



AVALON HEALTH ECONOMICS

Five Strategies to Better Manage Medical Costs and Economic Damages in Personal Injury Cases



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Overview & Outline

- Volume of personal injury cases has grown
- Size of damages awards has also grown
- Today we discuss 5 strategies to manage the size of settlements & verdicts in these cases:
 - 1) Fair market value & reasonable value of past/incurred medical
 - 2) Fair market value & reasonable value of future/alleged medical
 - 3) Medical review & medical necessity of alleged future care
 - 4) Pre-existing conditions, life expectancy
 - 5) Earnings & work-life expectancy
- Main approach: Applying standard tools from economics & health economics to personal injury cases & product liability cases with medical losses.

Strategy #1:

Calculate Fair & Reasonable Value: Past Medical

- U.S. medical care industry: charges \neq fair market value. Why?
 - Non-profit status \rightarrow bad debt = charity care
 - Managed care \rightarrow creates an arbitrarily high bargaining start point
- Solutions:
 - Apply tools used to estimate fair market value of inpatient, outpatient, and ambulatory surgery center services

"I'm going to start eating at home more & save money"

3 hours later:



Strategy #1: Example of Fair & Reasonable Value: Past Medical

Summary of Doe's Past Professional and Hospital Charges: Charged Amounts vs. Reasonable Value (RV)

Provider	Charged Amount (\$)	Reasonable Value (\$)
Doctors Inc (a)	\$846	\$678
Acute Surgical Care LLC (a)	\$4,499	\$2,920
Regional Medical Center (a)	\$60,324	\$11,404
Burn Center (b)	\$331,486	\$52,236
Hospital (b)	\$3,000,499	\$276,376
Total	\$3,397,654	<u>\$343,614</u>

Notes: (a) Reasonable value calculated using the Professional Services methods described in text. (b) Reasonable value calculated using the Hospital Services methods described in text.



Strategy #2:

Calculate Fair & Reasonable Value: Future Medical

- Future care is increasingly added to claims
 - “Life care plans” (“LCPs”) or independent medical review (“IMR”)
- Same valuation tools used for past/incurred medical billing applied to estimated future care.



Strategy #2: Example of Fair & Reasonable Value: Future Care

Slip & Fall, LE to 70 years

Reasonable Value of Jones LCP for Smith, LE to 70		
Description	LCP Amount (\$)	Reasonable Value (\$)*
Durable Medical Equipment	\$33,905	\$26,615
Facility Care	\$638,190	\$163,085
Future Medical Care - Non-Routine	\$293,562	\$50,744
Medications	\$40,009	\$17,838
Projected Evaluations	\$295	\$256
Projected Therapeutic Modalities	\$2,550	\$1,868
Supplies	\$7,525	\$3,091
Wheelchair Accessories	\$815	\$178
Wheelchair(S) / Mobility / Maintenance	\$3,014	\$488
Total	\$1,019,866	<u>\$264,163</u>
Notes: *Net present value and inflation calculated into amount		



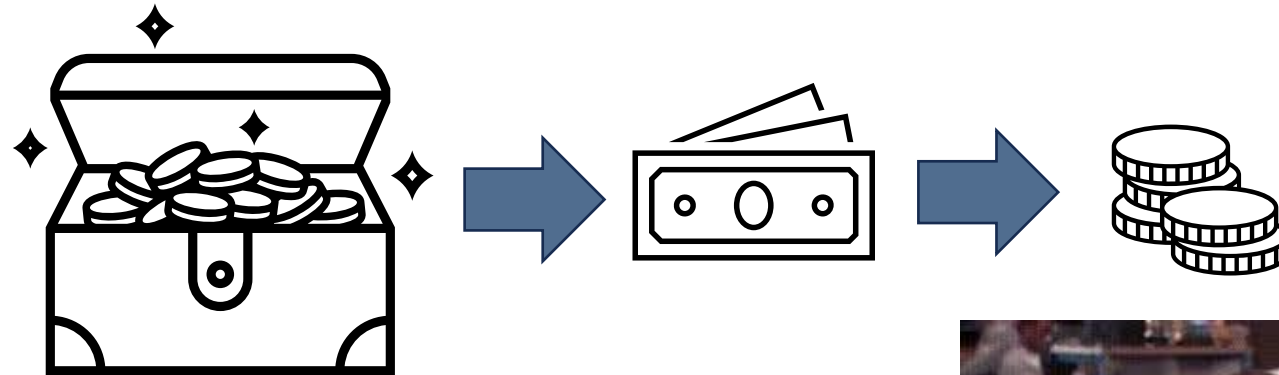
Strategy #2: Common Problems with Life Care Plans

