

OPTIMIZING CANCER CARE:  
UPDATES FOR 2020

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DISCLOSURES

None

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OBJECTIVES

- Identify key practice-related barriers to optimal patient outcomes in oncology
- Differentiate patient-level and system-level challenges to delivering cancer care
- Describe best practices to enhance patient engagement, medication access, and treatment adherence

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2020

Time traveler: What year is it?

Me: 2020

Time traveler:



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COVID  
AND  
CANCER



Cancer Site	January 1, 2020, to February 29, 2020		March 1 to April 18, 2020		Age group (5Y, %)
	Patients, No.	Rate, No./100,000	Patients, No.	Rate, No./100,000	
Breast	132,132	132.13	68,733.79	68.73	40-49.99
Colon/rectal	62,744	62.74	44,721.64	44.72	50-59.99
Lung	43,471	43.47	30,128.46	30.13	60-69.99
Prostate	38,268	38.27	27,423.75	27.42	70-79.99
Leukemia	1,244	1.24	874.03	0.87	80-89.99
Unspecified	3,018	3.02	2,121.16	2.12	90-99.99

Kaufman et al. JAMA New Open. 2020;3(8):e2017267

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DISPARITIES  
IN CANCER  
CARE

**U.S. Cancer Health Disparities**

Adverse differences in numerous measures of cancer burden exist among certain U.S. population groups. Examples of disparities in cancer incidence and death rates include:

**MORE THAN TWICE**  
MORE LIKELY

African American men have a prostate cancer death rate that is **more than twice** that for white men.

**51%**  
MORE LIKELY

Hispanic children are **50 percent more likely to develop leukemia** than non-Hispanic white children.

**20%**  
MORE LIKELY

Alaska/Native Islander adults are **twice as likely to die from stomach cancer** as white adults.

**35%**  
HIGHER

Non-Hispanic in the poorest U.S. counties have a **prostate cancer death rate that is 35 percent higher** than that for men living in the most affluent U.S. counties.

**TWICE AS LIKELY**

American Indian/Alaskan Native adults are **twice as likely to develop breast and liver duct cancer** as white adults.

**70%**  
MORE LIKELY

Hispanic women are **70 percent more likely to be diagnosed with cancer** than heterosexual women.

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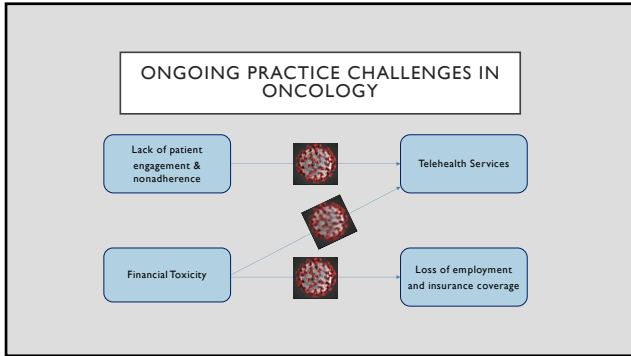
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The slide is titled "ADHERENCE: NOT SO STRAIGHTFORWARD". Below the title is a green box containing the quote: "Adherence is the *single most important* modifiable factor that *compromises* treatment outcome." Below the quote is the attribution: "-World Health Organization, 2003".

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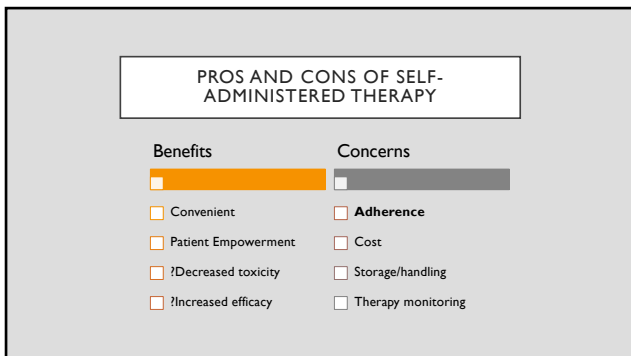
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**ADHERENCE TO THERAPY**

