration on medication billing leakage:
A case study

Zehra Eraltug, RPh¹, Gizem Uzunoglu, RPh¹, Ozgur Bolat, Dr¹, Elife Ozkan, Dr¹, Nuran Aydın, Nu/Ph.D.², Ilker Kose, Ph.D.²

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Abstract

Sustainability is one of the critical issues in all healthcare systems. Correct invoicing of the service provided to the payment institution is fundamental for sustainability. Medications dispensed in inpatient facilities make up a considerable share of the total cost, but leaks persist for different reasons. Closed-loop medication administration (CLMA) has been found to provide beneficial consequences for healthcare quality. In this study, we analyzed invoicing leakage of medications dispensed in the inpatient facilities of a public hospital in Turkey. Then we compared the invoicing leakage before and after CLMA implementation. We found that invoicing leakage of medications decreased from 4.4% in 2015 to 0.5% in 2018 when CLMA was implemented entirely. Moreover, despite an increase in the number of drugs ordered in 2018, the loss of revenue due to billing leakage decreased by 83.8%. The results show that CLMA is not only beneficial for healthcare quality but also sustainability.

Introduction

Increased costs and patient expectations are making it more challenging to maintain the sustainability of healthcare systems in all countries. Whether the healthcare system is digitally transformed or not, there are still many gaps to narrow. The sustainability of healthcare systems is dependent on many factors, such as infrastructure, investment requirements, human resources, payment models, service quality, efficiency, patient expectations, patient perception, etc. The hospital costs always have a considerable share in overall healthcare costs in all countries. As such, the sustainability of hospitals is essential for the sustainability of the overall healthcare system. There are many aspects to consider when looking at the efficiency and sustainability of hospitals. While some studies present the benefits of hospital business process management to decrease costs and increase revenue (1), other studies focus on predictive analyses to prevent revenue leakage (2).

Medication management is an essential issue for hospitals that must supply a sufficient volume of pharmaceuticals for diagnosis and treatment protocols (3). Significant economic losses can occur when the medication management processes, including ordering, delivering, and administering the medication, are not correctly planned, implemented, and monitored. Errors such as non-evidence-based prescribing and incorrect or incomplete orders can also increase pharmaceutical costs unnecessarily. Studies have shown that millions of dollars can be saved by improving the quality of orders (4). In addition, nurses can make mistakes in terms of administering the right medication at the right dose to the right patient at the right time using the right route, especially when medication orders are verbal. These errors pose severe risks in terms of patient safety (5-8). Studies have shown that electronic order applications used in conjunction with decision support systems reduce over-use, under-use, and misuse of medications, which are also critical problems for hospitals (9-11).

Medication ordering, administration, and invoicing involves many people and can be difficult to achieve successfully and monitor. Many studies show the benefits of using electronic medication management systems to handle this process. In particular, they provide a significant reduction in the number of incorrect prescriptions (8)(12)(13). The administration of medications through electronic systems also helps to achieve treatment in a shorter time (14). The impact of all these benefits on patient health is becoming more important for hospitals where medications are consumed extensively (15)(16).

Closed-loop medication administration (CLMA) describes a three step process beginning with the physician's medication orders supported by decision support systems (DSS), continuing with a second verification of the medications by the pharmacist, and ending with a checkpoint during bedside medication administration by the nurse regarding the five-right rules (right patient, right medication, right dose, right time, right route) (17). The positive effects of CLMA on health service quality, patient, and medication safety have been presented in many studies (18-



İlaç Yönetiminde Dijital Dönüşüm

Kapalı Döngü İlaç Uygulamasının İlaç İadelerine Etkisi

Kullanılmayan ilaçların iadesinde **%10,74 artış**

Tez Merkezi



Ana Sayfa	Tarama	Mevzuat	İstatistikler	SSS	Yasal Uyarı	Bize Ulaşın	YÜKSEK ÖĞRETİM DERGİSİ	Yeni YÖK Projesi
Tarama sonucunda 1 kayıt bulundu.								
Tez No	Yazar	Yıl	Tez Adı (Orijinal/Çeviri)	Tez Türü	Konu			
567949	ECEBERİL ÖZTÜRK	2019	Hastanelerde yatışlı servislerde kapalı döngü ilaç uygulamasının ilaç iade oranlarına etkisinin araştırılması Analysis of the effect of closed-loop medication administration on drug return rates while hospitalization	Yüksek Lisans	Sağlık Kurumları Yönetimi = Health Care Management			

Eceberil Öztürk et al. Medical Research Archives vol 8 issue 12.

Medical Research Archives

RESEARCH ARTICLE

Effect of Closed Loop Medication Administration on Drug Returns in Inpatient Facilities

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Abstract

Medication management in inpatient facilities is a crucial issue for patient safety. In inpatient conventional drug management, a common problem relates to drugs prescribed and delivered to patients being returned to the pharmacy without reason for the return. When reasons are given, they are not often regularly and correctly recorded. Closed Loop Medication Administration (CLMA) protects patient safety by managing all processes, including intake of the drug to the hospital's stock, administering the drug to the patient, and disposal of unused drugs using technology. CLMA is known to contribute positively to patient safety. However, there is no study on the effect of CLMA on the return of non-administered drugs. This study aims to analyze the effect of CLMA on drug return rates and investigate the data quality of reasons for drug returns. The research was carried out in three inpatient clinics of a Turkish state hospital (Bolu İzzet Baysal Public Hospital) where the CLMA was implemented in May of 2017. The data set obtained from the hospital information system (HIS) is anonymized. The study showed a significant increase in drug return rates after CLMA, and the data quality of drug return reasons is also significantly improved. These results show that CLMA contributes positively to drug return rates and the data quality of drug return reason records.

Keywords: Closed Loop Medication Administration, Drug Return, Digital Hospital, EMRAM

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<https://esmed.org/MRA/mra/article/view/2289>



Klinik Uyarılar ile Dijital Dönüşüm

Yatışlı Servislerde İlaç-Besin Etkileşimi

Toplam **27.455** hasta,
1.451 farklı ilaç,
1.620.573 defa uygulandığı tespit edilmiştir.

Hastaların **581 (%2,1)** tanesine uygulanan **8 (%0,55)** farklı ilacın besinlerle etkileşime girebildiği, bu ilaçların da **8.089** defa **(%0,49)** reçete edildiği tespit edilmiştir.

İlker Köse, et al. *Medical Research Archives* vol 9 issue 2. Medical Research Archives

RESEARCH ARTICLE

Analysis of drug-food interactions in inpatient treatment: A university hospital case

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Summary

Patients' nutrition during inpatient treatment can reduce the pharmacodynamics of drugs. Therefore, monitoring of drug-nutrient interactions is essential for patient safety. Pharmaceutical Data Banks (PDB) databases provide information regarding potential drug-drug, drug-food, and drug-allergy interactions. When Clinical Decision Support Systems (CDSS) are integrated with PDBs, drug-drug and drug-allergy interactions can be prevented when physicians prescribe drugs and when pharmacists evaluate those prescriptions. However, nutrition planning is done by dietitians, and it is not common practice for dietitians to use CDSSs integrated with PDB to access patient prescription information. This study aims to measure drug-food interactions in hospitals where physicians and pharmacists use CDSSs integrated with PDBs. For the most part, dietitians plan patient diets according to the patient's primary disease (diabetes, etc.) and do not access prescription data. We cooperated with a university hospital in Turkey, accredited by HIMSS in 2017 at EMRAM Stage 6, to monitor hospitalized patients for at least one week in 2018. According to the findings, it was determined that 1,451 different drugs were administered 1,620,573 times to a total of 27,455 patients. It was determined that eight (0.55%) different drugs administered to 581 (2.1%) of the patients could interact with food and that these eight drugs were prescribed 8,089 times (0.49%) during the observation period. Although some drug-nutrient interactions were documented due to the study, the number of detected and documented interactions and their severity were relatively low. Precautions taken by dietitians, such as completely removing certain nutrients, like grapefruit, from the diet list, seem to be effective in preventing common interactions. To eliminate drug-nutrient interactions, it will be beneficial for dietitians to access patients' prescribing information and use the CDSS integrated with PDB.