- May contain expected treatments associated with pre-existing conditions
- May contain expected treatments that are not medically necessary
- May contain cost estimates that do not reflect reasonable or fair market value
- Rarely adjusted properly for net present value (NPV)
- Rarely consider pre-existing conditions in estimation of life expectancy



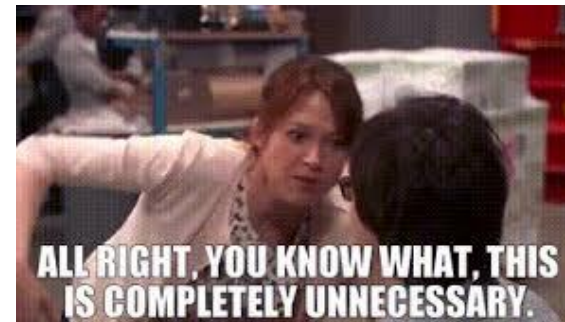
Strategy #3: Medical Review & Medical Necessity

- Creativity in what is considered “medically necessary.”
- Clinical input can be used to further adjust reasonable value of the LCP



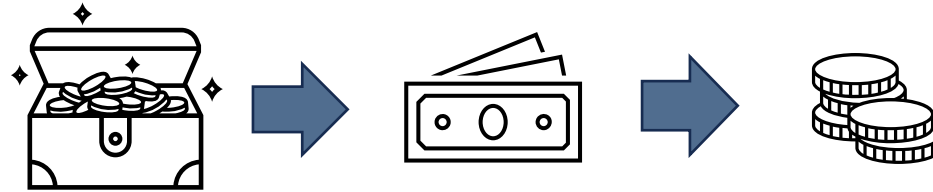
PL Life
care plan

PL LCP with
reasonable
value applied



Strategy #3:

Example: Reasonable Value w/ Medical Review & Medical Necessity

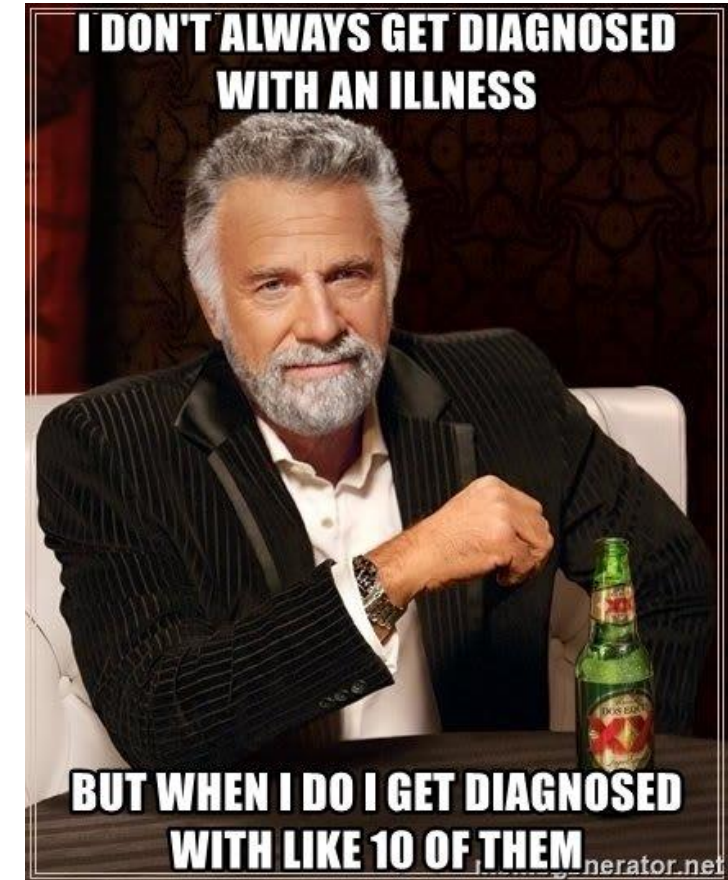


Reasonable Value of Jones LCP for Smith, LE to 70			
Description	LCP Amount (\$)	Reasonable Value (\$)*	Reasonable Value, Adj. for Medical Necessity (\$)
Durable Medical Equipment	\$33,905	\$26,615	\$5,000
Facility Care	\$638,190	\$263,085	\$97,456
Future Medical Care - Non-Routine	\$293,562	\$100,744	\$33,925

Strategy #4:

Pre-Existing Conditions & Life Expectancy

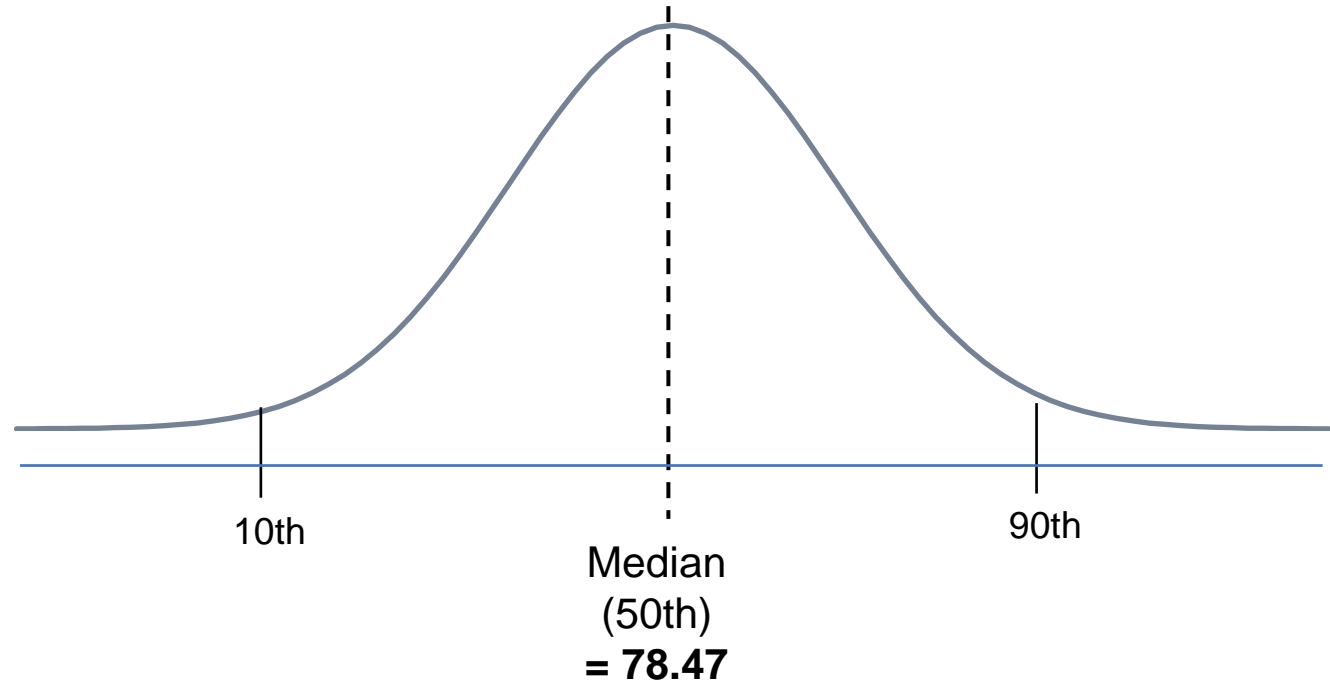
- Many pre-existing conditions reduce life expectancy
 - Implication: standard “life tables” inaccurate for those individuals
 - Shortened life expectancy has implications:
 - Volume & costs of future medical treatment
 - Volume & costs of ancillary services (e.g., home attendants; institutional care)
 - Work life expectancy & wage losses
 - Work productivity
- Initial steps:
 - Remove costs associated with pre-existing conditions.
 - Adjust life expectancy based on pre-existing conditions (tools from health economics & biostatistics)



