"Knowledge is Power. France is Bacon": *Tackling medicine's paternalism problem* A/Prof Brian E. Chapman

University of Melbourne

A little bit about me...

- 4-time cancer survivor
 - Two childhood cancers (1976, 1983)
- 6 abdominal surgeries
 - 4 emergencies
- 4 orthopedic surgeries
- 2 "not-otherwise-categorized" surgeries
- Advanced peritonitis
- Gangrenous strangulated bowel
- And all the chronic issues that result from the acute ones!

...And...

• I have a PhD in Medical Informatics

Calendar for March 2021 (Australia)

March						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				
Phases of the Moon: 6: 13: 22: 29:0 Holidays and Observances: 21: Harmony Day						
nonuays and observances. 21. nannony Day						

"Why are you here?"

"I'm a childhood cancer survivor!"



Created by Luis Prado from the Noun Project

" Orove it?"



Created by Andrew Doane from the Noun Project

"I can show you my scars."





How many of you could "prove" a medical event/condition from 45 years ago?



	Chapman, Brian E.	76-2536
Holy Cross Hospital	ADDRESS 206/B 2296382	4/7/76
LABORATORY	Right Renal Tumor	A.W.Middleton, Jr.
1045 EAST 1st SOUTH SALT LAKE CITY, UTAH 84102	TISSUE SITE AND LOCATION Rt Kidney	
	PATHOLOGIC DIAGNOSIS Wilms's tumor of right kidney(se margins).	e micro for 6
PATHOLOGISTS	margins,.	· . • .
CYRIL FULLMER, M.D. STANLEY L. GIBBON, M.D. BRUCE LLOYD, M.D. SAROJ N. KULKARNI, M.D. R. MYRON LAUB, M.D.		RML/mf

The specimen labelled "right kidney," consists of a kidney and subcutaneous tissues weighing 285 grams. The kidney has been opened and reveals a large yellow centrally methods to maximum of 12 mm, of renal

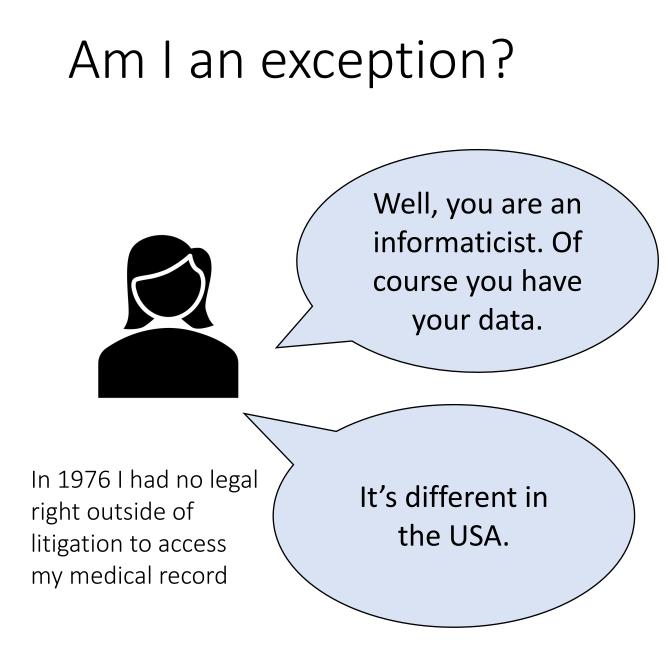
Am I an exception?

Well, you are an informaticist. Of course you have your data.





Exceptionally cute, maybe!





Exceptionally cute, maybe!

Consider this 1977 Editorial

One might also ask why a patient would want to see his or her medical record anyway...

More likely reason might be a kind of morbid curiosity on the part of a patient. There are such patients, [GASP]...

[maybe they have] dissatisfaction with the physician.

Patient's Access to Physician's Records West J Med. 1977 Sep;127(3):237-8.

Consider this 1977 Editorial

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More likely reason might be a kind of morbid curiosity on the part of a patient. There are such patients, [GASP]...

[maybe they have] dissatisfaction with the physician.