Keywords: Drug-Food Interaction, Pharmaceutical Data Bank, Clinical Decision Support Systems, HIMSS, EMRAM

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<https://esmed.org/MRA/mra/article/view/2345> 10



ESK ve Fonksiyonları ile Dijital Dönüşüm

Türk Hastanelerinde Elektronik Sağlık Kayıtlarının Benimsenme Oranları ve Hastane Büyüklükleriyle İlişkisi

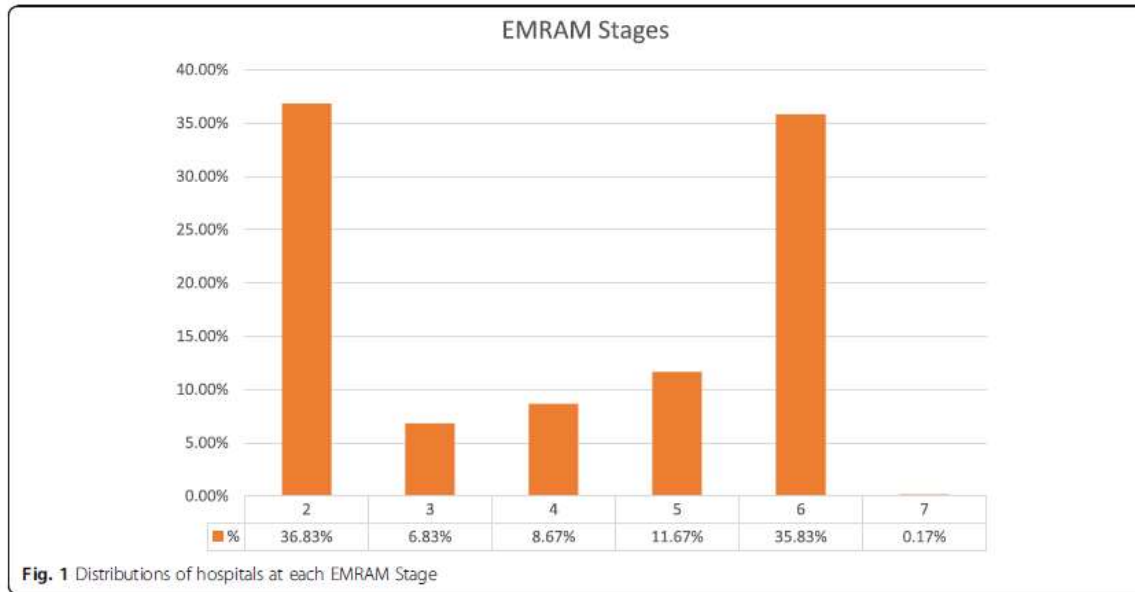


Table 15 Comparison EHR adoption of the USA (in 2017), Korea (in 2017) and Turkey (in 2014–17)

Hospital Size	USA	Korea	Turkey
Basic EHR functions	41.4%	NA	27.1%
Comprehensive EHR functions	39.1%	NA	36%
Hospitals having at least basic EHR functions	80.5%	58.1%	63.1%

Reis et al. BMC Health Services Research (2020) 20:967
https://doi.org/10.1186/s12913-020-05767-5

BMC Health Services Research

RESEARCH ARTICLE

Open Access

Adoption rates of electronic health records in Turkish Hospitals and the relation with hospital sizes

İlker Kose^{1*}, John Rayner², Susayip Birinci³, Mustafa Mahr Uluğ⁴, İsmayıl Yılmaz⁵, Seyma Guner⁶, HIMSS Analytics Team⁶ and Mohi Team⁷

Abstract

Background: Nation-wide adoption of electronic health records (EHR) in hospitals has become a Turkish policy priority in recognition of their benefits in maintaining the overall quality of clinical care. The electronic medical record maturity model (EMRAM), a widely used survey tool developed by the Healthcare Information and Management Systems Society (HIMSS) to measure the rate of adoption of EHR functions in a hospital or a secondary care setting. Turkey completed many standardizations and infrastructural improvement initiatives in the health information technology (IT) domain during the first phase of the Health Transformation Program between 2003 and 2017. Like the United States of America (USA), the Turkish Ministry of Health (MoH) applied a bottom-up approach to adopting EHR in state hospitals. This study aims to measure adoption rates and levels of EHR use in state hospitals in Turkey and investigate any relationship between adoption and use and hospital size.

Methods: EMRAM surveys were completed by 600 (8.9%) state hospitals in Turkey between 2014 and 2017. The availability and prevalence of medical information systems and EHR functions and their use were measured. The association between hospital size and the availability/prevalence of EHR functions was also calculated.

Results: We found that 63.1% of all hospitals in Turkey have at least basic EHR functions and 36% have comprehensive EHR functions, which compares favourably to the results of Korean hospitals in 2017, but unfavourably to the results of US hospitals in 2015 and 2017. Our findings suggest that smaller hospitals are better at adopting certain EHR functions than larger hospitals.

Conclusion: Measuring the overall adoption rates of EHR functions is an emerging approach and a beneficial tool for the strategic management of countries. This study is the first one covering all state hospitals in a country using EMRAM. The bottom-up approach to adopting EHR in state hospitals that was successful in the USA has also been found to be successful in Turkey. The results are used by the Turkish MoH to disseminate the nationwide benefits of EHR functions.

Keywords: Electronic health records, meaningful use, CPOE, PACS, eMAR, CDSS, EMRAM, HIMSS

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<https://bmchealthservices.biomedcentral.com/articles/10.1186/s12913-020-05767-5>



SKS - EMRAM İlişkisi



SKS Perspektifinden EMRAM

SKS-Hastane	HIMSS EMRAM GEREKSİNİMLERİ										
KURUMSAL HİZMETLER	Bilgi Sistemi Varlığı	Cihaz Entegrasyonu	Bilgi Sistemi Kullanımı (%50)	2. Seviye KKDS	Veri Güvenliği	İş Sürekliliği	3. Seviye KKDS	Teknoloji Kullanarak Doğrulama	İş Analitiği	Bilgi Sistemi Kullanımı (%100)	Veriye Dayalı Yönetim Kültürü
SAĞLIK HİZMETLERİ											
Hasta Bakımı	1			3	3	6					
İlaç Yönetimi	1			3	3	6		6			
Enfeksiyonların Önlenmesi							6		7		7
Sterilizasyon Hizmetleri	7		7					7		7	
Transfüzyon Hizmetleri	1			6				6		6	
Radyasyon Güvenliği		1		1						1	
Acil Servis	1		6	6	3	6	6			7	
Ameliyathane	1	7		7	7	7		7		7	
Yoğun Bakım Ünitesi	7	7	7	7	7	7	7	7	7	7	7
Yenidoğan Yoğun Bakım Ünitesi	1		6	6	3	6	6	6		7	
Doğum Hizmetleri	1		6	6	3	6		6		7	
Diyaliz Ünitesi	1		6		3	6				7	
Psikiyatri Hizmetleri	1		6		3	6				7	
Biyokimya Laboratuvarı		1		3	3	6		6		1	
Mikrobiyoloji Laboratuvarı		1		3	3	6		6		1	
Patoloji Laboratuvarı		1		3	3	6		6		1	
Doku Tipleme Laboratuvarı		1		3	3	6		6		1	



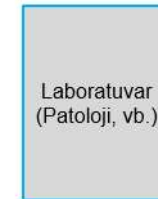
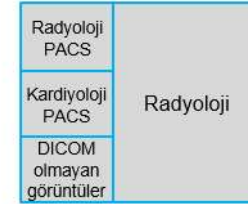
Dijital Hastane Ölçüm Modeli: HIMSS EMRAM



EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 1





EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 2



Karar Destek Sistemi

Seviye 0
Mükerrerlik ve
Çelişki kontrolü

Bilgi Teknolojileri Güvenliği

Veri
merkezi
güvenliği

Kullanıcı
güvenlik
eğitimi

Klinik Veri
Havuzu
(CDR)
Tek oturumla
erişim



Hastane
dışından
erişim



İlaç
etkileşim
kontrolleri

Eczane

Radyoloji
PACS

Kardiyoloji
PACS

DICOM
olmayan
görüntüler

Radyoloji

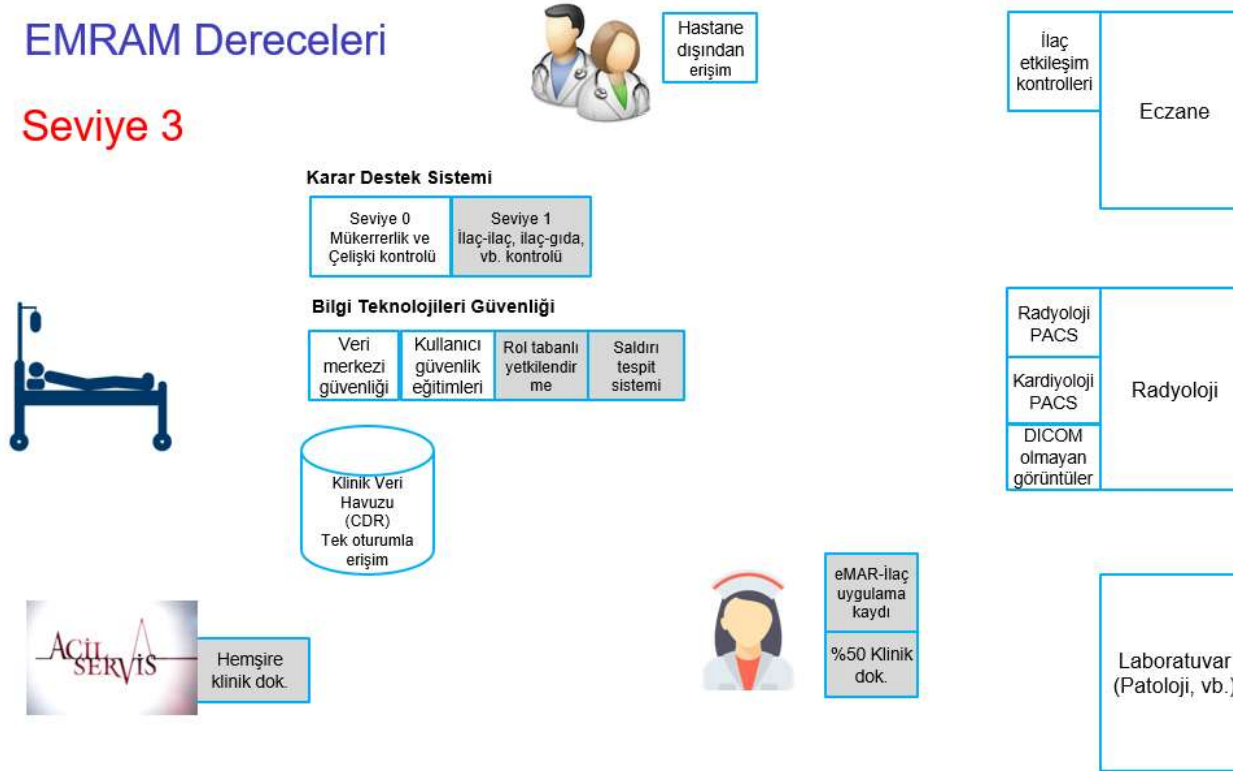
Laboratuvar
(Patoloji, vb.)



EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 3





EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 4



Hastane dışından erişim	%50 Elektronik order
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Karar Destek Sistemi

Seviye 0 Mükerrerlik ve Çelişki kontrolü	Seviye 1 İlaç-ilaç, ilaç-gıda, vb. kontrolü	Seviye 2 Kural motoru ve etkileşimli tedavi önerileri
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Bilgi Teknolojileri Güvenliği

Veri merkezi güvenliği	Kullanıcı güvenlik eğitimleri	Rol tabanlı yetkilendirme	Saldırı tespit sistemi	Ulusal veri tabanları
------------------------	-------------------------------	---------------------------	------------------------	-----------------------



Hemşire Klinik dok.	Elektronik order
------------------------	------------------



eMAR-ilaç uygulama kaydı	Klinik dok.
--------------------------	-------------

ilaç etkileşim kontrolleri	Eczane
----------------------------	--------

Radyoloji PACS	Radyoloji
Kardiyoloji PACS	
DICOM olmayan görüntüler	

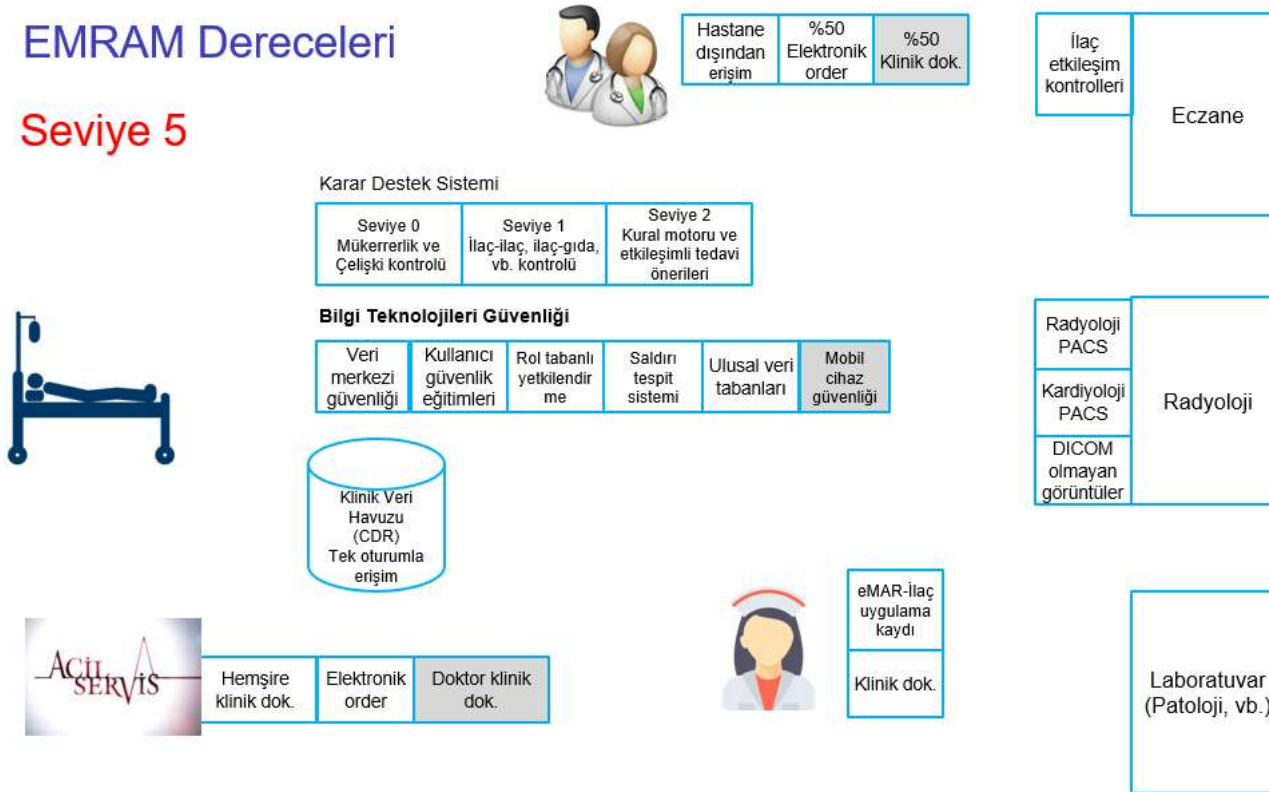
Laboratuvar (Patoloji, vb.)



EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 5





EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 6

%50 İlaç, kan ve kan ürünleri, anne sütü için «5 Doğru» kuralı



EBYS

Karar Destek Sistemi

Seviye 0 Mükerrerlik ve Çelişki kontrolü	Seviye 1 İlaç-ilaç, ilaç-gıda, vb. kontrolü	Seviye 2 Kural motoru ve etkileşimli tedavi önerileri	Seviye 3 Tedavi önerileri ve tedavi uyum kontrolleri
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Bilgi Teknolojileri Güvenliği

Veri merkezi güvenliği	Kullanıcı güvenlik eğitimleri	Rol tabanlı yetkilendirme	Saldırı tespit sistemi	Ulusal veri tabanları	Mobil cihaz güvenliği	Risk analizleri
						İş Sürekliliği Bilgisayarı

Klinik Veri Havuzu (CDR)
Tek oturumla erişim

Yönetici takip ekranlarından geliştirilmiş en az 1 adet sorun çözümü içeren Vaka Çalışması



Hemşire klinik dok.	Elektronik order	Doktor klinik dok.	Kapalı Döngü Ürün
---------------------	------------------	--------------------	-------------------



%50 eMAR-ilaç uygulama kaydı
%50 Klinik dok.
%50 Kapalı döngü ürün



Hastane dışından erişim	%50 Elektronik order	%50 Klinik dok.
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İlaç etkileşim kontrolleri	Eczane
%50 Kapalı Döngü İlaç	

Radyoloji PACS	Radyoloji
Kardiyoloji PACS	
DICOM olmayan görüntüler	

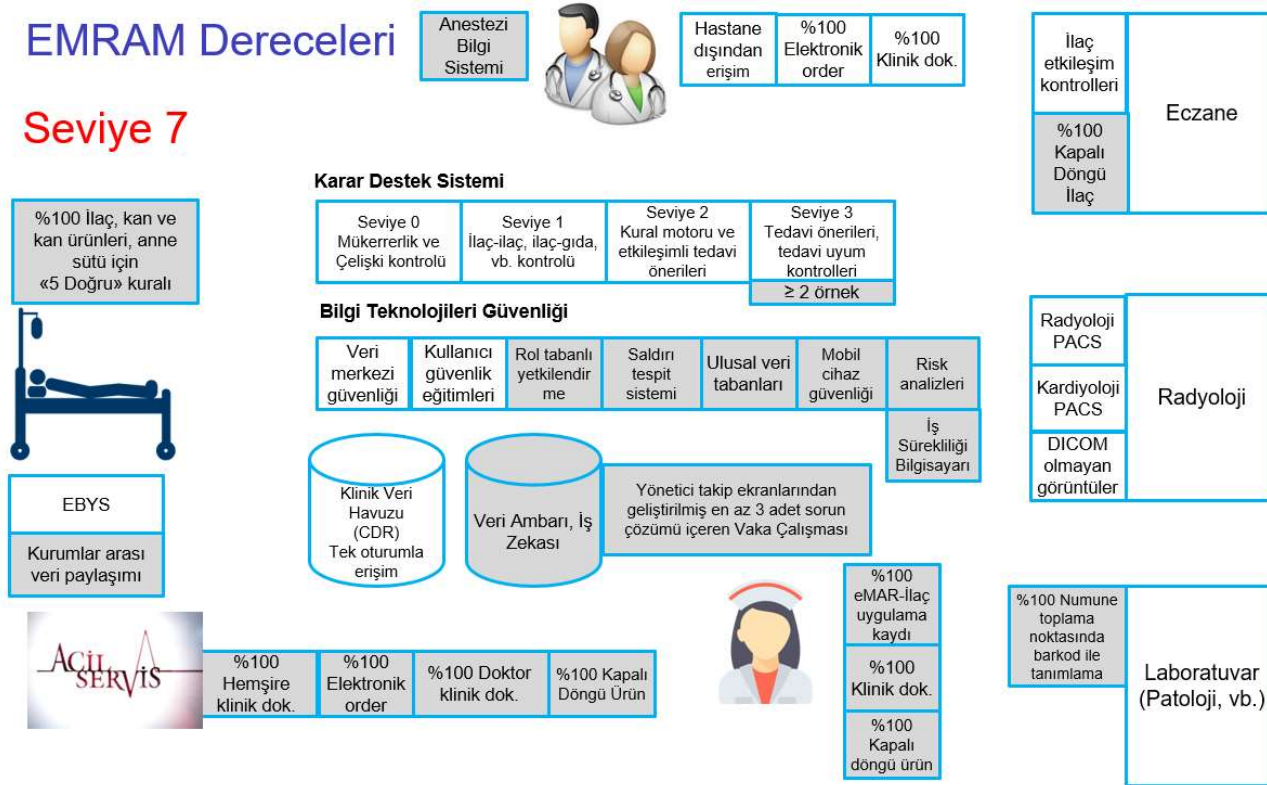
%50 Numune toplama noktasında barkod ile tanımlama	Laboratuvar (Patoloji, vb.)
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EMRAM Seviyeleri

EMRAM Dereceleri

Seviye 7

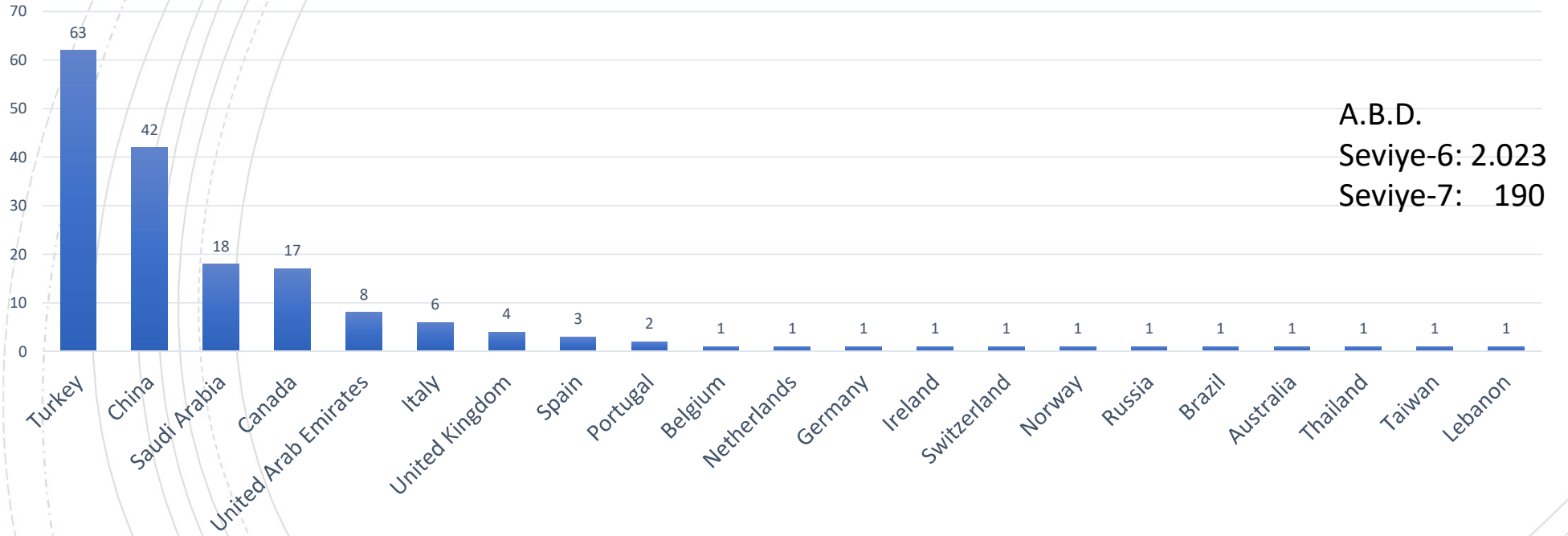




Ne Durumdayız?

