# A Unified Publishing Framework for Integrating Medical Records

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## Abstract

Patient records can be defined as a set of clinical documents in which describe health care services and the interactions between patients and doctors. In practice patient records are usually poorly structured. Some simply were transformed into electronic ones with plan text. Thus, those patient records can hardly be communicated among computer systems. And hence this makes the continuing healthcare very difficult.

This project focused on establishing disease knowledge base and drug knowledge base for outpatient medical care, on investigating the structures of disease diagnosis, prescription and drug related knowledge, and on developing a prototype of web based system for exchange, query and presentation of patient records on web browsers.

This framework can facilitate the exchange of patient records for medical professionals. It also can allow patients to acquire their medical records with their understandable presentation format. Thus, with the provided medical knowledge patients can be more informed to their health conditions, and may be able to take care themselves better.

Keywords: Electronic Patient Records, Internet, Knowledge representation

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⁄ fl°fl f œ ” ”†⁄”Œƒf¢†Łƒ¡¡G(1)¥Hfi S˙ ƒV ” ” fl f œ †(Time-oriented Patient records): ƒ „ fl fœ† ƒ ›”” fi …g⁄Łƒ¡¡A– N Œƒ; ¶E” ”O¿ ¤ • fi S˙ O¿ –⁄U¤ ¡F(2) ¥H¤ •‰ ƒV” ” fl f œ †”c (Source-oriented Patient record)¡Œl fœ¤ • ,Œfi˘¤ •‰ ””⁄£ƒP¤ –˘ƒC¡A¤ ƒp¡ A fiv”‘”” ¶E O¿ – ˘ œ ›¡A ' ƒ †” ¯ †G'æƒ b@ _¡ A ƒ †”x-ray † $i'æƒb ¥t⁄@ † ¥ ¡F(3) ¥H ^ D ƒV ” fl f œ †”c ( Problem-oriented Patient record)¡G¤ • ¤C⁄@” ⁄£ƒP ”” ^D¤˘¥¸' ¿ SOAP(Subjective, Objective, Assessment, Planning)””⁄Łƒ¡⁄ S Ofi …gfl f œ¡¤Œ⁄@ › D⁄”Sfi …g⁄Łƒ¡«h¤ fi S˙–˘S˙¡C¥H⁄ W ” fl f œ †c• ß fl fœfi …g”‘”† ¶d' ¸« ⁄ ¡A ¶f ¡A„ Œ »⁄W ¤ ^ L ' œ ‰ T ” (mark up)' wqA fl°fl fœ• ¶NO ´ · « ƒ ¤qƒ¡Æ„⁄ğ , £ ⁄ · ^ ¥H`Aff⁄c¡Aƒ ƒ„¡A ⁄ ] Ł¥ƒfi†fi˜”‘”¥ [ ¥ H „ B ¥'¡A§ ”R”ˆfl f œ”ƒ† fi ˜ ÿ†»pP¶ ¿Ø¡A L” k fl u ¥„Œø' '°´ ł • ¯@”” ¥ ¶ ¡C

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ŠQ¥ ¸Internet ‹ ˜fc¡ AN •dƒ†^ ⁄"fie⁄ ¸,Œ T¥H " ›¶(web pages)⁄Łƒ¡¶if fl £w− ¤│¡A' ¸¤ ˘¥ ¸e-mail ¶ ·e •d,Œ T „flf⁄H¡A.. Wi´ fi »Pfl f w"✓ ¢q Q ‰ [10,11,12]¡C

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¥»× ¤sƒ¤"G⁄£¶ ¨ £¤´ ł−M• ~H›ß−q⁄ ƒP"" ´ ł "c' ¸¤ œ A•" f1f œ¡AƒPfi ⁄ ] £¤fl £w¥»¤ › „ ' fleflf»P¥ ¸ " ^ ¡A„ ₣ fl £wƒ Š − ¤│¡A· £@ ƒ Š • ¯U"‘fl ⁄O¡C` Mflf œ"fie £Fflefl¶E´_¡B ¥ ¸ †B⁄Š¥~¡A¤ ¥ ] Š ‰d‡s¡‹A¤ ƒpflf¥v¡B„Œ ¯ ¶E´_' ¸ ¯ ¡A' æ ƒj‰u ‹ d.. ¥†⁄ ¸† Ši¡B⁄ †N"K ›n¡ ƒBf {‹ ¿ ¥¥¡Aƒ]ƒb•¥ƒ†› ›""⁄H⁄O¡B, ¶O⁄ ¸ fi ¶¡⁄U L ₨Š„ª· y‡z¡C M ¡A¥»× ¤s' ·£¥ X"HL7 Medical Record Integrator −M¶ † „ qlflf œ´ ·«ƒ¤ HL7 … •·'" "Ł"k¡ Af œ⁄‹ ^ »†ŠU»¡'œ⁄ ¥ †"c › «h⁄ ¸⁄ ¥ ¯ª† ‘ ¥ ⁄Ł"k¥ u » Šy@› Š ¡A¥[⁄J..v „†„ ˘ " ƒ¡⁄Ł"kŠY¥ ¥H⁄ · ' ł·C"Ø¥ ¸¡C