Let a patient see the record and...

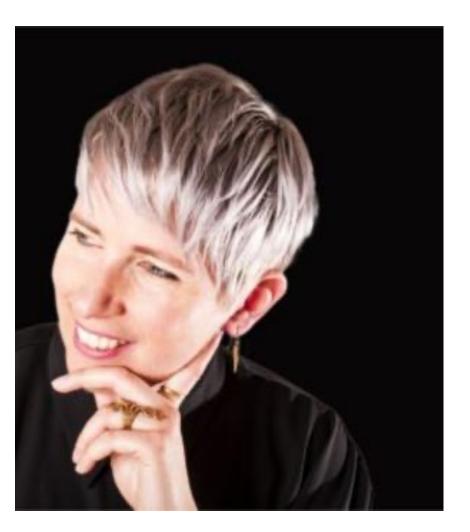
- They'll look things up at the library
- They might pass judgment on the doctor and treatment
- They might sue
- They will see our uncertainty
- They'll misunderstand

Patient's Access to Physician's Records West J Med. 1977 Sep;127(3):237-8.

Knowledge is Power!

Those who control what we know, or think we know, exert an influence on our lives that is often as dangerous as it is imperceptible.

> Lani Watson, Ph.D. *Epistemic Rights*



Misunderstanding

I didn't need access to my medical records to misunderstand aspects of my medical care!



Dnalor 01, CC BY-SA 3.0 AT https://creativecommons.org/licenses/by-sa/3.0/at/deed.en, via Wikimedia Commons



Lard_Baron · 11 yr. ago · edited 10 yr. ago 🟠 3 💡 🎲 💐 5 & 12 More

When I was young my father said to me:

"Knowledge is Power....Francis Bacon"

I understood it as "Knowledge is power, France is Bacon".

For more than a decade I wondered over the meaning of the second part and what was the surreal linkage between the two? If I said the quote to someone, "Knowledge is power, France is Bacon" they nodded knowingly. Or someone might say, "Knowledge is power" and I'd finish the quote "France is Bacon" and they wouldn't look at me like I'd said something very odd but thoughtfully agree. I did ask a teacher what did "Knowledge is power, France is bacon" mean and got a full 10 minute explanation of the Knowledge is power bit but nothing on "France is bacon". When I prompted further explanation by saying "France is Bacon?" in a questioning tone I just got a "yes". at 12 I didn't have the confidence to press it further. I just accepted it as something I'd never understand.

It wasn't until years later I saw it written down that the penny dropped.

3.9k Give Award Share Report Save

What is a patient anyway?

• 2009

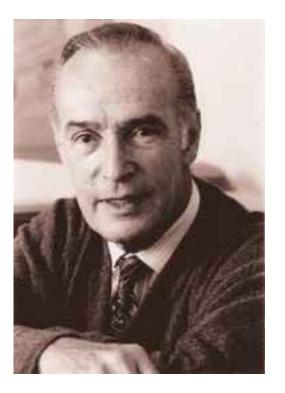
"A biological structure yielding cash" ~ Uwe Reinhardt