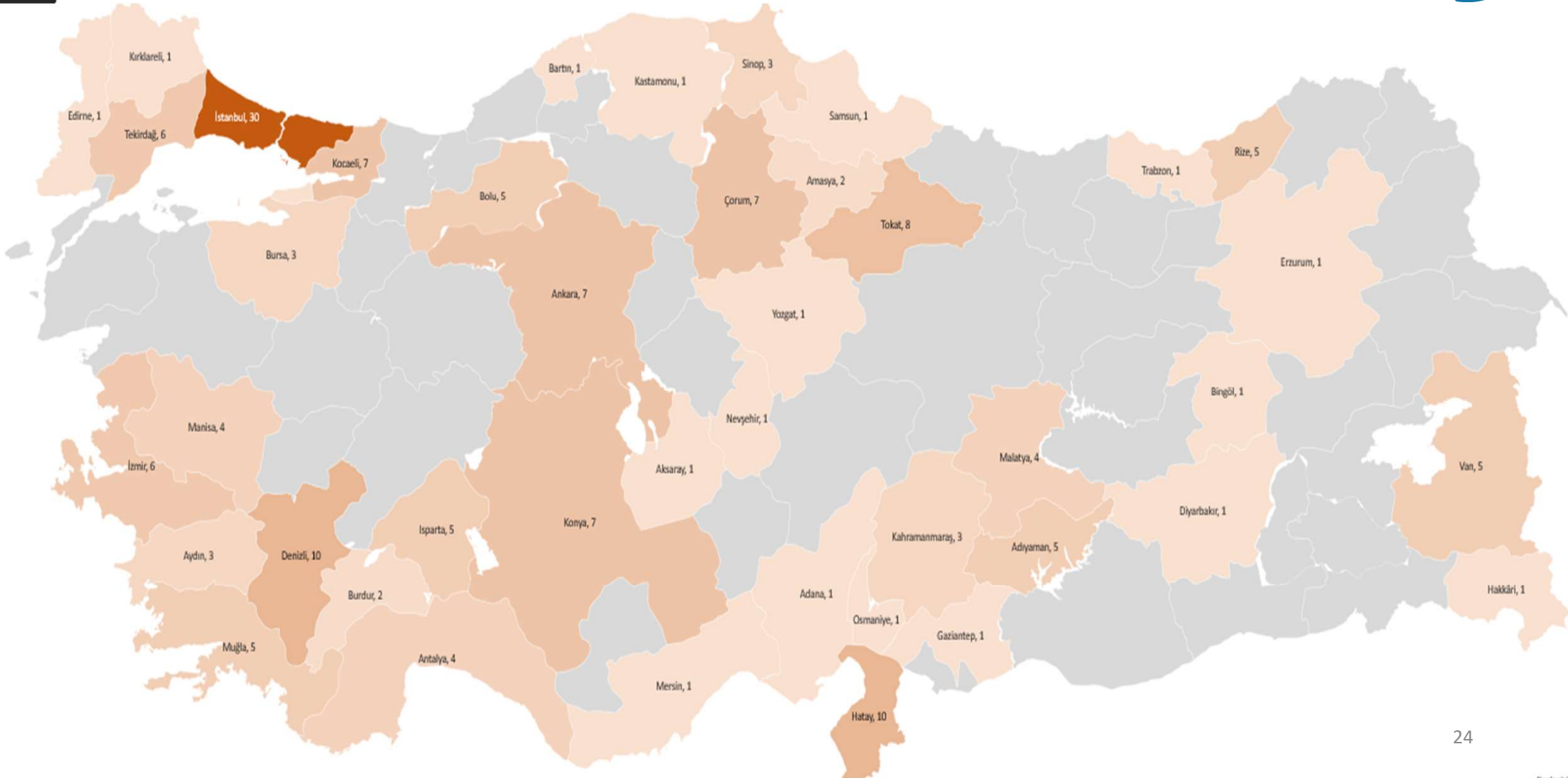
HIMSS Türkiye'nin Dünyadaki Yeri

EMRAM Seviye-6 Hastane Sayıları



<https://www.himssanalytics.org/stage-6-7-achievement>

Ne durumdayız?



Ne durumdayız?

Yıllara göre Seviye 7 validasyonu yapılan hastane sayıları

Hastane Adı	Validasyon Tarihi
İzmir Tire Devlet Hastanesi	26.04.2016 (Re-validasyon: 30.03.2019)
Yozgat Şehir Hastanesi	30.11.2018
İzmir Ödemiş Devlet Hastanesi	28.10.2019
İstanbul Bahçelievler Devlet Hastanesi	05.03.2021



HIMSS Hakkında

HIMSS Türkiye, Kronolojik Sıralama





HIMSS Hakkında



HIMSS kimdir?

Başlangıçta adı Hastane Yönetim Sistemleri Topluluğu (Hospital Management Systems Society) olan HIMSS (Healthcare Information and Management Systems Society), **1961 yılına dayanan bir geçmişe sahip** olan, ABD'de kurulmuş **bir sivil toplum kuruluşudur.**

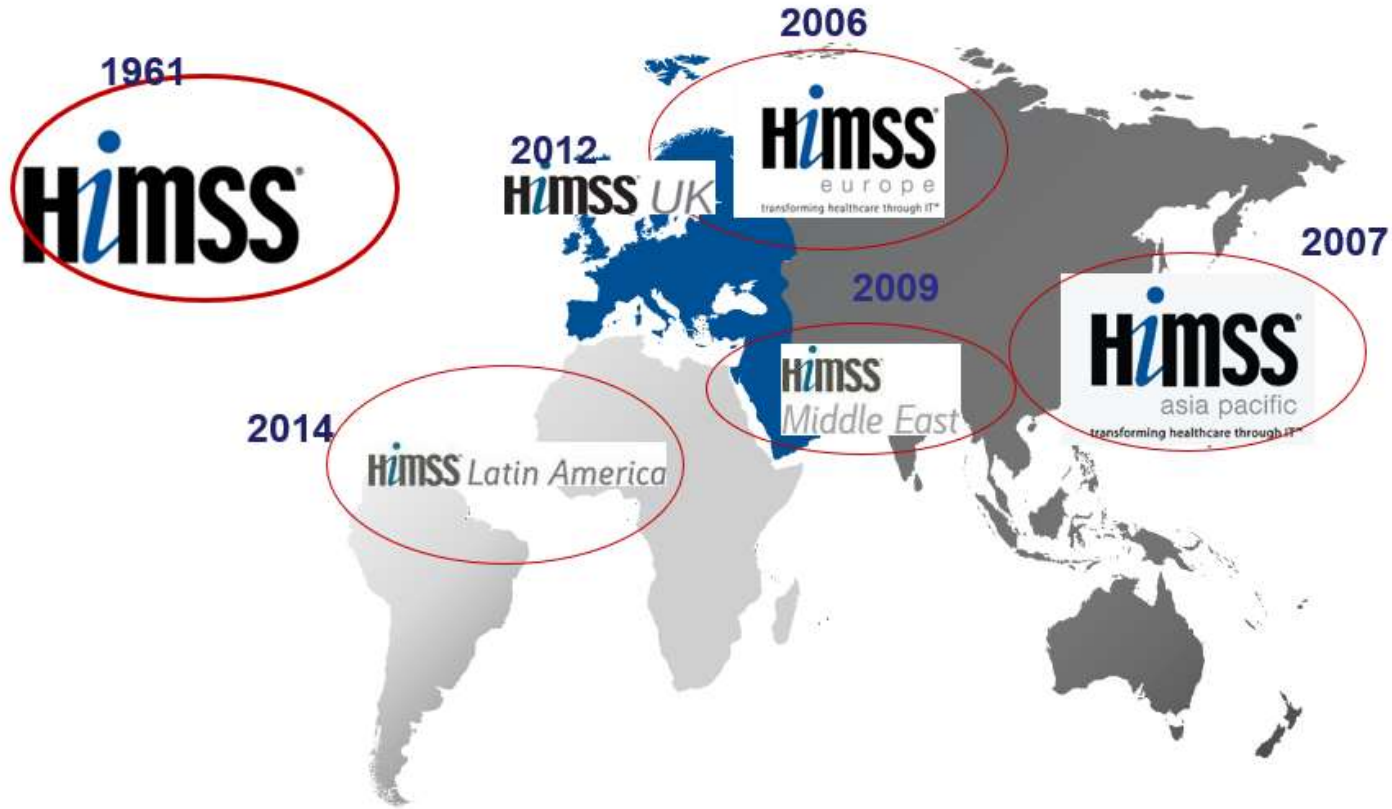
Vizyonu nedir?

Vizyonu, **teknoloji ve bilginin daha iyi kullanımını sağlayarak sağlığı iyileştirmek** tir.



HIMSS Hakkında

HIMSS nerelerde etkin?





HIMSS Hakkında



HIMSS' in kaç tane derecelendirme standardı vardır?

