Journal of Contemporary Issues in Business and Government Vol. 26, No. 2, 2020
https://cibg.org.au/

P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2020.26.02.114

A comprehensive study on public awareness about electronic medical records

MS. K. C. RAJA SHREE[1], SHAMEEM FATHIMA S[2]

[1]Assistant Professor, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai-77
[2]MBA Student, Saveetha School of Management, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai-77
Email ID: rajashreekc.ssm@saveetha.com

Abstract: Electronic Medical Record (EMR) framework is a longitudinal electronic record comprising all patient data. It allows patient data information to keep an advanced clinical report. In others viewpoint, should be a digitalised variant to hospitalised persons clinical report should documented in manual outline.EMRs are something beyond a substitution for paper records. They adequately permit correspondence and coordination among individuals from a medical care group for ideal patient consideration. Digital medical record exploits medical assist regarded a record registered report diverse extensive stretches. An EMR is standard online medical data used by physicians and other healthcare professionals for examination and treatment of patient issues. The frameworks coordinate accurate documentation involved to implement changes in setting appointing, charging, check out. EMR became an important innovation and a tool for record keeping and transferring medical records. Improve quality, security, effectiveness, and decrease health variations. Maintain privacy and confidentiality of patient well-being data. Although patient clinical records are more available and accessible than ever before, processing system upgrades are continually enhancing medical data information workflow and physician-patient interactions.

Keywords: electronic information, accurate documentation, medical care, quality, effectiveness, security, confidentiality, innovation.

INTRODUCTION

Electronic medical record market has been quickened because of feasibility information accessibility over the globe and developing need for a coordinated medical services framework. Also, improved nature of care through EMR usage combined with expanding portions of IT in medical care consumption is filling the development of the electronic clinical record market altogether. Be that as it may, protection and security issues are required to hamper the development of the electronic medical record market. Regulated procuring to resolve the recognizable wellbeing data, and wellbeing documentation report character would be surmised. Medical clinics with enormous spending plans and financing choices will consistently have more influence when settling on a choice in regards to an EMR framework.It surveys specialized and authoritative practices presently being used for ensuring electronic wellbeing data, distinguishes different advances deserving of testing in medical care settings, and diagrams territories for future exploration.EMR patients' record from different sources identified with understanding treatment, data is profoundly limited and it permits just analysis, lab test, history, solution and sensitivities approved clients to get to all patient data accessible that can be gotten to from different destinations inside the inside association. As electronic medical records are utilized increasingly more by specialists' workplaces and emergency clinics, the recurrence of mistakes increments, in this manner expanding clinical negligence claims. Our research idea is based on the rich knowledge acquired by our peer teams across the university.(V. Narayanan, Kannan, and Sreekumar 2009; Anil K. Danda, S, and Chinnaswami 2009; Venugopalan et al. 2014; Anil Kumar Danda and Ravi 2011; Prasanna, Subbarao, and Gutmann 2011; Panchal, Jeevanandan, and Subramanian 2019; Rajeshkumar et al. 2019; Dua et al. 2019; Ezhilarasan, Apoorva, and Ashok Vardhan 2019; Ramesh et al. 2016; Krishnan and Chary 2015; Prasanna Neelakantan et al. 2013; Vinod Narayanan et al. 2012; Ramadurai et al. 2019; Ramakrishnan, Dhanalakshmi, and Subramanian 2019; P. Neelakantan et al. 2011; Prasanna Neelakantan and Sharma 2015; A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar 2020; Priya S et al. 2009; Manivannan, I., Ranganathan, S., Gopalakannan, S. et al. 2018)

REVIEW OF LITERATURE

(Samadbeik et al. 2020) that assortment of preparing techniques, members, areas, procedures and results were portrayed in the examinations. When mixed preparation number utilized techniques in preparing. Scholastic clinical report framework followed regular devices utilized and mixed preparing strategies. The most well-known

results of EMR preparation were identified under Kirkpatrick's substitution would alter including change of students' information aptitudes, mentalities of research.

(Xie et al. 2020) describes a steady development structure introduced to enhance clinical information in both sum and assortment. Coordinating multi-source information to join outer information in sites. Mining expected information as a dependent file. A conclusion continues observing technique to refresh information loads.