• 1977

Someone who would misunderstand their medical record

• 1989

Someone who uses "everyday language" for medical problems



Morton Hunt, NY Times

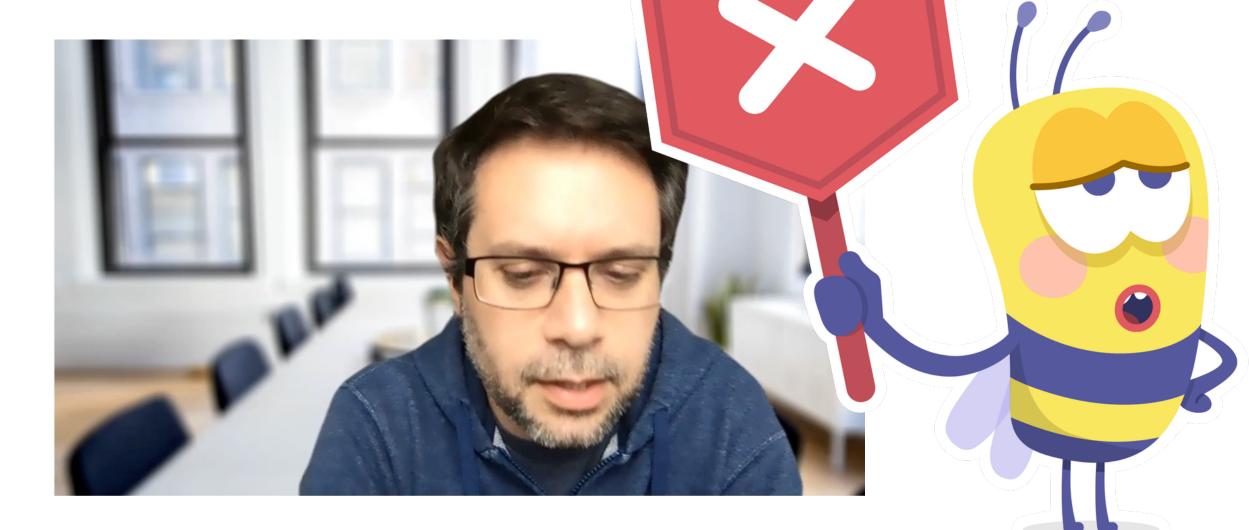
My wife described her symptoms to one specialist in medically precise terms, to which he smarmily replied: `Let's not use fancy words. Why don't you just call things by their everyday names?'

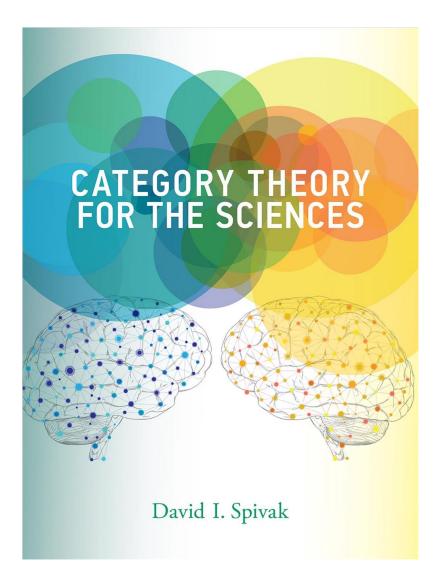
Example

2020 Daniel develops severe pain and goes to a nearby academic medical center.



"Don't use fancy words!"



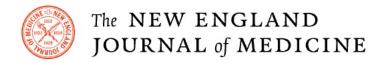


Defining an ontology log (OLOG) for a patient "An aspect of a thing x is a way of viewing it"

An aspect that every x [patient] hasDon't want to lose patients!

Brian's Definition: A patient is an individual that has entered into a transactional relationship with another individual or group of individuals who is (are) legally authorized, with consent of the individual, to take clinical actions (e.g. prescribe, offer medical advice, take therapeutic actions) on the patient's behalf.





Giving the Patient His Medical Record: A Proposal to Improve the System

Budd N. Shenkin, M.D., and David C. Warner, Ph.D. 1973

In most exchanges in society a purchased product becomes the property of the purchaser, who is then free to evaluate the product on his own, have it evaluated by experts and choose freely among suppliers for any further services.

Eliminate the knowledge wars!





Eric Topol @EricTopol physician-scientist, author, editor

drerictopol.com

It's your body

You paid for it

It is worth more than any other type of data

It's being widely sold, stolen and hacked. And you don't know it.