- EMRAM (Yatışlı hizmet veren tedavi merkezleri)
- CCMM (Hastanın tüm tedavi süreçleri)
- AMAM (Analitik kapasite)
- O-EMRAM (Ayakta tedavi merkezleri)
- DIAM (Dijital görüntüleme)
- INFRAM (Bilişim Altyapısı)
- CISOM (Klinik olarak entegre edilen çıktılar)



HIMSS Hakkında

SEVIYE	HIMSS Analytics EMRAM Elektronik Sağlık Kaydı Benimseme Modeli Kabiliyetleri
7	Bütüncül elektronik sağlık kaydı; başka kurumlarla veri alış-verişi; felaket kurtarma merkezi; üst düzey güvenlik ve mahremiyet önlemleri
6	İlaç, kan ürünü ve anne sütü için, teknoloji destekli kapalı döngü uygulama yönetimi; bilgi sistemlerinde risk değerlendirmesi ve raporlanması; kapsamlı klinik karar destek sistemi
5	Yapısal hale getirilmiş doktor klinik formları; sızma tespit ve önleme sistemleri; mobil cihazların korunması
4	Klinik karar destek sistemi ile entegre olan elektronik order kaydı; hemşire ve yardımcı sağlık personeli klinik formları; sistemlerin sürekliliği için temel önlemler
3	Hemşire ve yardımcı sağlık personeli klinik formları; elektronik ilaç tedavi kaydı (yatan hasta); rol tabanlı yetkilendirme
2	Elektronik klinik veri havuzu; hastane içinde birlikte çalışabilen bilgi sistemleri; temel güvenlik önlemleri
1	Üç temel bilgi sisteminin (eczane bilgi sistemi, laboratuvar bilgi sistemi ve görüntüleme bilgi sistemi) hepsi mevcut
0	Üç temel bilgi sisteminden (eczane bilgi sistemi, laboratuvar bilgi sistemi ve görüntüleme bilgi sistemi) hiçbirisi mevcut değil



HIMSS Hakkında



HIMSS'in Sağlık Bakanlığı ile olan protokolünün kapsamı nedir?

- Bakanlık ile HIMSS Avrupa arasında 2019 yılı itibari ile protokol 5 yıllık olarak yenilenmiştir.
- Diğer ülkelerde ücrete tâbi olan **EMRAM ve O-EMRAM değerlendirme anketi üzerinden seviye tespiti ücretsiz olarak sunulmaktadır.**
- Diğer ülkelerde ücrete tâbi olan **HIMSS konferanslarına kayıt, tüm kamu sağlık personeli için ücretsiz olarak sunulmaktadır.**
- Talep eden kurumlar için validasyonlar ve gap analizleri ise AB ülkelerindeki gibi ücretlendirilmektedir.



Sağlık Bakanlığı 2013-17 Stratejik Planı

Dijital hastane kavramını oluşturmak ve Sağlık Bakanlığına bağlı sağlık kurumlarında yaygınlaştırmak

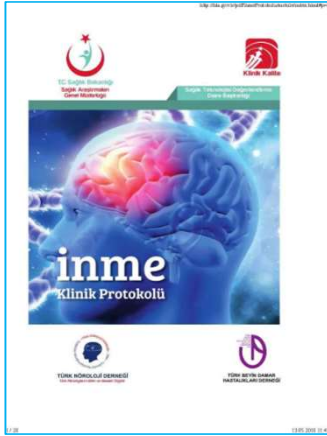
Bakanlığımızın Yeni Hedefleri

- Her ilimizin en az %30'u Seviye 6 olmalı!
- Toplamda en az 200 hastanemiz Seviye 6 olmalı!
- Şehir Hastaneleri ve sağlık turizmi çalışması yapan veya aday olan hastaneler mutlaka Seviye 6 olmalı, ardından da aynı hızla sürdüren tüm istekli hastaneler Seviye 7 için çalışmalı!



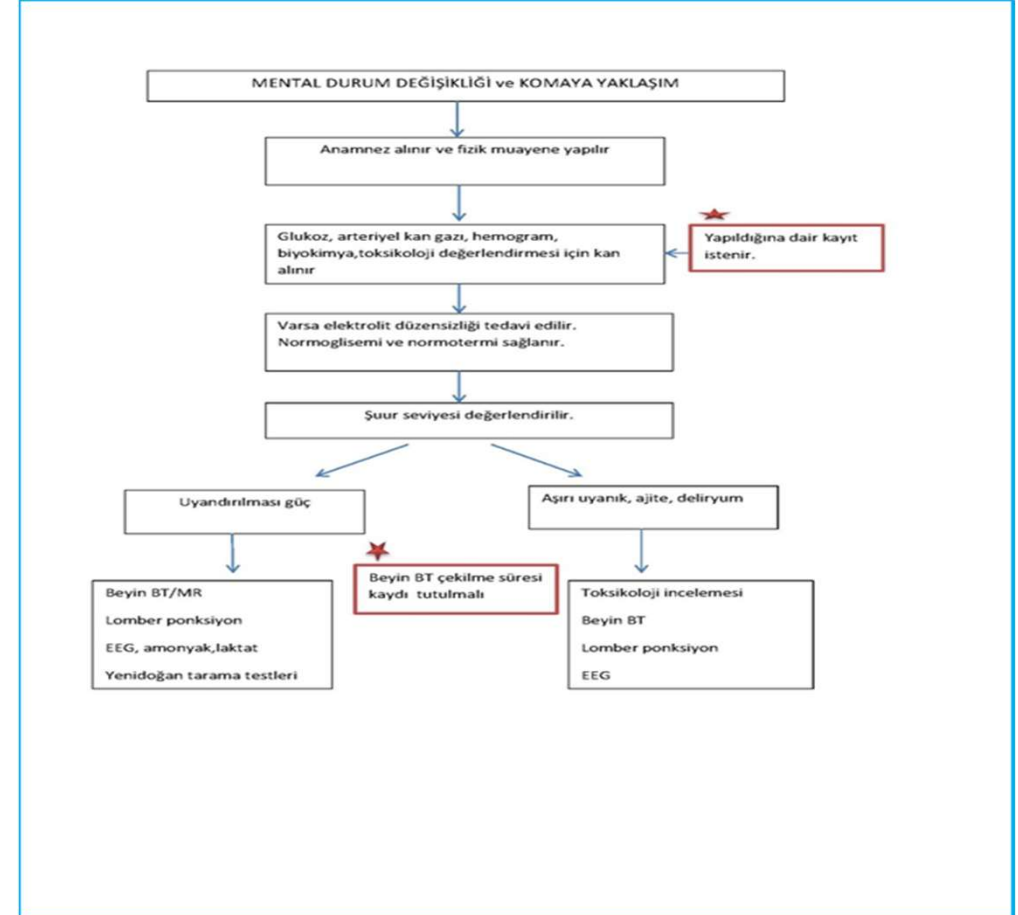
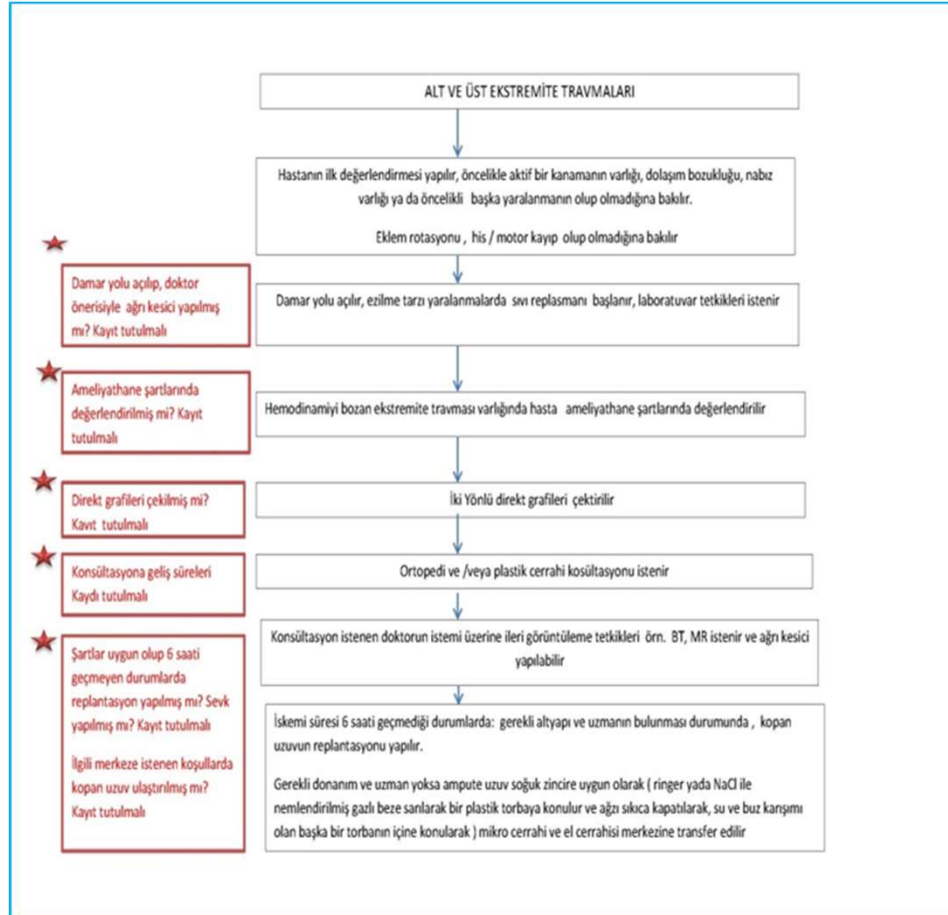
Nasıl Başarabiliriz?