(Young et al. 2020) states blunder range discovery as a regular report in the experiment. Numerous pace of registration of finalise as medical facilities. Unregistered range of points are a regular basis of ranges implied as Half robotised observation assemblage intimating enormously diminished the blunders.

(Aldosari 2017)describes EHR incorporates data viewing tolerant consideration, for example, socioeconomics, progress notes, issues, meds, fundamental signs, clinical history, inoculations, lab information, and imaging reports which can be effortlessly gotten to at different destinations to make medical care open for patients.

(Rios and Kavuluru 2019) states that getting the hang of utilizing complexity will twist organizations' advance mark study. Anticipating expressions to be vertices valuable response work summaries. Utilizing two duplicates of burden boundaries, it will be hooked to adapt ,to achieve purpose . Utilizing discussion insert complexity tasks express expectation.

(Kuo 2018) states that investigation shows that a mix model dependent on the IS duration hypothesis with framework qualities from DeLone and McLean IS achievement model gives a ground-breaking clarification of EMRS reception. EMRS clients with high consent to ISM rules while utilizing the framework, which will at that point add to the improvement of EMRS quality and increment the proceeds with utilization of the framework.

(Półchłopek et al. 2020) describes that Electronic Medical Records from general practices can anticipate emotional well-being issues. Including transient examples can improve psychological well-being issue expectation. Scoring technique recognizes prescient examples before mining them. Versatile mining calculation permits covering occasions and including master data. XGBoost accomplishes the best outcomes: affectability above 0.7 and explicitness above 0.6.

(Ayaad et al. 2019) states others take a gander at the impact of usage of EHR's in their Country. Distinguish the nature of medical care administrations' divergence mid embrace hospitalised report clinics. Distinguish how natural electronic clinical records influence the nature of medical care administrations. The exploration suggests expanding the mindfulness about areas and capacity of EMR and its part in improving the nature of wellbeing administration.

(Tapp et al. 2020) describes digital clinic documentation perceptive should reform obstruction to Hepatitis C Human immunodeficiency virus and high range of Hepatitis C and hundred percent of human immunodeficiency virus long suffering would be connected for observation . Depressed intercession descriptive range recommends extra mediations.

(J. Chen et al. 2020) states that Transient and substance data of patient medicines is dissected inside and out. A combination system dependent on multi-see similitude combination strategy is proposed. Three closeness measures from substance, succession, and length are planned. The combination technique is applied on genuine EMRs to extricate run of the mill treatment designs.

(Liu et al. 2020) states that Constipation is a typical narcotic related symptom among medical clinic inpatients. Co-endorsing intestinal medicines with narcotics is prescribed to forestall blockage. Digital clinical reports alter to behave and execute diuretic perceivability. Enriched narcotic endorsing more seasoned medical clinic inpatients.

(Zimmerman et al. 2019) describes that Seriousness is a significant build in medication since it impacts clinical dynamic. Worldwide evaluations of seriousness are better represented while thinking about the seriousness of people's side effects and not simply whether the manifestations are available or missing. Electronic clinicians record indications mellow, extreme as simply available.

(Essuman et al. 2020) states that usaging proper medical services experts is medium. Elements are absence ability, helpless correspondence between clients, cost of EMR assets and offices, absence of specialized work force to introduce and work EMR innovation assets and absence of EMR programming bundles had critical associations regarding information usage. Medical centres regulate empower for enabling clinics to build use of the medical record administrations via preparing representatives to give required assets to improve medical care conveyance in the locale.

(Tsai et al. 2019) describes this examination plan to explore whether the individual attributes of a doctor influence EMR reception. A field study is led with a sum of 217 doctors and the outcomes demonstrate that apparent help level is a significant precursor of saw handiness. PC self-viability, seen hazard, and saw administration level are likewise significant forerunners of saw convenience. This examination is finished up with suggestions for scholastics, emergency clinic directors, governments, and clinical data specialists.

(L. Chen et al. 2018) states that conditions among substance sets are used for aggregate connection characterization. HPI-explicit consistencies about substance pair notices to portray the conditions. Number quadratic programming used to consolidate the delicate normality (limitations). Diverse neighborhood classifiers with IQP for the aggregate order assessed.

(Su et al. 2019) states the principle experiment involved in heart related illnesses vascular disease hazard part of other segregated section reports. Mainly created programmed data extraction of heart related disease hazard part of clinical cases. Segregation framework exploit solid rivalry of great execution would contrasted and exists as a hazard thing separation arrangement of medical data . Trial finalise uncover particular highlights absorption in exhibition of printed characterization profound margins.