It's full of mistakes, that keep getting copied and pasted, that you can't edit

You are/will be generating more of it, but it's homeless

Your medical privacy is precious

The only way it can be made secure is to be decentralized

It is legally owned by doctors and hospitals

Hospitals won't or can't share your data ("information blocking")

Your doctor (>65%) won't give you a copy of your office notes

You are far more apt to share your data than your doctor

You'd like to share it for medical research, but you can't get it

You have seen many providers in your life; no health system/insurer has all your data

Essentially no one (in the US) has all their medical data from birth throughout their life

Your EHR was designed to maximize billing, not to help your health

You are more engaged and have better outcomes when you have your data

Doctors who have given full access to their patients' data make this their routine

It requires comprehensive, continuous, seamless updating

Access or "control" of your data is not adequate

~10% of medical scans are unnecessarily duplicated d/t inaccessibility

You can handle the truth

You need to own your data; it should be a civil right

It could save your life

https://twitter.com/erictopol/status/917038007139438592

Let's Jump Ahead in time to 2019



Deseret News

Visit Victoria

8	Menu

Past Visits

1 Year Ago

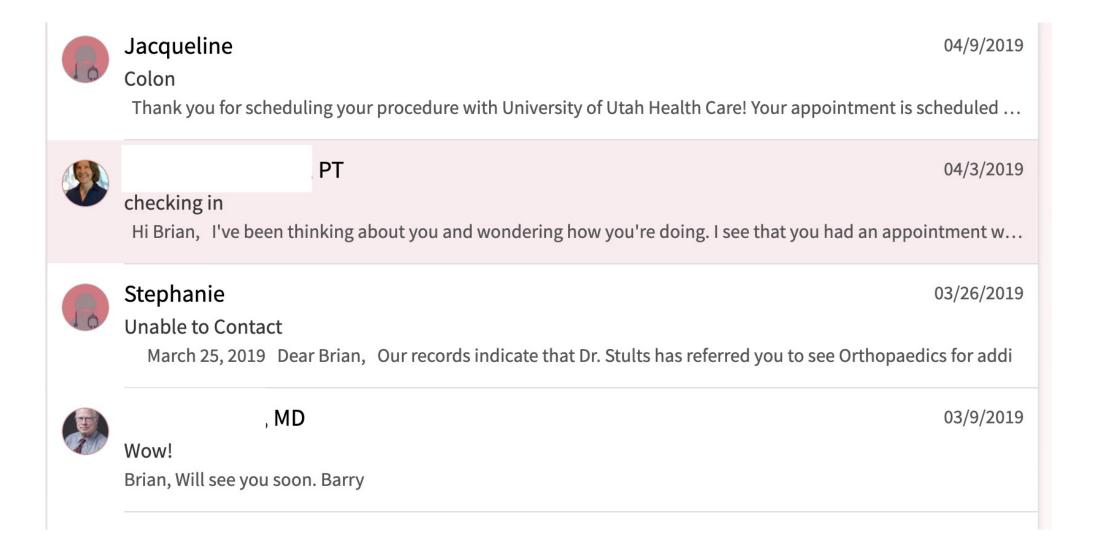
AUG Office Visit JUL Nurse Visit 5 Huntsman Cancer Clinic 2C 12 Bryan Vincent, OD Moran Eye Center Ophthalmology 2019 2019 📑 View notes View After Visit Summary® View After Visit Summary® JUL Office Visit MAY Dental Visit 5 Douglas Grossman, MD Huntsman Cancer Clinic 2C Dermatology 15 Mandy Biesinger, RDH Faculty Practice Dental 2019 2019 📑 View notes View notes View After Visit Summary® View After Visit Summary® APR Office Visit APR Hospital Outpatient Visit 16 Douglas Grossman, MD Huntsman Cancer Clinic 2C Dermatology 10 Michael Sossenheimer, MD University Hospital Endoscopy 2019 2019 📑 View notes View After Visit Summary® View After Visit Summary® APR Office Visit MAR Office Visit 2 Patrick Greis, MD University Orthopaedic Clinic A 18 Barry M Stults, MD Madsen Internal Medicine 2019 2019 📑 View notes 🐺 View notes View After Visit Summary® View After Visit Summary® MAR Office Visit FEB Nurse Visit 7 Jacqueline Waring, PT University Orthopaedic Sports Medicine 15 Huntsman Cancer Clinic 2C 2019 2019 📑 View notes

