

Sample Patient

PLCP™

Prosthetic Lifetime Cost Projection™

Prepared For
Life Care Planner

Prepared By
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Overview

Sample Patient is identified as a 48-year old individual wearing a functional level K3 trans tibial prosthesis subsequent to traumatic amputation caused by a motor vehicle accident.

Prosthetic Life Cost Projection™ for prosthetic services and supplies for Sample Patient are:

Activity of Daily Living Prosthesis			
<i>Item Description</i>	<i>Cost Per Item</i>	<i>Number Items</i>	<i>Total Life Cost</i>
ADL Prosthesis	\$38,933.93	7	\$272,537.51
Replacement Socket	\$11,658.35	7	\$81,608.46
Supplies & Maintenance	\$2,899.18	21	\$60,882.87
Total			\$415,028.85

Special Activity Prosthesis			
<i>Item Description</i>	<i>Cost Per Item</i>	<i>Number Items</i>	<i>Total Life Cost</i>
Activity Prosthesis	\$20,785.95	7	\$145,501.64
Replacement Socket	\$12,466.82	7	\$87,267.73
Supplies & Maintenance	\$3,223.08	21	\$67,684.68
Total			\$300,454.05

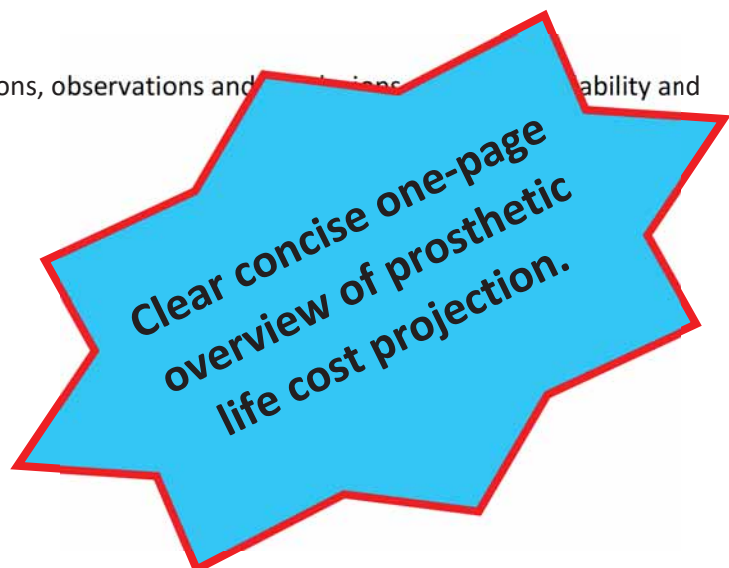
Total Prosthetic Life Cost Projection	\$715,482.90
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The Prosthetic Life Cost Projection™ for Sample Patient is \$715,482.90.

All assumptions, observations and opinions are solely based upon review of the documentation provided.

This report is provided within a reasonable degree of prosthetic accuracy.

I reserve the right to adjust and modify my opinions, observations and conclusions based upon availability and review of additional records or information.



Request

Received request from Life Care Planner to provide a report to project the reasonable and expected costs related to lifetime prosthetic care and equipment for Sample Patient.

Documents Reviewed

Following documents were provided for review:

Documents	# Pages
Prosthetic Clinical Records	37
Physical therapy patient progress notes	25
Prosthetic billing records and EOB	15
PM&R patient progress notes and discharge report	21

I have not spoken with nor personally evaluated the patient, nor have I had any direct communication with any of the individuals named in this litigation or having any involvement with the patient's clinical care and treatment.

Patient Prosthetic Related Medical Prosthetic History

- Sample Patient date of birth is 05/16/1952
- Date of amputation is 02/22/2018 due to trauma related to motor vehicle accident.
- Left limb amputated at level of trans-tibia.
- 02/23/2018: Received immediate post-operative rigid dressing
- 02/26/2018: Initiated physical therapy rehabilitation intervention
- 06/04/2018: Discharged from Hospital
- 07/12/2018: Prescribed preparatory prosthesis, patient identified as functional level K
- 07/20/2018: Provided with preparatory prosthesis
- 12/2/2019: Prescribed ADL prosthesis with functional level K

**Referenced details to
validate and establish
regulatory and industry
standards to support
Life Cost Projection**

Prosthetic Life Cost Assumptions

1. The cost of the prosthesis has been estimated utilizing Manufacturer Suggested Retail Pricing¹ (MSRP) or average Usual and Customary² (U&C) pricing
2. There has been no factor for inflation in this scenario. The estimated cost is at today's dollar value.
3. The style and type of prosthesis proposed is a medically necessary and appropriate design for a functional level K3 individual, defined for a patient that *"Has the ability or potential for ambulation with variable cadence. Typical of the community ambulator who has the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic utilization beyond simple locomotion."*¹
4. This scenario assumes that future prosthetic technology and components will be available at the same relative cost as today's technology.
5. This prosthetic cost estimate has been extended until the patient is 82-years old.³

Prosthetic Life Expectancy

A prosthesis⁴ is classified by Medicare as Durable Medical Equipment, Prosthetics, Orthotics and Supplies (DMEPOS)⁵.