(Kalilani et al. 2018) describes the digital clinical report utilized to assess dis command adequacy. More suffered by the public any event for solution should be distinguished. Around 33% of health documenting data computing flexibly. An exceptionally little extent to form convolution utilized as evaluation.

Public awareness about electronic medical record

The aim of this current literature is to inspect the public awareness towards electronic medical records. This includes public awareness about features of electronic medical records . This is done by employing a questionnaire which contains various views with respect to public awareness to be featured in electronic medical records.The Frequency analysis pie chart consists of five variables associated with the demographic profile of respondents such as gender, age, educational qualification and annual income level and occupation in using public. Sample size for this investigation is 82. The data reactions were gathered from people in general.

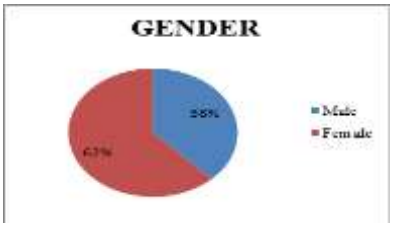

Fig.1: This pie chart describes the percentage values of respondents, that majority of the respondents are female (62%) when compared to smale (38%).

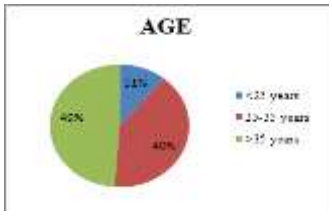

Fig.2: This pie chart depicts that majority of the respondents are above 35 years (49%) followed by 25-35 years (40%) and below 25 years (11%).

Fig.3: This pie chart depicts the education background of respondents. The majority of the educational qualification respondents are Under Graduates (50%) followed by SSLC completed people (31%), Post Graduates (12%) and others (50%).

Fig.4: This pie chart describes the annual income level of respondents. The majority of the respondents have 1-5 lakhs (42%) of annual income level followed by income level of above 5 lakhs (34%) and below 1 lakh (24%).

Fig.5: This pie chart depicts the occupation of respondents. The majority of the occupation respondents are government employees (33%) followed by other (27%) business (23%) and private employees (17%).

Table 1: Mean analysis

S. No	Public Awareness about Electronic Medical Record	Mean	Rank
1	Through EMR patients will have quick access to their medical records (Quick Access)	2.02	14
2	It provides accurate information about patients (Accuracy)	2.10	13
3	It reduces cost due to decreased paperwork (Cost Reduction)	2.26	8

4	It enhances privacy and security of patient data (Privacy)	2.22	10
5	It helps in improved diagnosis and treatment (Improvement)	2.34	3
6	It saves time (Save Time)	1.79	15
7	It improves patient communication and provider interaction as well as healthcare convenience (Patient Communication)	2.41	2
8	It reduces medical error, duplication of testing and provide safer care (Safe Care)	2.33	4
9	Electronic medical record can be a tool for preventive health (Preventive Tool)	2.28	6
10	Advanced e-prescribing and clinical documentation capabilities are possible (E-Prescribing)	2.17	12
11	Electronic glitches may occur (Electronic Glitches)	2.44	1
12	Better clinical dynamic by incorporating tolerant data from numerous sources is conceivable (Clinical Decision Making)	2.24	9
13	It empowers secure sharing of electronic data with patients and different clinicians (Secured Information)	2.30	5
14	It helps in promoting streamlined coding and billing (Technology Device)	2.27	7
15	Space saving capability can be enabled through digital record environment (Space Saving)	2.21	11

Table 1 displays the mean values for 15 variables. It is evident from mean analysis table that the Electronic Glitches variable posses highest mean value followed by other variables such as Patient Communication, Improvement, Safe Care, Secured Information, Preventive Tool, Technology device, Cost Reduction, Clinical Decision Making, Privacy, Space Saving, E-Prescribing, Accuracy, Quick Access and Save Time. So it is implied, respondents feel that electronic glitches may occur while using electronic medical records. Table 3 depicts **f**actor analysis which is performed to measure the relationship among variables within the assumed constructs. In this section, we examine the data adequacy for conducting factor analysis by using KMO and Barlett's test.