En zorlanılan konulardan biri Klinik Karar Destek Sistemleri(KKDS)





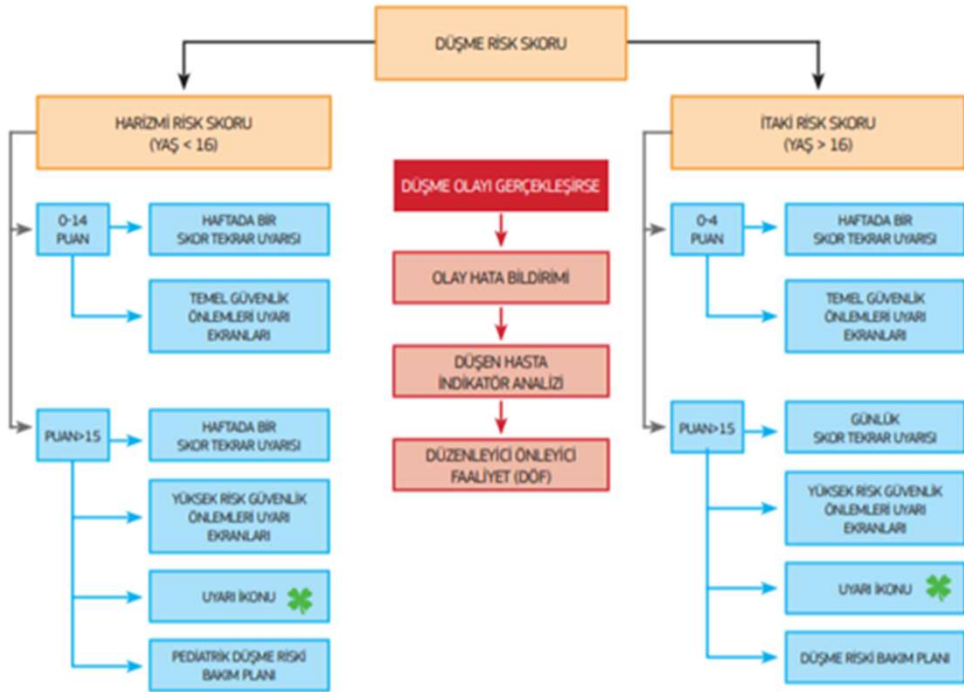
Hekim Klinik Karar Destek Sistemi (KKDS)



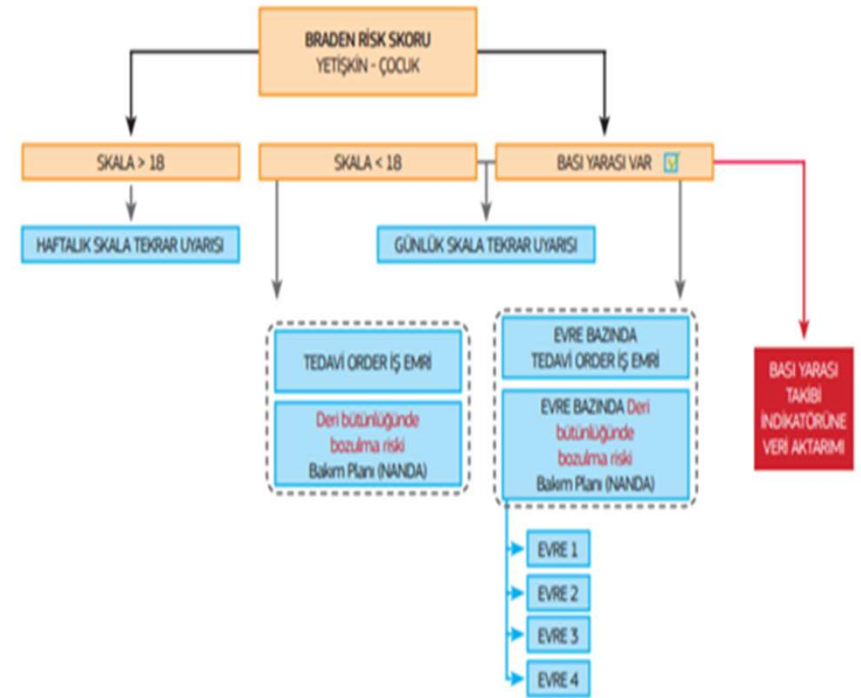


Hemşire Klinik Karar Destek Sistemi (KKDS)

DÜŞME RİSKİ KDS



BASI YARASI KDS





Servislerde Donanım ve Yazılım İhtiyaçları

Birim Doz İlaçlar



**Kapalı Döngü Ürün Yönetimi
Hasta Başı Uygulaması**



Barkod Okuyucular

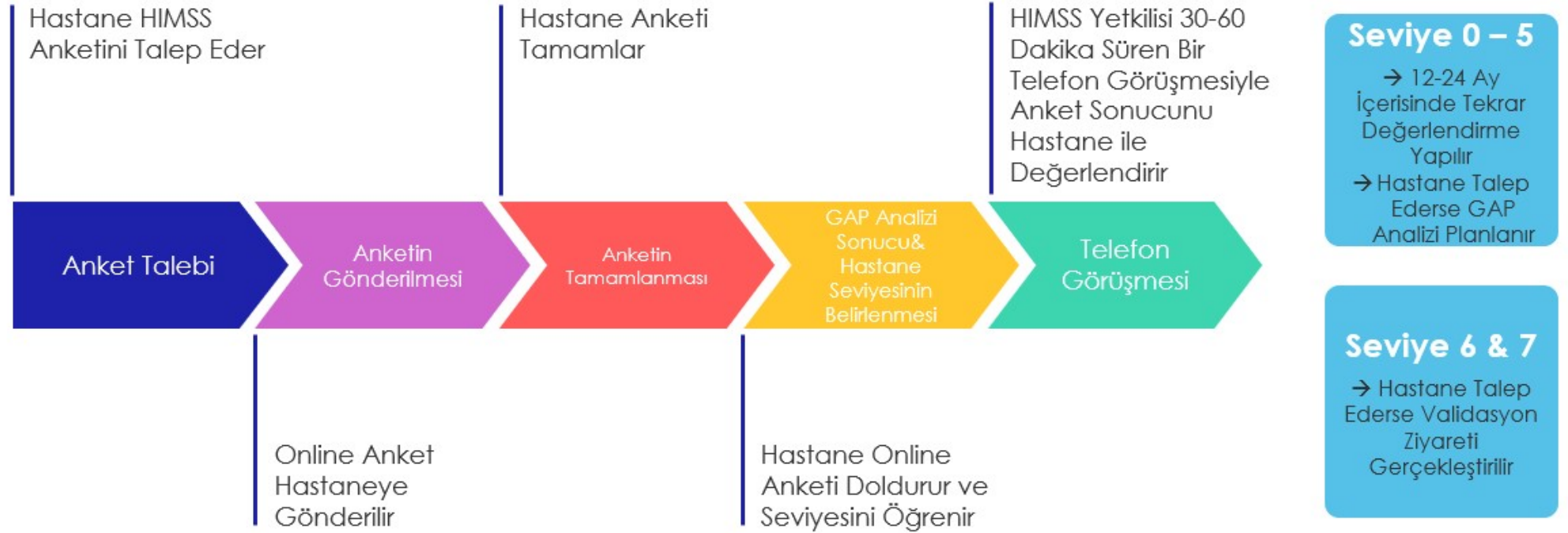


İş Sürekliliği Bilgisayarı





Birlikte Nasıl Başaracağız?