**Definition:** Extent to which a patient's behavior coincides with medical advice

**Consequences of Non-adherence**

Poor outcomes	Increased Toxicity	Increased health care costs
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Landmark Study: Partridge et al. J Clin Oncol. 2009; 27:124-128

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**NON-ADHERENCE IN CHRONIC DISEASES**

<p><b>Frequency of Administration, Per Day</b></p> <ul style="list-style-type: none"><li>Once → 80%</li><li>Twice → 70%</li><li>Three times → 65%</li><li>Four times → 50%</li></ul>	<p>43-78% in clinical trials</p>
<p>\$100 Billion per year in health-care costs</p>	<p>Higher in acute vs. chronic diseases</p>

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**NON-ADHERENCE IN CANCER: MAJOR BARRIER TO POSITIVE OUTCOMES**

Adherence Level	Percent
10	~2
20	~2
30	~2
40	~2
50	~2
60	~2
70	~2
80	~2
90	~18
100	~45

Landmark Study: Partridge AH. J Clin Oncol. 2010; 28:2418-2422.

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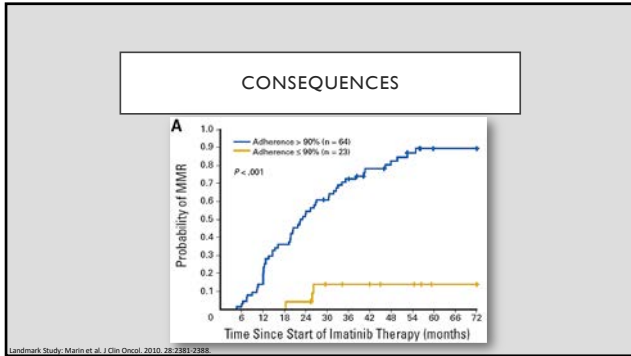
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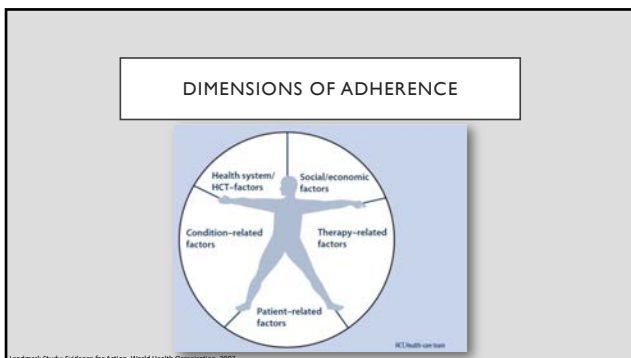
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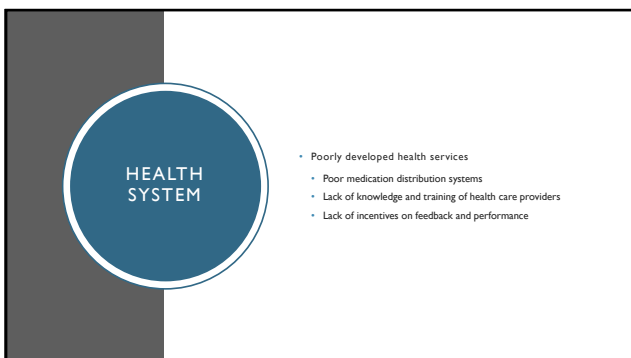
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**SOCIAL / ECONOMIC**

- Poor socioeconomic status
- Poverty
- Illiteracy
- Low level of education
- Unemployment
- Lack of effective social support networks
- Unstable living conditions
- Long distance from treatment center
- High cost of transport
- High cost of medication,
- Changing environmental situations, culture and lay beliefs about illness and treatment, and family dysfunction