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## ⁄ › ¡ B ƒ/˜m


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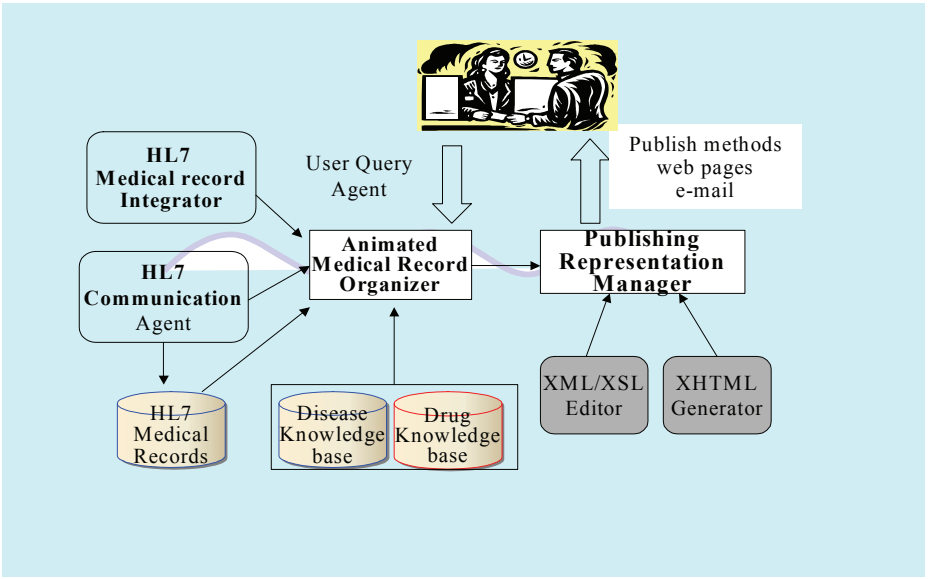


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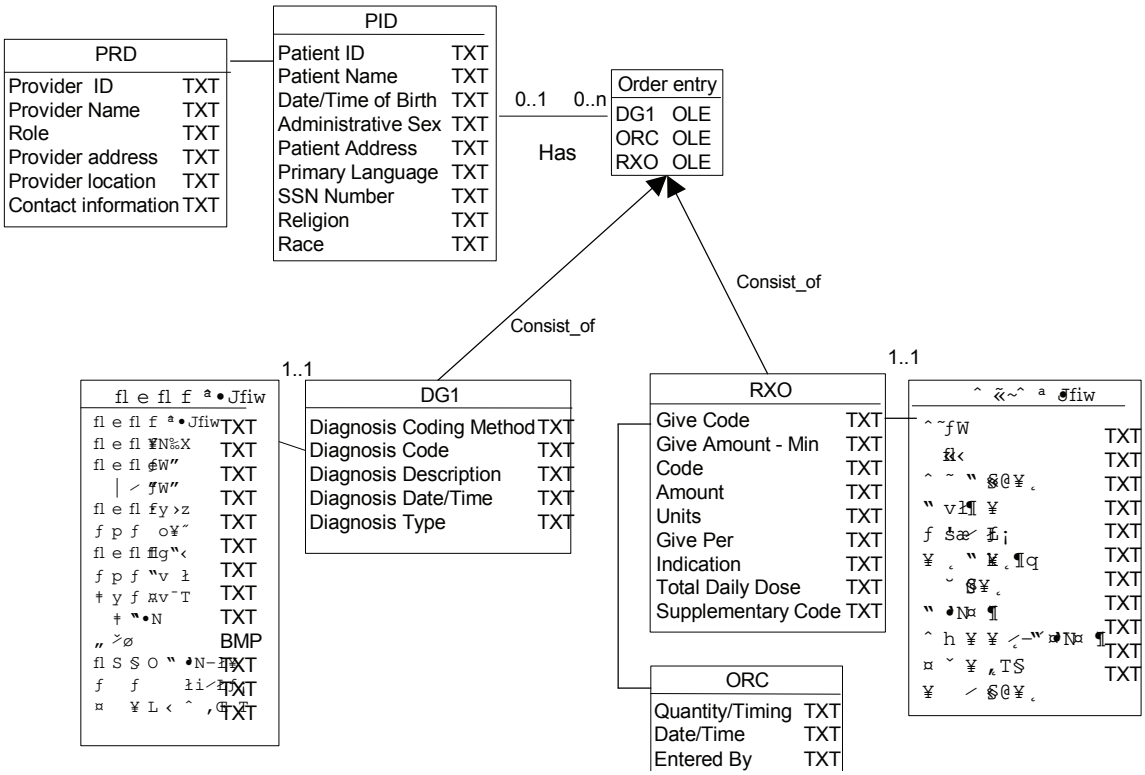
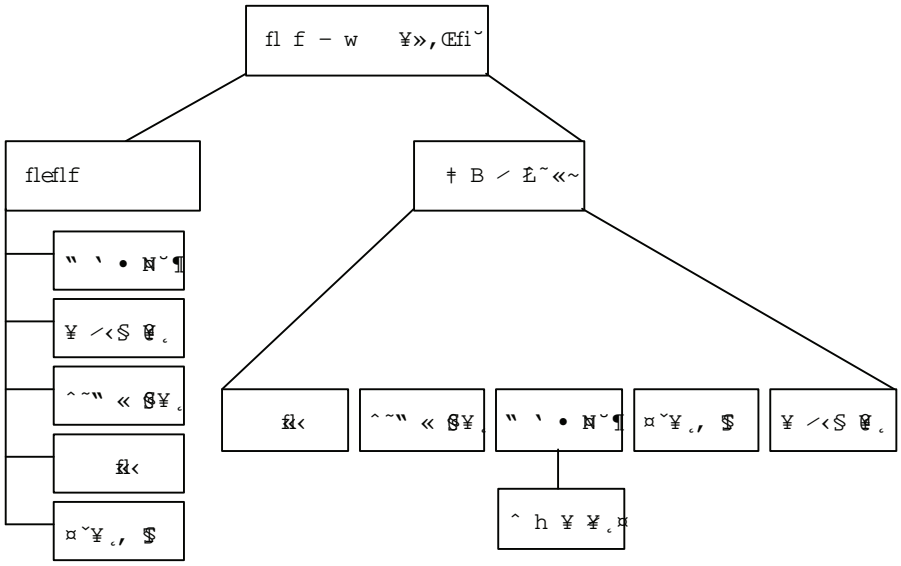