Seviye Belirleme Anketi, Seviye 6/7 Gap Analizi ve Validasyonları İletişim için:

HIMSS Türkiye Direktörü Dr. İlker KÖSE, ikose@saglik40.com.tr

Sinem CECE, scece@saglik40.com.tr , 0542 654 09 02

Özge ELMAS, uelmas@saglik40.com.tr , 0537 781 93 98

Senanur SEYHAN, sseyhan@saglik40.com.tr , 0553 005 26 08

Songül YENER, syener@saglik40.com.tr , 0507 558 05 33

Esra BAYRAKTAR, ebayraktar@saglik40.com.tr , 0536 367 32 68

S.B. Sağlık Bilgi Sistemleri Genel Müdürlüğü HIMSS İrtibat Bilgileri:

Berrin GÜNDÖĞDU, berrin.gundogdu@saglik.gov.tr , 0312 471 83 50

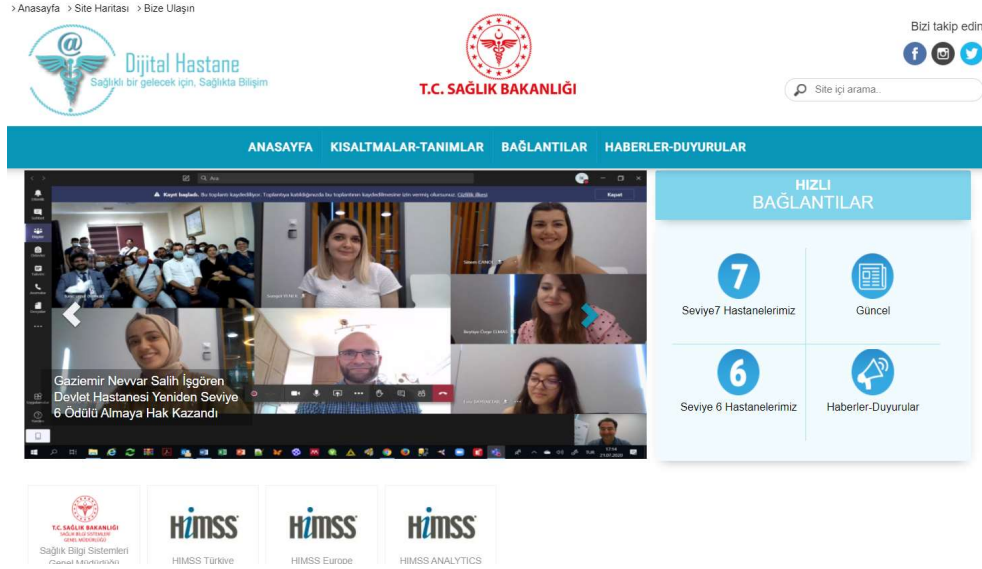
Esra ZEİR, esra.zehir@saglik.gov.tr , 0312 471 83 50



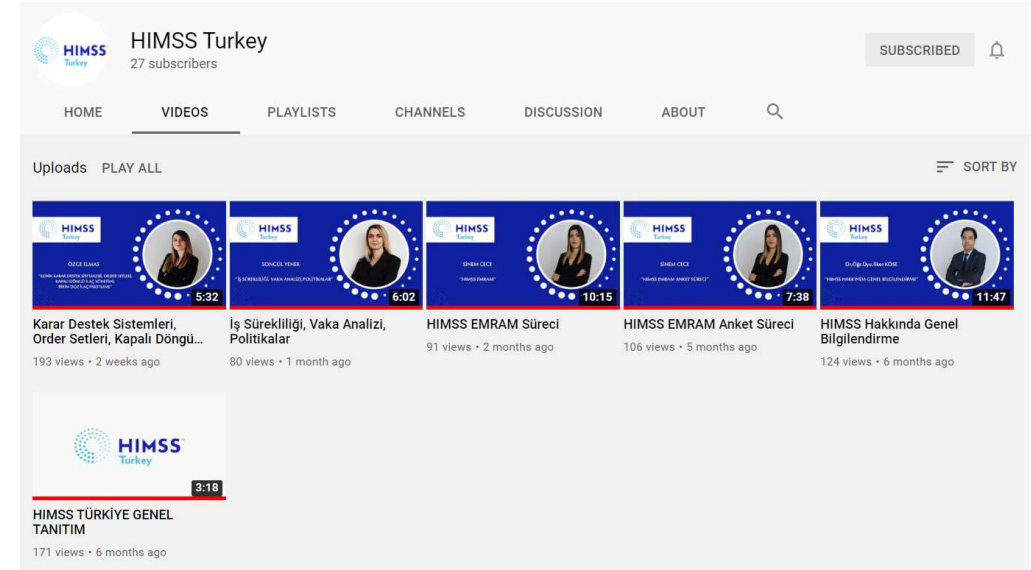
Seviye 6 Validasyonu/Revalidasyonu
ile Seviye 7 Validasyonu için neler
yapmalıyız?



Web Sitelerimiz



<https://dijitalhastane.saglik.gov.tr/>

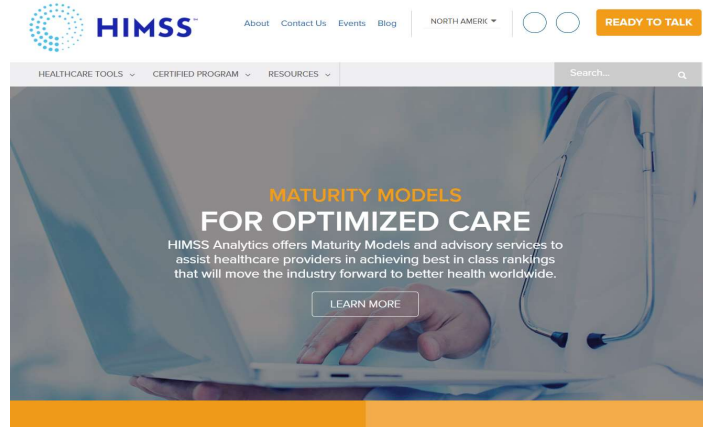


Youtube- HIMSS Turkey

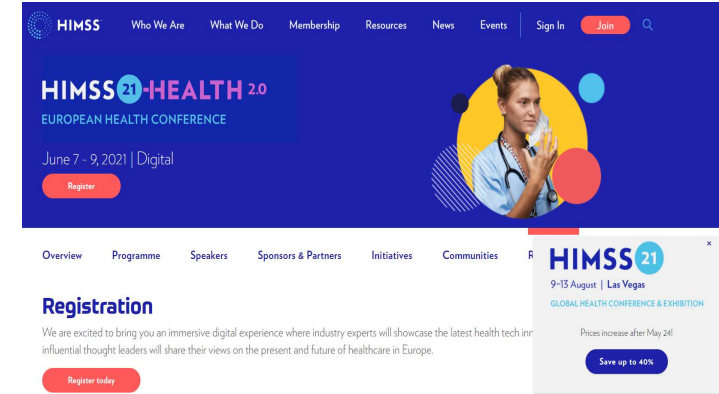
Web Sitelerimiz



<https://himsseurasia.com/>



<https://www.himssanalytics.org/>



HIMSS21 7-9 Haziran Avrupa Sağlık Konferansı

Kayıt için:

https://www.himss.org/event-himss-europe/registration?utm_source=partner&utm_medium=referral&utm_campaign=ghc_europe_digital&utm_content=speaker



Teşekkürler



HIMSS Seviye 6 Çalışma Gr
WhatsApp grubu



HIMSS Seviye 7 Çalışma Gr
WhatsApp grubu