Table 2: KMO and Bartlett's test

Kaiser-Meyer-Olkin-Measure of Sampling Adequacy		0.807
Bartlett's Test of Sphericity	**Approx. Chi-Square**	434.153
	Df	105
	Sig	**.**000

Table 2 demonstrates KMO and significance value. If the KMO value is >0.6 and significant level is at 1%, it indicates that the given information is palatable for leading component investigation. Here KMO esteem is 0.807 and along these lines, if information is palatable for directing element examination.

Table 3: Total Variance Explained

Component	**Initial Eigenvalues**			**Rotated Sums of Squared Loadings**		
	Total	**% of Variance**	**Cumulative**	**Total**	**% of Variance**	**Cumulative%**
1	5.491	36.604	36.604	2.884	19.226	19.226
2	1.580	10.534	47.138	2.494	16.629	35.855
3	1.194	7.961	55.100	2.127	14.178	50.033
4	1.064	7.095	62.195	1.824	12.162	62.195
5	0.918	6.120	68.315			
6	0.749	4.994	73.309			
7	0.656	4.373	77.682			
8	0.645	4.302	81.985			
9	0.593	3.956	85.940			
10	0.518	3.453	89.393			
11	0.444	2.959	92.352			
12	0.373	2.490	94.841			
13	0.314	2.093	96.935			
14	0.265	1.770	98.704			
15	0.194	1.296	100.00			

It is evident from the table that with the help of factor analysis fifteen variables have been grouped into four factors and all together they explain 62.1% of variance.

Table 4: Rotated Component Matrix

S. No	**Public Awareness about Electronic Medical Record**	**Components**			
		1	**2**	**3**	**4**
1	Through EMR patients will have quick access to their medical records (Quick Access)	0.654	-	-	-
2	It provides accurate information about patients (Accuracy)	0.688	-		

3	It reduces cost due to decreased paperwork (Cost Reduction)	0.474	-	-	-
4	It enhances privacy and security of patient data (Privacy)	0.643			
5	It helps in improved diagnosis and treatment (Improvement)	0.599			
6	It saves time (Save Time)	0.758			
7	It improves patient communication and provider interaction as well as healthcare convenience (Patient Communication)	-	0.862	-	
8	It reduces medical error, duplication of testing and provide safer care (Safe Care)		0.597		
9	Electronic medical record can be a tool for preventive health (Preventive Tool)		0.574		
10	Advanced e-prescribing and clinical documentation capabilities are possible (E-Prescribing)			0.627	
11	Electronic glitches may occur (Electronic Glitches)			0.774	
12	Better clinical dynamic by incorporating tolerant data from numerous sources is conceivable (Clinical Decision Making)			0.715	
13	It empowers secure sharing of electronic data with patients and different clinicians (Secured Information)				0.790
14	It helps in promoting streamlined coding and billing (Technology Device)				0.473
15	Space saving capability can be enabled through digital record environment (Space Saving)				0.715

It is observed from the table that the variables are categorized into four components and they are named as Advancements, Error Reduction, Decision making and Confidential. The Advancements component comprises of Quick Access, Accuracy, Cost Reduction, Privacy, Improvement, and Save Time. The Error Reduction component comprises a Patient Communication, Safe Care and Preventive Tool. The Decision Making component comprises of E-Prescribing, Electronic Glitches and Clinical Decision Making. The Confidential component comprises a Secured Information, Technology Device and Space Saving. Table 6 measures the Advancements, Error Reduction, Decision making and Confidential with demographic profile of respondents by using ANOVA.

Table 5: ANOVA

S.NO	VARIABLE	F	SIG
1	Advancements vs Age Group	3.257	0.044
2	Advancements vs Educational Qualification	4.064	0.010
3	Advancements vs Annual Income Level	0.107	0.899
4	Advancements vs Occupation	1.904	0.136
5	Error Reduction vs Age Group	3.940	0.023
6	Error Reduction vs Educational Qualification	3.505	0.019
7	Error Reduction vs Annual Income Level	0.045	0.956
8	Error Reduction vs Occupation	0.842	0.475
9	Decision Making vs Age Group	1.865	0.162
10	Decision Making vs Educational Qualification	1.313	0.276
11	Decision Making vs Annual Income Level	2.687	0.074
12	Decision Making vs Occupation	0.335	0.800
13	Confidential vs Age Group	1.162	0.318
14	Confidential vs Educational Qualification	1.548	0.209
15	Confidential vs Annual Income Level	0.360	0.699
16	Confidential vs Occupation	0.358	0.783

Table 5 shows F and Significance values. It is obvious from the table that critical worth is >0.05%. Henceforth, acknowledge invalid theory i.e there is no distinctionAdvancements, Error Reduction, Decision making and Confidential when compared to demographic profile, age group and educational qualification of respondents which shows that it accepts alternate hypothesis.