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**CONDITION**

- Severity of symptoms
- Level of disability
  - Physical
  - Psychological
  - Social
  - Vocational
- Rate of progression and severity of the disease
- Availability of effective treatments

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**THERAPY**

- Complexity of the medical regimen
- Duration of treatment
- Previous treatment failures
- Frequent changes in treatment
- Immediacy of beneficial effects
- Side-effects and the viability of medical support to deal with them

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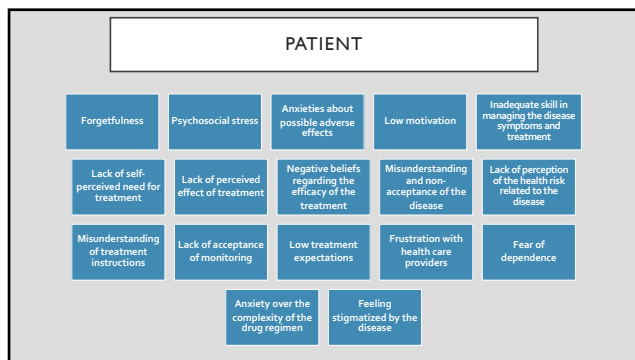
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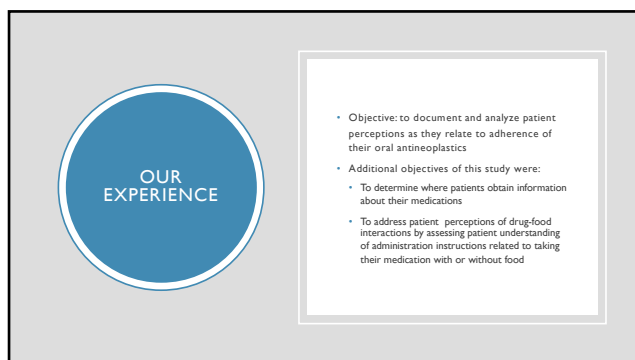
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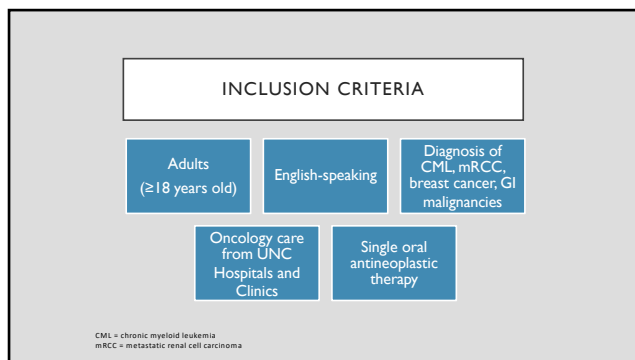
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### SURVEY DEVELOPMENT

- Validated adherence survey
- Questions based on Likert scale
  - [Always, frequently, sometimes, never]
- Areas of focus
  - Frequency and reasons for reducing/skipping doses
  - Sources of information for oral antineoplastic (OA) use
  - Perceived importance of food-drug effects
  - Ease of understanding directions on vial label

Landmark Study: Chew et al Fam Med 2004;36(8):588-94

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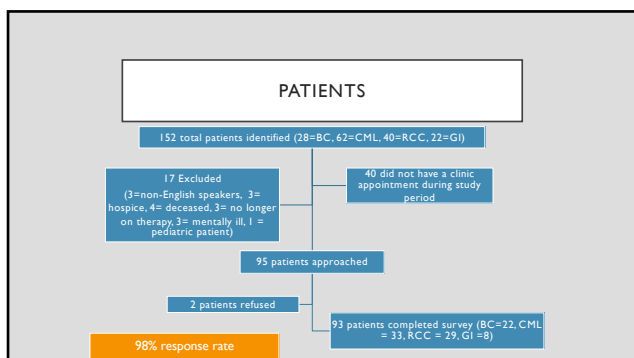
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#### Demographic Information