HEALTH UNIVERSITY OF UTAH

Test Re U of U Heal reviewed t	th posts your test results in MyChart within hours of be hem.	eing finalized. This means you may be seeing yo	ur results before your provider has
When your Please noti your baby i wait to vie	provider reviews your results they may add comments in: These test results could include sensitive information in a fetal ultrasound. If you are not comfortable seeing withem.	s for you, in which case you will receive a notifica n. Examples include results related to a cancer d g this information before you have discussed yo	tion that your result has been updated. agnosis, genetic testing or the gender of ur results with your provider, please
Search th	is list 9,		
	Test	Ordered By	Date -
4	Hepatic Function Panel	Douglas Grossman, MD	Jul 5, 2019
-	Surgical Pathology Tissue	Michael Sossenheimer, MD 🖂	Apr 10, 2019
	Prostate Specific Antigen, Total [Updated] Hepatic Function Panel	Barry N Stults, MD 🖂 Douglas Grossman, MD	Mar 18, 2019 Feb 15, 2019
#.	(updated) Hepatic Function Panel	Amy P Powell, MD	Jan 25, 2019
	XR KNEE 3 VIEWS BILATERAL	Barry M Stults, MD	Jan 11, 2019
σŢ	Lipid Panel	Barry M Stults, MD	Jan 11, 2019
<u> </u>	Sedimentation Rate, Westergren (ESR)	Barry N Stults, MD	Jan 11, 2019
•	Basic Metabolic Panel	Douglas Grossman, MD	Dec 14, 2018
.	[Updated] Hepatic Function Panel	Douglas Grossman, MD	Dec 14, 2018
0	CBC with Platelet Count	Barry N Stults, MD	Sep 13, 2018
Ф <u></u>	Comprehensive Metabolic Panel Estimated Glomerular Fibration Rate	Barry N Stults, MD 💬	Sep 13, 2018 Sep 13, 2018
	Estimated Glomerular Fitration Rate CBC with Platelet Count	Barry N Stults, MD	Sep 13, 2018 Aug 13, 2018
	Lipid Panel	Barry N Stults, MD	Aug 13, 2018
1	Prostate Specific Antigen, Total	Barry N Stults, MD 📄	Aug 13, 2018
<u></u>	Basic Metabolic Panel	Barry N Stults, MD 🗇	Aug 13, 2018
4	Hepatitis B Virus Surface Antibody	Barry M Stults, MD 🥦	Aug 13, 2018
<u>_</u>	Estimated Glomerular Filtration Rate	Barry N Stults, MD	Aug 13, 2018
-	LDL Cholesterol, Direct	Barry N Stults, MD 📄	Aug 13, 2018
<u>.</u>	[Updated] 12 Lead ECG XR SHOULDER 2 OR MORE VIEWS LT	Barry M Stults, MD	Nov 10, 2017
	XR SHOULDER 2 OR MORE VIEWS LT Basic Metabolic Panel	Barry N Stults, MD	Nov 10, 2017 Nov 10, 2017
	Lipid Panel	Barry N Stults, MD 🖂	Nov 10, 2017
1	Estimated Glomerular Filtration Rate	Barry N Stults, MD 🖂	Nov 10, 2017
1	Hepatic Function Panel	Barry N Stults, MD	Aug 3, 2017
<u> </u>	Hepatitis B Virus Surface Antibody	Barry N Stults, MD	Jul 20, 2017
<u>_</u>	Hepatitis A Virus Antibody, IgM	Barry N Stults, MD 📄	Jul 20, 2017
0	Comprehensive Metabolic Panel	Barry M Stults, MD	Jul 19, 2017
<u> </u>	Estimated Glomerular Filtration Rate	Barry N Stults, MD	Jul 19, 2017 Dec 20, 2016
<u>نه</u>	Basic Metabolic Panel	Barry M Stults, MD	Dec 12, 2016
	Lipid Panel	Barry N Stults, MD	Dec 12, 2016
	DERMATOPATH/IMMUNODERM TESTING	Douglas Grossman, MD	Dec 2, 2016
	Basic Metabolic Panel	Barry N Stults, MD	Sep 13, 2016
04	Lipid Panel	Barry N Stults, MD 💬	Sep 13, 2016
	Estimated Glomerular Filtration Rate	Barry M Stults, MD	Sep 13, 2016
-	Urinalysis, Dipstick	Barry N Stults, MD	Apr 27, 2015
•	Lipid Panel Comprehensive Metabolic Panel	Barry N Stults, MD	Apr 27, 2015 Apr 27, 2015
	C-Reactive Protein, High Sensitivity	Barry M Stults, MD	Apr 27, 2015
1	Estimated Glomerular Filtration Rate	Barry N Stults, MD	Apr 27, 2015
	US NECK OR THYROID	Jason P Hunt, MD	Jun 4, 2014
	X-ray of lower and sacral spine, 2 or 3 views	Joseph G Cunniff, DO	Nov 11, 2013
	X-ray of middle spine, 3 views	Joseph G Cunniff, DO	Nov 11, 2013
* *	X-ray of shoulder, minimum of 2 views	Amy P Powell, MD	Nov 11, 2013
ă L	X-ray of knee, 3 views Albumin-Creatinine Ratio, Urine	Amy P PowelL MD Barry N Stults, MD	Nov 11, 2013 Oct 21, 2013
<u> </u>	URINALYSIS WITH REFLEX TO CULTURE	Barry N Stults, MD	Oct 21, 2013
04	Lipid Panel	Barry N Stults, MD 💬	Oct 21, 2013
1	ULTRSN EV VEN THROMBOEM QUAL	M Jason Penrod, MD	Oct 8, 2013
•	Chest X-ray	M Jason Penrod, MD	Oct 8, 2013
	Estimated Glomerular Filtration Rate	M Jason Penrod, MD	Oct 8, 2013
<u>_</u>	Troponin I	M Jason Penrod, MD	Oct 8, 2013
-	Sedimentation Rate, Westergren (ESR)	M Jason Penrod, MD	Oct 8, 2013
04	CBC with Platelet Count	M Jason Penrod, MD	Oct 8, 2013 Oct 8, 2013
~	comprehensive Metabolic Panel	M Jason Penrod, Mu	UCI 8, 2013