CONCLUSION

In digitised clinical report, the systematized collective information from patient data and electronically stored clinical information in a digital format.Due to the digital electronic patient information being easily accessible and in a single file, EMRs are highly efficient when extracting patient data for the diagnosis of systematic trends and cost efficiency in hospitals. While documenting patient medical data that makes the individual patient controls and may available to health care providers to examine issues.Adoption of EMR can improve quality standard care by using the information data and analytics to forbid hospitalizations among high-risk patients. Public also slightly aware about the electronic medical records features.

REFERENCES

1. A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar. 2020. "Anticancer Activity of Silver Nanoparticles Synthesized Using Aqueous Fruit Shell Extract of Tamarindus Indica on MCF-7 Human Breast Cancer Cell Line." *Journal of Drug Delivery Science and Technology* 55 (February). https://doi.org/10.1016/j.jddst.2019.101376.
2. Aldosari, Bakheet. 2017. "Patients' Safety in the Era of EMR/EHR Automation." *Informatics in Medicine Unlocked* 9 (January): 230–33.
3. Ayaad, Omar, Aladeen Alloubani, Eyad Abu ALhajaa, Mohammad Farhan, Sami Abuseif, Ahmad Al Hroub, and Laila Akhu-Zaheya. 2019. "The Role of Electronic Medical Records in Improving the Quality of Health Care Services: Comparative Study." *International Journal of Medical Informatics* 127 (July): 63–67.
4. Chen, Jingfeng, Leilei Sun, Chonghui Guo, and Yanming Xie. 2020. "A Fusion Framework to Extract Typical Treatment Patterns from Electronic Medical Records." *Artificial Intelligence in Medicine* 103 (March): 101782.
5. Chen, Li, Yuanju Li, Weipeng Chen, Xinglong Liu, Zhonghua Yu, and Siyuan Zhang. 2018. "Utilizing Soft Constraints to Enhance Medical Relation Extraction from the History of Present Illness in Electronic Medical Records." *Journal of Biomedical Informatics* 87 (November): 108–17.
6. Danda, Anil K., Ramkumar S, and Ravindran Chinnaswami. 2009. "Comparison of Gap Arthroplasty with and without a Temporalis Muscle Flap for the Treatment of Ankylosis." *Journal of Oral and Maxillofacial Surgery: Official Journal of the American Association of Oral and Maxillofacial Surgeons* 67 (7): 1425–31.
7. Danda, Anil Kumar, and Poornima Ravi. 2011. "Effectiveness of Postoperative Antibiotics in Orthognathic Surgery: A Meta-Analysis." *Journal of Oral and Maxillofacial Surgery: Official Journal of the American Association of Oral and Maxillofacial Surgeons* 69 (10): 2650–56.
8. Dua, Kamal, Ridhima Wadhwa, Gautam Singhvi, Vamshikrishna Rapalli, Shakti Dhar Shukla, Madhur D. Shastri, Gaurav Gupta, et al. 2019. "The Potential of siRNA Based Drug Delivery in Respiratory Disorders: Recent Advances and Progress." *Drug Development Research* 80 (6): 714–30.