Strategy #4: Solutions: Adjust Life Expectancy

- Standard life expectancy (LE) is based on “life tables,” which are based on *average population-level* LE at given ages (e.g., based on Social Security Administration)
- For example, at age 35, the average male LE is another 43.27 years, for a total of 78.27).

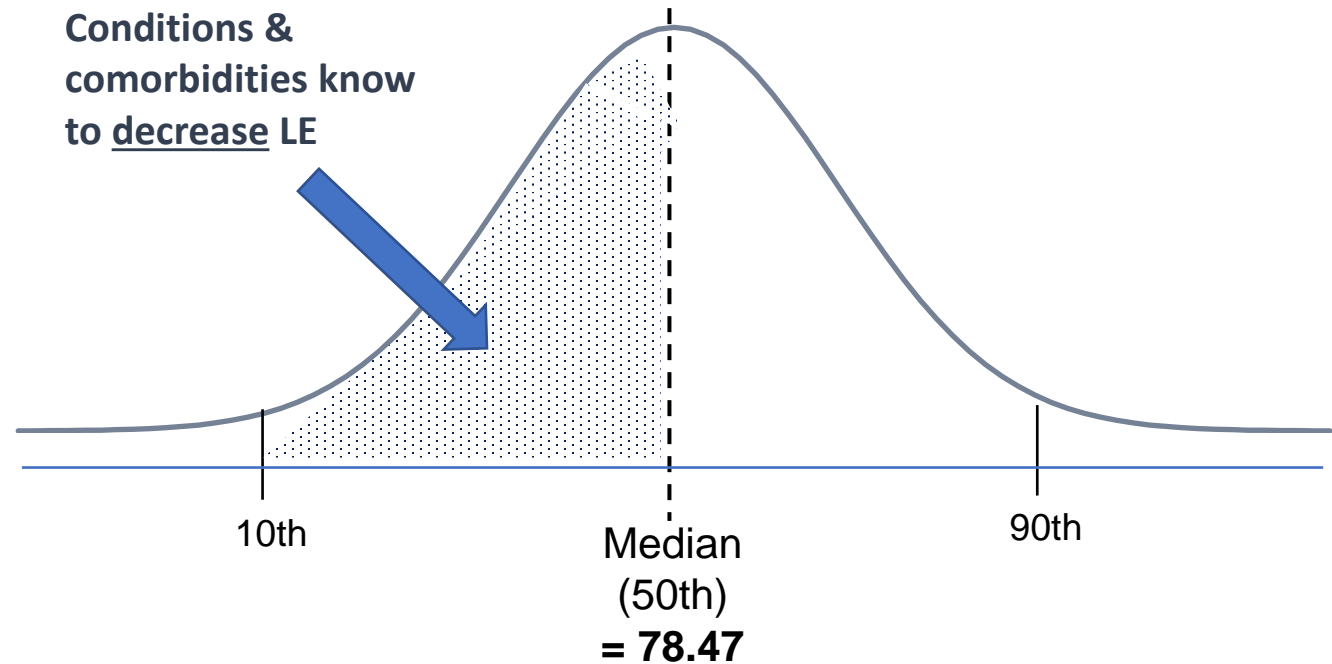
Normal "Bell Curve" Distribution of Life Expectancy for 35 Year Old Male