„ˇ(2): fl f – w • N ´ fl f œ †”(Entity Relationship Diagram)



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result - Microsoft Internet Explorer

檔案(F) 編輯(E) 檢視(V) 我的最愛(A) 工具(T) 說明(H)

上一頁 搜尋 我的最愛 記錄

網址(D) http://localhost:8080/rayman/servlet/HD 移至 連結

The msg is form ERAMED to DRCLUB at time 20010808120000000

病人資料：A147496
藥品代碼：B014294100

| PID | name | birthday |
|---|---|---|
| A111111111 | XXX | 1976-10-15 00:00:00 |

| MEDNO | Chiname | Engname | Quantity | Frequency | Approach | Day | Nhicode | Doseunit | Totalunit | Nh |
|---|---|---|---|---|---|---|---|---|---|---|
| *SCA | null | Scanol (Acetaminophen 500mg) | null | QID | PO | 0 | B014294100 | Tab | Tab | 1.0 |

| 分類 | 名稱 | 廠商 | 劑型 |
|---|---|---|---|
| 心臟血管系統用藥／抗心律不整劑 | ACEBUTOLOL | PRENT(拜耳) SECTRAL(法?美百佳)SECTRAL(法台) | 錠/200,400mg膠囊/100,200mg注射劑/5mg(5ml) |
| **藥物作用** | **治療項目** | **用法用量** | **副作用** |
| 本藥是一種β阻斷劑的降血壓藥。β-AdrenergicReceptor可以減少心跳速率及降壓。此外，本藥亦具有抗心律不整的作用。 | 心律不整（心室性心律不整，上心室性心律不整）、高血壓、狹心症。 | 治療心律不整：長期使用劑量爲每天400?1200mg，分多次服用。視病情決定服用劑量。治療狹心症：初期每天的劑量爲400mg，可每天一次，於早餐後服用；或是分成二次，每次200mg。如果症狀嚴重，可以提高劑量到每日1200mg，分成三次服用。治療高血壓：初期每天的劑量爲400mg，可每天一次，於早餐後服用；或是分成二次，每次200mg。兩週後再視病情逐漸調整劑量到每日800mg，分兩次服用。 | |
| **注意事項** | **懷孕及授乳注意事項** | **使用禁忌** | **交互作用** |
| 腎功能不良、糖尿病患者、支氣管痙攣患者、心臟病患者，均需依照醫師指示，小心服藥。 | 懷孕婦女使用本藥可能會造成胎兒心跳緩慢，固不宜使用本藥。 | 心臟性休克、血壓過低、心臟房室阻滯、明顯的心跳過慢、心衰竭等病人，均不宜使用本藥。 | 使用Verapamil期間，不宜服用本藥。 |
| **其他** | | | |

„ˇ(4)¡ G ¥ [ ø fl fo web browser ／ Wª¥ „ˇ