9. Essuman, Lawrence R., Daniel Apaak, Edward W. Ansah, Francis Sambah, Joyce E. Ansah, Mercy Opare, and Bright Opoku Ahinkorah. 2020. "Factors Associated with the Utilization of Electronic Medical Records in the Eastern Region of Ghana." *Health Policy and Technology* 9 (3): 362–67.
10. Ezhilarasan, Devaraj, Velluru S. Apoorva, and Nandhigam Ashok Vardhan. 2019. "Syzygium Cumini Extract Induced Reactive Oxygen Species-Mediated Apoptosis in Human Oral Squamous Carcinoma Cells." *Journal of Oral Pathology & Medicine: Official Publication of the International Association of Oral Pathologists and the American Academy of Oral Pathology* 48 (2): 115–21.
11. Kalilani, Linda, Rachel Halpern, Jerald Seare, and Peter Dedeken. 2018. "The Challenges of Assessing Effectiveness of Lacosamide Using Electronic Medical Record Databases." *Epilepsy & Behavior: E&B* 85 (August): 195–99.
12. Krishnan, Raman, and Krishnan Vengadaragava Chary. 2015. "A Rare Case Modafinil Dependence." *Journal of Pharmacology & Pharmacotherapeutics* 6 (1): 49–50.
13. Kuo, Ren-Zong. 2018. "EMRS Adoption: Exploring the Effects of Information Security Management Awareness and Perceived Service Quality." *Health Policy and Technology* 7 (4): 365–73.
14. Liu, Shania, Danijela Gnjidic, Asad E. Patanwala, George Rubin, Manuel Nielsen, and Jonathan Penm. 2020. "Effect of an Electronic Medical Record Design Modification on Laxative Co-Prescribing among Hospitalised Patients Taking Opioids: A before-and-after Study." *International Journal of Medical Informatics* 140 (August): 104172.
15. Manivannan, I., Ranganathan, S., Gopalakannan, S. et al. 2018. "Mechanical Properties and Tribological Behavior of Al6061–SiC–Gr Self-Lubricating Hybrid Nanocomposites." *Trans Indian Inst Met* 71: 1897–1911.
16. Narayanan, Vinod, Ashok Ramadorai, Poornima Ravi, and Natarajan Nirvikalpa. 2012. "Transmasseteric Anterior Parotid Approach for Condylar Fractures: Experience of 129 Cases." *The British Journal of Oral & Maxillofacial Surgery* 50 (5): 420–24.
17. Narayanan, V., R. Kannan, and K. Sreekumar. 2009. "Retromandibular Approach for Reduction and Fixation of Mandibular Condylar Fractures: A Clinical Experience." *International Journal of Oral and Maxillofacial Surgery* 38 (8): 835–39.
18. Neelakantan, P., S. John, S. Anand, N. Sureshbabu, and C. Subbarao. 2011. "Fluoride Release from a New Glass-Ionomer Cement." *Operative Dentistry* 36 (1): 80–85.
19. Neelakantan, Prasanna, and Subash Sharma. 2015. "Pain after Single-Visit Root Canal Treatment with Two Single-File Systems Based on Different Kinematics--a Prospective Randomized Multicenter Clinical Study." *Clinical Oral Investigations* 19 (9): 2211–17.
20. Neelakantan, Prasanna, Chandana Subbarao, Subash Sharma, Chandragiri Venkata Subbarao, Franklin Garcia-Godoy, and James L. Gutmann. 2013. "Effectiveness of Curcumin against Enterococcus Faecalis