Strategy #4: Solutions: Adjust Life Expectancy

- Lifetables are based on *population-level averages*. What happens when the a given individual has *known health characteristics* that statistically affect life expectancy?
- Answer: Life tables do *not* apply to these individuals, because the individual is not statistically “average” or “typical.”

Normal "Bell Curve" Distribution of Life Expectancy for 35 Year Old Male





TRUCK ACCIDENT VICTIM?

**YOU NEED THE
STRONG ARM**

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Strategy #4: Solutions: Adjust Life Expectancy

- The fields of health economics, biostatistics, and epidemiology have for decades employed relatively straightforward models to estimate expected LE for individuals with various kinds of conditions.

Co-morbidity	LE Decrement (Percent)	LE Decrement (Years)
Smoking (moderate to heavy)	10-15%	8-12 years
Obesity (moderate to severe/morbid)	12-18%	10-15 years
Type 2 Diabetes	8%-25%	5-20 years
Alcoholism (heavy use or diagnosed with use disorder)	12-18%	10-15 years
Drug abuse (Rx & illicit)	8%-25%	5-20 years
Chronic Obstructive Pulmonary Disease (COPD)	5%-10%	3-7 years
Cardiovascular disease & hypertension	10-15%	8-12 years
Multiple comorbidities (incremental add-on per condition)	2.5%	1.8 years



Strategy #4:

Solutions: Reasonable Value, Medical Necessity, and Adjusted LE

Slip & Fall, LE to 66 years. Plaintiff has: COPD & 2-pack-per-day smoker

TABLE 2.				
Reasonable Value of Jones LCP for Smith, LE to 66			Adjusted LE	
Description	LCP Amount	Reasonable Value (\$)*	LCP Amount	Reasonable Value*
Durable Medical Equipment	\$33,905	\$26,615	\$33,905	\$26,615
Facility Care	\$638,190	\$163,085	\$107,638	\$25,528
Future Medical Care - Non-Routine	\$293,562	\$50,744	\$38,712	\$11,264
Medications	\$40,009	\$17,838	\$8,002	\$3,765
Projected Evaluations	\$295	\$256	\$295	\$256
Projected Therapeutic Modalities	\$2,550	\$1,868	\$846	\$512
Supplies	\$7,525	\$3,091	\$1,505	\$653
Wheelchair Accessories	\$815	\$178	\$815	\$178
Wheelchair(S) / Mobility / Maintenance	\$3,014	\$488	\$3,014	\$488
Total	\$1,019,866	\$264,163	\$184,734	\$69,258
Notes: *Net present value and inflation calculated into amount				



Strategy #5: Earnings & work-life expectancy

- Wages & Earnings
 - Calculating lost wages:
 - Actual past earnings (e.g., avg. based on W-2s)
 - Earnings capacity (e.g., based on Bureau of Labor Statistics & other data)
 - Advantages of actual past earnings: accuracy and validity; reflective of “real world”
 - Advantages of earnings capacity: no penalty for unemployment or choosing not to work
- Economists prefer actual past earnings

When you try to leave work a little early, but your boss reminds you that you have 7 hrs left



Strategy #5: Work-life expectancy

- Work-life expectancy (“WLE”) varies significantly
- Varies by:
 - Type of work (e.g., more labor-intensive or more dangerous jobs) have lower life expectancies
 - Presence of pre-existing conditions reduce life expectancy & work-life expectancy & work productivity
- Any reduction in life expectancy due to pre-existing conditions will also reduce work-life expectancy





Questions & Contact Info

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