Here you can see yo with the person wh test to be done. Clic more details.	HEALTH	
	Menu 📑 Appointments/Admissions 🖂 Messages 👗 Test Results 📑 Schedule an	Appointment
	<mark>sit Records</mark> lect the visits you'd like to view, download, or send. You can select a single visit or multiple visits us ur Lucy Summary is also available.	sing the options below.
	Single visit Date range All visits Lucy summary	
	Office Visit with Bryan Vincent, OD Moran Eye Center Ophthalmology	Monday August 12, 2019
	Nurse Visit with Hc Huntsman Cancer Clinic 2C	Friday July 05, 2019
	Office Visit with Douglas Grossman, MD Huntsman Cancer Clinic 2C Dermatology	Friday July 05, 2019
	Dental Visit with Mandy Biesinger, RDH Faculty Practice Dental	Wednesday May 15, 2019
	Office Visit with Douglas Grossman, MD Huntsman Cancer Clinic 2C Dermatology	Tuesday April 16, 2019
	Hospital Outpatient Visit with Michael Sossenheimer, MD University Hospital Endoscopy	Wednesday April 10, 2019
	Office Visit with Patrick Greis, MD University Orthopaedic Clinic A	Tuesday April 02, 2019
	Office Visit with Barry M Stults, MD Madsen Internal Medicine	Monday March 18, 2019
	Office Visit with Jacqueline Waring, PT University Orthopaedic Sports Medicine	Thursday March 07, 2019
	Nurse Visit with Hc Huntsman Cancer Clinic 2C	Friday February 15, 2019
	< 1 2 3 4 >>	

Patients Love Communicating via Portals!