Characteristics	Frequency
Duration of therapy (≤6 months)	51%
Gender (Female)	51.1%
Age group (>50 years old)	58.7%
Education (Some College)	68.1%

#### Length of Diagnosis

Length of Diagnosis	Percentage
<1 year	1%
1-3 years	23%
4-5 years	37%
>5 years	25%
Don't Know	14%

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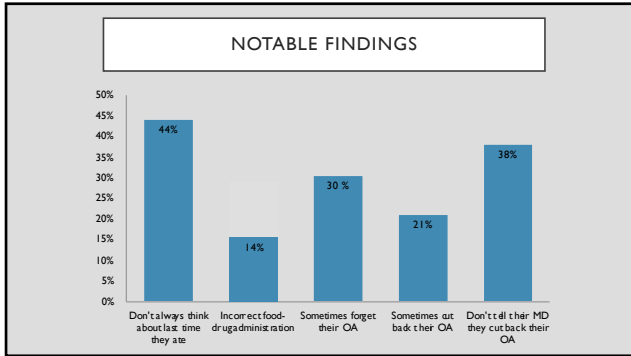
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- UNC'S ADHERENCE STUDY:  
BARRIERS TO APPROPRIATE USE OF ORAL CHEMOTHERAPY
- Confusion or misunderstanding about the timing of drug with food
  - Forgetfulness in oral antineoplastic administration
  - Reducing/stopping drug without informing MD
  - Difficulty understanding directions on the drug vial label

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STRATEGIES FOR MANAGEMENT

Comprehensive care

© Medscape Inc.

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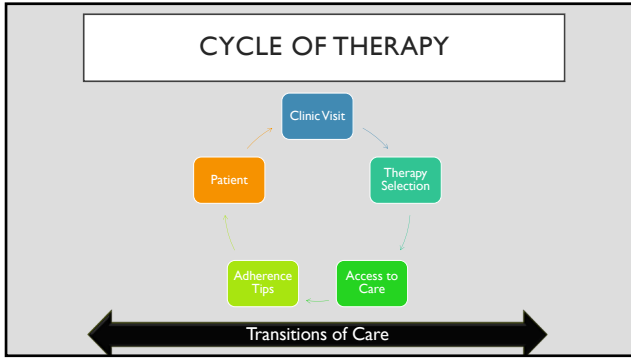
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**ASSESSING ADHERENCE - MORISKY MEDICATION ADHERENCE SCALE**

**DO YOU TAKE YOUR MEDICATIONS THE RIGHT WAY?**

Do you ever forget to take your prescription drugs?  
 Yes  No

Are you careless at times about taking your drugs?  
 Yes  No

Do you sometimes stop taking your drugs when you feel better?  
 Yes  No

Do you sometimes stop taking your drugs if they make you feel worse?  
 Yes  No

Uchmanowicz, Front Pharmacol. 2019; 10:168. Adapted from Morisky et al.

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**ASSESSING ADHERENCE - CML DATA**

Medication Adherence Questionnaire		
Did you forget to take your medication(s) this morning?	Yes (0)	No (1)
Have you run out of medication since your last visit?	Yes (0)	No (1)
Do you ever take your medication(s) later than your usual time?	Yes (0)	No (1)
If you feel worse when taking your medication(s), do you stop taking it?	Yes (0)	No (1)
Do you think that you take too many medications?	Yes (0)	No (1)
Do you ever forget to take your medication(s)?	Yes (0)	No (1)
Do you know the name(s) of your medication(s)?	Yes (1)	No (0)
Do you ever miss doses of your medication(s)?	Yes (0)	No (1)
Does a change in your daily routine modify the way you take your medication(s)?	Yes (0)	No (1)
Do you sometimes skip doses of your medication(s) when you feel better?	Yes (0)	No (1)

Score: Information suggests adherence  
 10 = suggests non-adherence

Dasgupta M, Ojwry M, Leshin P et al. Pharmacotherapy. 2013;33(1):6.