Biofilm." *Acta Odontologica Scandinavica* 71 (6): 1453–57.
21. Panchal, V., G. Jeevanandan, and E. M. G. Subramanian. 2019. "Comparison of Post-Operative Pain after Root Canal Instrumentation with Hand K-Files, H-Files and Rotary Kedo-S Files in Primary Teeth: A Randomised Clinical Trial." *European Archives of Paediatric Dentistry: Official Journal of the European Academy of Paediatric Dentistry* 20 (5): 467–72.
22. Półchłopek, Olga, Nynke R. Koning, Frederike L. Büchner, Mathilde R. Crone, Mattijs E. Numans, and Mark Hoogendoorn. 2020. "Quantitative and Temporal Approach to Utilising Electronic Medical Records from General Practices in Mental Health Prediction." *Computers in Biology and Medicine* 125 (October): 103973.
23. Prasanna, N., C. V. Subbarao, and J. L. Gutmann. 2011. "The Efficacy of Pre-Operative Oral Medication of Lornoxicam and Diclofenac Potassium on the Success of Inferior Alveolar Nerve Block in Patients with Irreversible Pulpitis: A Double-Blind, Randomised Controlled Clinical Trial." *International Endodontic Journal* 44 (4): 330–36.
24. Priya S, R., C. Krishnan, Justin Raj S, and Jerome Das}. 2009. "Growth and Characterization of NLO Active Lithium Sulphate Monohydrate Single Crystals." *Crystal Research and Technology* 44 (12): 1272–76`.
25. Rajeshkumar, S., Soumya Menon, S. Venkat Kumar, Murtaza M. Tambuwala, Hamid A. Bakshi, Meenu Mehta, Saurabh Satija, et al. 2019. "Antibacterial and Antioxidant Potential of Biosynthesized Copper Nanoparticles Mediated through Cissus Arnotiana Plant Extract." *Journal of Photochemistry and Photobiology. B, Biology* 197 (August): 111531.
26. Ramadurai, Neeraja, Deepa Gurunathan, A. Victor Samuel, Emg Subramanian, and Steven J. L. Rodrigues. 2019. "Effectiveness of 2% Articaine as an Anesthetic Agent in Children: Randomized Controlled Trial." *Clinical Oral Investigations* 23 (9): 3543–50.
27. Ramakrishnan, Mahesh, R. Dhanalakshmi, and E. M. G. Subramanian. 2019. "Survival Rate of Different Fixed Posterior Space Maintainers Used in Paediatric Dentistry - A Systematic Review." *The Saudi Dental Journal* 31 (2): 165–72.
28. Ramesh, Asha, Sheeja Saji Varghese, Jayakumar Nadathur Doraiswamy, and Sankari Malaiappan. 2016. "Herbs as an Antioxidant Arsenal for Periodontal Diseases." *Journal of Intercultural Ethnopharmacology* 5 (1): 92–96.
29. Rios, Anthony, and Ramakanth Kavuluru. 2019. "Neural Transfer Learning for Assigning Diagnosis Codes to EMRs." *Artificial Intelligence in Medicine* 96 (May): 116–22.
30. Samadbeik, Mahnaz, Farhad Fatehi, Mark Braunstein, Ben Barry, Marzieh Saremian, Fatemeh Kalhor, and Sisira Edirippulige. 2020. "Education and Training on Electronic Medical Records (EMRs) for Health Care Professionals and Students: A Scoping Review." *International Journal of Medical Informatics* 142 (October): 104238.
31. Su, Jia, Jinpeng Hu, Jingchi Jiang, Jing Xie, Yang Yang, Bin He, Jinfeng Yang, and Yi Guan. 2019. "Extraction of Risk Factors for Cardiovascular Diseases from Chinese Electronic Medical Records." *Computer Methods and Programs in Biomedicine* 172 (April): 1–10.
32. Tapp, Hazel, Thomas Ludden, Lindsay Shade, Jeremy Thomas, Sveta Mohanan, and Michael Leonard. 2020. "Electronic Medical Record Alert Activation Increase Hepatitis C and HIV Screening Rates in Primary Care Practices within a Large Healthcare System." *Preventive Medicine Reports* 17 (March): 101036.
33. Tsai, Min-Fang, Shin-Yuan Hung, Wen-Ju Yu, Charlie C. Chen, and David C. Yen. 2019. "Understanding Physicians' Adoption of Electronic Medical Records: Healthcare Technology Self-Efficacy, Service Level and Risk Perspectives." *Computer Standards & Interfaces* 66: 103342.
34. Venugopalan, S., P. Ariga, P. Aggarwal, and A. Viswanath. 2014. "Magnetically Retained Silicone Facial Prosthesis." *Nigerian Journal of Clinical Practice* 17 (2): 260–64.
35. Xie, Jing, Jingchi Jiang, Yehan Wang, Yi Guan, and Xitong Guo. 2020. "Learning an Expandable EMR-Based Medical Knowledge Network to Enhance Clinical Diagnosis." *Artificial Intelligence in Medicine* 107 (July): 101927.
36. Young, Paul E., Gabriel J. Diaz, Rinaben N. Kalariya, Peggy A. Mann, Maegan N. Benbrook, Kurosh R. Avandsalehi, and John R. Petersen. 2020. "Comparison of the Time Required for Manual (visually Read) and Semi-Automated POCT Urinalysis and Pregnancy Testing with Associated Electronic Medical Record (EMR) Transcription Errors." *Clinica Chimica Acta; International Journal of Clinical Chemistry* 504: 60–63.
37. Zimmerman, Mark, Caroline Balling, Iwona Chelminski, and Kristy Dalrymple. 2019. "Symptom Presence versus Symptom Intensity in Understanding the Severity of Depression: Implications for Documentation in Electronic Medical Records." *Journal of Affective Disorders* 256 (September): 344–47.