Anstralian Digital Health Agency My Health Record							
Record Home COVID-19 Dashboard Documents V Privacy & Access Profile & Settings	s 💌 💞						
Event Summaries	My Health Record						
Information about healthcare events or consultations.	COVID-19 Dashboard Documents v Privacy & Access Profile a	e & Settings ▼	_				
	1						
Filter Event Summaries	stic Imaging Reports Imaging Reports 	Antiratian Government Asstantian Figlial Health Agency	fy Health Record			Brian Chapman Born 24-May-1968	~
Display documents from All dates	uch as scans and x-rays.	Record Home C	COVID-19 Dashboard Docume	ents ▼ Privacy & Access Pr	ofile & Settings 🔻		Q Search Help 🗗
	nostic Imaging Reports	Expand for more fi	Itering options n on Pathology F	Reports			
Information on Event Summaries		Specimen Collected Date ↓	Pathology Test Name 🔺	Pathology Organisation 🗢	Requester 🗢	Status	Action
① No information is available.	Month (MM) Year (YYYY) 01 2015		PWL HISTOPATHOLOGY (Surgical Pathology)	Dorevitch Pathology	DR RAINBOW FUNG	Final ID: 21-34638883- PWH-0	Manage Access
Date To			FULL BLOOD EXAMINATION (Hematology)	Dorevitch Pathology	DR ATIYA KHALID	Final ID: 21-31790417- FBE-0	Manage Access
Day (DD)	Month (MM) Year (YYYY)		GENERAL BIOCHEMISTRY (Chemistry)	Dorevitch Pathology	DR ATIYA KHALID	Final ID: 21-31790417- MBI-0	Manage Access
28	01 2022		HBA1C (GLYCATED HB) (Chemistry)	Dorevitch Pathology	DR ATIYA KHALID	Final ID: 21-31790417- GHB-0	Manage Access
Apply Fil	lter		LIPID STUDIES (Chemistry)	Dorevitch Pathology	DR ATIYA KHALID	Final ID: 21-31790417-LIP- 0	Manage Access





Giving the Patient His Medical Record: A Proposal to Improve the System

Budd N. Shenkin, M.D., and David C. Warner, Ph.D.

We propose that legislation be passed to require that a complete and unexpurgated copy of all medical records, both inpatient and outpatient, be issued routinely and automatically to patients as soon as the services provided are recorded

Benefit for Patients

- The record would serve as an educational tool. Patients would consult books...
- Eventually, increased knowledge would lead to more appropriate utilization of physicians.
- patients to participate in their own care.
- Free patients to choose and change physicians.
- Patients would also be able to make better judgments about their physicians, and to differentiate legitimate physicians from quacks.

Benefit for Physicians

- decentralized peer review...[providing a] clear incentive to practice high-quality medicine
- provide physicians new opportunities to learn.
- provide a more 'longitudinal' view of a patient, and physicians would appreciate better (and treat better) the course of a disease.

Progress

- Expanding recognition that patients are humans and thus have human rights
 - Epistemic rights: rights to data, information, knowledge, and understanding
- Digital technologies eliminated many of the logistic barriers
- Three Federal laws
 - Health Insurance Portability and Accountability Act of 1996 (HIPAA)
 - Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH)
 - 21st Century CURES Act 2016

Progress

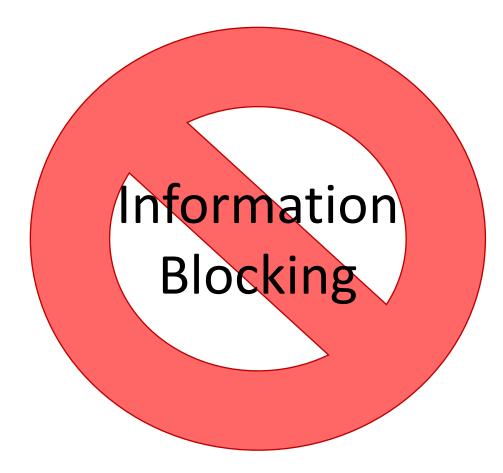
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Knowledge is power!

21st Century CURES Act

Patients can electronically access all of their electronic health information, structured and/or unstructured, at no cost.

And at the same time as the clinician



Extension of a Larger Movement

1996 PubMed (Public Medline) 1998

Medline Plus

NLM's goal is to improve the national infrastructure that supports the public's access to electronic health information.