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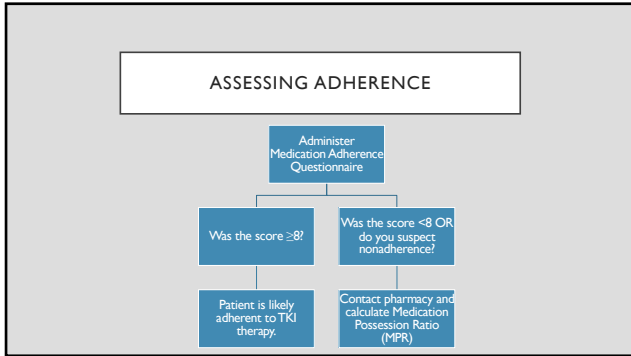
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**ASSESSING ADHERENCE – ONE QUESTION**

Since the last time we saw you, about how many doses of your \_\_\_\_ do you think you may have missed?

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**MEDICATION POSSESSION RATIO (MPR)**

- Obtain records of at least 2 consecutive medication refills.
- Enter data (fill dates, days supply) into the Excel spreadsheet.

Patient Name	Drug	Details of Medication Pick-Up/Delivery	Days Supply	Days in Between Refills	Days with No Medication	Medication Possession Ratio
John Smith	Imatinib	8/12/2013	30	32	2	0.9375

- In the above example, the MPR is 0.9375, or 93.75%.

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### HELPFUL HINTS

Barriers	Solutions
Forgetfulness	Alarm Clock
	Family Members
Side Effects	Close Follow-up
	Early Management
Questions	Empowerment
Cost	Medication Assistance
Complex Regimen	Written Care Plan*

\*Example: www.medactionplan.com, 2020

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### PATIENT CALENDARS

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### ELECTRONIC ADHERENCE MONITORING PROGRAMS

	Engagement	Functionality	Aesthetics	Information	Subjective quality	MARS <sup>®</sup> total score
<b>Advanced apps</b>						
MediSafe	0.94	0.90	0.93	0.93	1.00	0.92
MedicationLearner <sup>®</sup>	0.74	0.90	0.87	0.93	0.78	0.84
Car2u	0.78	0.90	0.93	0.84	0.70	0.83
My Pillbox	0.76	0.83	0.77	0.68	0.53	0.71
DocuSign	0.56	0.90	0.80	0.80	0.55	0.70
MyMedis	0.52	0.75	0.87	0.55	0.48	0.63
<b>Basic apps</b>						
My Smart my Side	0.60	1.00	0.83	0.82	0.58	0.77
MyMediMessage	0.50	0.83	0.70	0.43	0.33	0.60
Pill Reminder (Application)	0.36	0.80	0.60	0.33	0.25	0.47
Legion <sup>®</sup>	0.00	0.00	0.00	0.00	0.00	0.00
MediWiser <sup>®</sup>	0.00	0.00	0.00	0.00	0.00	0.00

Sano et al. JMIR Mhealth Uhealth. 2016; Dec 2:4(4):137.

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**CLINIC VISIT**

- Patients should always voice their preferences
- They should **NOT** walk away feeling like a question was not answered or information wasn't clear
- Patients should be encouraged to write-down questions and answers

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**PATIENT EDUCATION: KEY QUESTIONS**

- Why do I need this drug?
- How long will I stay on it?
- What are the risks of this drug?
- How have other patients like me responded?
- What are alternatives to this therapy?