This infrastructure includes the intellectual organization, information technology, inter-institutional arrangements, and training that will be needed to ensure that all people in the [World] have a known, accessible, understandable, and affordable source of current, authoritative health information.

"Pushing Against Ignorance"

"The other side of the [knowledge is power] coin is less pithy but no less significant: ignorance disempowers. It limits our ability to make the everyday decisions of our lives, as well as the decisions that change our lives in important ways."



No Rights without Corresponding Duties

"If a patient has a claim-right to know X, then someone along the line must be assigned the correlative epistemic duty to not merely provide them with access to their medical data, but to ensure that they come to know.... In fact, it seems likely that there is a right to understand X (not merely to know X), in many important cases...."







I think it is a great sin to not write in an accessible fashion when you can write in an accessible fashion.

David Edmonds, Ph.D. Oxford Uehiro Centre for Practical Ethics

https://newbooksnetwork.com/david-edmonds-would-you-kill-the-fat-man-princeton-up-2014-3

Time to Rethink Medical Language

- "It is a great sin to not use structured documentation when you can use structured documentation."
 - Concept-based representations like SNOMED can have consumer synonyms, images, language translations, etc.
- How do you maximize your documentation for the whole team, including the patient who is the "team leader"?
- Why is our English medical language filled with, I claim, unnecessarily esoteric Latin, Greek, German?
- Must begin this in medical school with teaching documentation in a coherent, principled based manner

Dirty Secret:

Medical language is not always understandable within medicine!

<u>Anesth Prog.</u> 2006 Spring; 53(1): 1–2. doi: <u>10.2344/0003-3006(2006)53[1:ITTTOO]2.0.CO;2</u> PMCID: PMC1586860 PMID: <u>16722276</u>

MEMBERSHIP

IT'S TIME TO THROW OUT OLD-FASHIONED LATIN ABBREVIATIONS

Joel M Weaver, DDS, PhD

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An Australian study looking at the use of abbreviations in discharge summaries at the Royal Melbourne Hospital concluded

"The 80 discharge summaries contained 840 different abbreviations used on 6269 occasions. Of all words, 20.1% were abbreviations. Of the 6269 occasions of shorthand, 6.8% were categorised as 'Understood but inappropriate and/or ambiguous' or 'Unknown' (category 3 or 4), equating to 1.4% of all words, and an average of 5.4 words per discharge summary. (Overview of shorthand medical glossary (OMG) study e)"



List of Error-Prone Abbreviations



February 28, 2019

February 5, 2021

Promoting Informed Choice: Transforming Health Care To Dispense Knowledge for Decision Making

Patients need good information to make good choices, but supplying that needed information is not something that physicians and hospitals do well. Among the great ironies of the modern health care system is how poorly it delivers knowledge at a time when society enjoys unprecedented access to information. [Patients] can obtain so many facts with the click of a button yet must struggle to gather welltailored information about their clinical options or ways to care for their own health. Consumers encounter a system designed to deliver the material commodities of care (such as tests and drugs) but not knowledge.

5 Rights of Decision Support

- 1. The right information:
- to the right person: including clinicians, patients and their caretakers;
- 3. in the right format:
- 4. through the right channel:
- 5. at the right time in workflow:

- Who should be my GP?
- Should I transfer my mother to a different hospital?
- What medications have I been prescribed?
- What surgeon has lower infection rates?

The Patient and the Pedestal

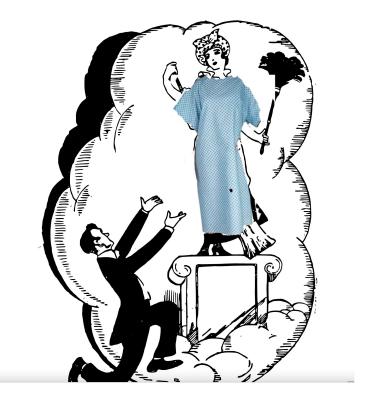
Patients are all important!



The Patient and the Pedestal

"Patient-centered care" without patient data/knowledge access is mere marketing

"Patient-led care" without patient data/knowledge access/control is a lie



Calling for a Revolution