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**PATIENT EDUCATION**

- Written care plan
- Adverse effects
- Management and tracking systems
- Food-drug administration education techniques



Morning	Evening
7 am - Lapatinib (Tykerb)	8 pm - Dinner
8 am - Breakfast	8:30 pm - Capecitabine (Xeloda)
8:30 am - Capecitabine (Xeloda)	

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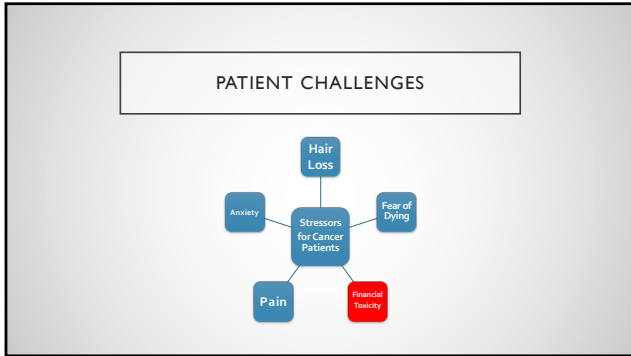
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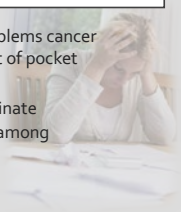
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WHAT IS FINANCIAL TOXICITY?

- Financial toxicity describes problems cancer patients have related to the out of pocket cost of treatment
- Health insurance does not eliminate financial distress or disparities among cancer patients.



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WHAT IS THE RESULT OF FINANCIAL TOXICITY?

- Cancer treatment can affect your ability to work and pay bills
- May be forced to spend retirement savings
- Cut back on food and clothing
- Miss appointments
- Delay care
- Take fewer medications
- May face personal bankruptcy

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WHY AREN'T WE TALKING ABOUT COSTS OF CARE?

- ♥ Want the best care
- 👨‍⚕️ Not my doctor's job
- 🙅 My doctor can't help
- 🗣️ Talked to someone else
- 😳 Embarrassed

Zafar et al ASCO, 2013

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WHY IS FINANCIAL TOXICITY IMPORTANT?

- Cancer treatment is expensive
- Cost sharing is increasing (Claxton, 2016)
- Many patients do not want to discuss cost-related concerns
- Financially toxicity may worsen outcomes and ultimately could increase cost
- Discussing costs decreased expenses (Zafar et al, 2013)

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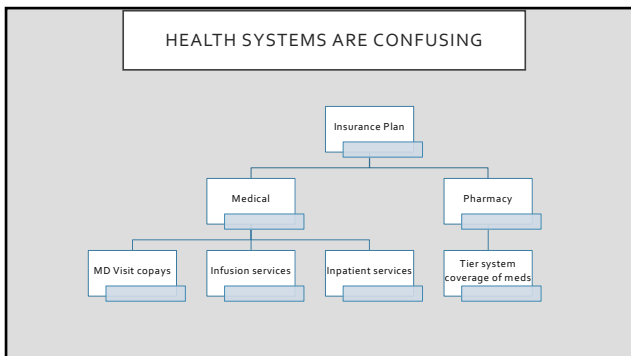
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**INSURANCE LANGUAGE CAN BE CONFUSING**

- **Copayments:** Amount you pay for each healthcare service
- **Deductible:** Amount you pay for your medical care before your insurance plan begins
- **Coinsurance:** Percentage of costs you pay for a service that your health insurance covers after you have paid your deductible
- **Drug formulary:** a list of prescription drugs covered by your plan
- **Specialty Tier:** the highest "tier" for coverage of specialized (expensive) medications



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**THE COST OF CANCER**

The cost of treatment paid by patients is estimated to be \$5,000 to \$8,000 per year on average, although costs vary widely based on type of cancer and type of insurance. (Zafar 2013, Chino 2017)

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**THE COST OF CANCER**


However, there are additional costs beyond medical treatment:

**missing work**

getting **transportation** to treatment

even paying for **parking**.



These costs are estimated to be more than **\$4,000 per year** for the average cancer patient. (Guy, 2014)

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**HOW MANY PEOPLE ARE AFFECTED BY THIS?**

- Financial toxicity is a broad idea- how common it is depends on how you measure it. Here are a few ways researchers have tried to measure this:

**Nearly Half** of cancer patients lost income, or said it was harder to get by. (Zafar, 2015)

**1 in 3** reported using all or most of their savings. (Cagle, 2016)

**1 in 4** went into debt. (Meisenberg, 2015)

**1 in 5** skipped payment on bills or utilities. (Meisenberg, 2015)

**1 in 50** filed for bankruptcy. (Ramsey, 2013)

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**REDUCING FINANCIAL BURDEN: CARES**

<b>Call</b>	Call your insurance representative to discuss treatment plan and associated cost
<b>Ask about</b>	Ask about financial assistance programs you may be eligible for
<b>Request</b>	Request to meet with a financial navigator/financial counselor
<b>Speak</b>	Speak with your cancer care team that should include a pharmacist about cost

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**HOW TO BE PROACTIVE**

<b>Talk</b>	Talk to your physician & social worker
<b>Ask</b>	Ask to speak with a financial counselor
<b>Speak</b>	Speak with your nurse or patient navigator
<b>Understand</b>	Understand the cost of care
<b>Understand</b>	Understand your health insurance; Medicare or Medicaid
<b>Organize</b>	Organize your Medical Bills & Statements
<b>Save</b>	Save money on medications

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**HIGH VALUE INTERVENTIONS**

Choosing Wisely aims to promote conversations that enable patients to choose care that is:

- Supported by evidence
- Not duplicative
- Free from harm
- Truly necessary

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**IMPORTANT RESOURCES**

- Patient Access Network Foundation [www.panfoundation.org](http://www.panfoundation.org)
- Leukemia Lymphoma Society [www.lls.org](http://www.lls.org)
- NeedyMeds [www.needymeds.org](http://www.needymeds.org)
- Rx Assist [www.rxassist.org](http://www.rxassist.org)
- RxHope [www.rxhope.com](http://www.rxhope.com)
- 1 of US [1ofus.org](http://1ofus.org)
- Social Security Compassionate Allowance [www.socialsecurity.gov/compassionateallowances/](http://www.socialsecurity.gov/compassionateallowances/)

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**EXAMPLES FOR UNIQUE RESOURCES**

- Food, utilities, gas → Stop the Monster <http://listtomathemonsterinc.com/contact-us/seek-assistance>
- Counseling, gas cards, peer to peer support, meals → Cornucopia House [www.cancersupport4u.org](http://www.cancersupport4u.org)
- Peer support Buddies (Adults & Young Adults) [www.cancer.net/cooling-with-cancer/finding-support-and-information/finding-support-buddy](http://www.cancer.net/cooling-with-cancer/finding-support-and-information/finding-support-buddy)
- Transportation, home care, childcare → CancerCare [www.cancercare.org](http://www.cancercare.org)

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**TALK TO YOUR PHARMACIST**

Involving your pharmacist is very important

There are creative ways to cut costs for medications including coupons, grants, and payment plans

In addition, your pharmacist can review how you should take your medicines and what to expect as side effects

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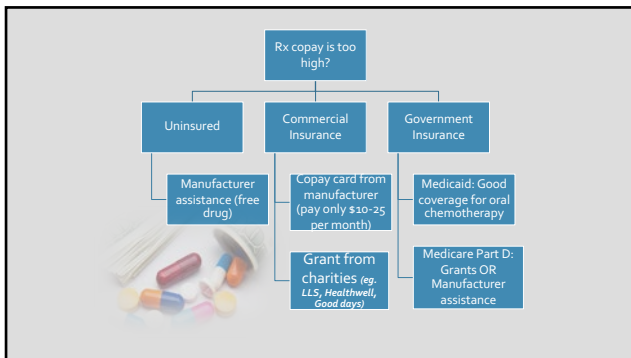
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**MORE TIPS TO MANAGE COST**

- Follow your treatment and medication schedule
- Ask for help with travel costs
- Look for online tools to help with money and budget
- Get emotional support
- Look for ways to ease the tasks of daily living

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