Regulatory standards for the replacement of a prosthetic device stipulate that a prosthesis that has been in continuous use⁶ has a reasonable useful lifetime of no less than 5 years.⁷

The life expectancy of the prosthesis can be negatively affected by, but not limited to:⁸

- A change in the physiological condition of the patient; or
- Irreparable wear of the device or a part of the device; or
- The condition of the device, or part of the device requiring repairs and the cost of such repairs would be more than 60% of the cost of a replacement or the device is replaced.

Detailed prosthetic cost assumptions with references to support statements and cost projection

¹ MSRP obtained from manufacture published pricing for specific components

² U&C calculations based upon a rate 26.5% higher than the average 2019 Medicare rates

³ This is not intended to predict the patient's life expectancy, age 82 has been used as a conservative estimate

⁴ Code of Federal Regulations, Title 42. Public Health, Chapter IV Section § 414.230

⁵ Code of Federal Regulations, Title 42. Public Health, Chapter IV, Section § 424.57

⁶ Code of Federal Regulations, Title 42. Public Health, Chapter IV, Section § 414.230

⁷ Code of Federal Regulations, Title 42. Public Health, Chapter IV, Section § 414.210 (e), (5),

⁸ Local Coverage Article: Lower Limb Prostheses - Policy Article (A52496)

Prosthetic Medical Necessity and Functional Level^{9,10}

Prosthetic services and components are considered “reasonable and necessary”, based on Social Security Act § 1862(a)(1)(A) provisions. Reasonable & Necessary are defined as medical necessity for prosthetic intervention when a qualified health care professional evaluates and documents that an individual with an amputation:

1. Will reach or maintain a defined functional state within a reasonable period-of-time; and
2. Is motivated to ambulate.

Determination of medical necessity for certain components/additions to the prosthesis is based on the patient’s potential functional abilities. Potential functional ability is based on, but not limited to:

1. The individual’s past-history (including prior prosthetic use if applicable); and
2. The individual’s current condition including the status of the residual limb and the nature of other medical problems; and
3. The individual’s desire to ambulate.

Clinical assessments of beneficiary rehabilitation potential are based on the following classification levels:

- Level 1: Has the ability or potential to use a prosthesis for transfers or ambulation on level surfaces at fixed cadence. Typical of the limited and unlimited household ambulator.
- Level 2: Has the ability or potential for ambulation with the ability to traverse low level environmental barriers such as curbs, stairs or uneven surfaces. Typical of the limited community ambulator.
- Level 3: Has the ability or potential for ambulation with variable cadence. Typical of the community ambulator who has the ability to traverse most environmental barriers and may have vocational, therapeutic, or exercise activity that demands prosthetic utilization beyond simple locomotion.
- Level 4: Has the ability or potential for prosthetic ambulation that exceeds basic ambulation skills, exhibiting high impact, stress, or energy levels. Typical of the prosthetic demands of the child, active adult, or athlete.

With the provision of prosthetic services and components, the following items are included in the reimbursement for a prosthesis:

- Evaluation of the residual limb and gait
- Fitting of the prosthesis
- Cost of base component parts and labor contained in H
- Repairs due to normal wear or tear within 90 days of

**Referenced details to
validate and establish
regulatory and industry
standards to support
Life Cost Projection**

⁹ Local Coverage Determination (LCD): Lower Limb Prostheses (L33787)

¹⁰ Local Coverage Article: Lower Limb Prostheses - Policy Article (A52496)

Prosthetic Designs

Activities of Daily Living Prosthesis

Prosthesis designed to provide function comfort and function and enable the individual to accomplish expected activities of daily functional level K3 actions that include walking on uneven surfaces and terrain, ascending and descending stairs and ramps and being able to change speeds while ambulating (variable cadence). The ADL prosthesis is expected to have the features and functions to enable the wearer to have access to a community environment and to perform routine vocational tasks while wearing the prosthesis.

Special Activity Prosthesis

The ADL Prosthesis may not be able to accommodate appropriate function, durability, comfort or cosmetics for every aspect of a patient's day to day living. It therefore may be required to provide the patient with an Activity Prosthesis. Evidence based clinical practice guidelines^{11, 12} identify the clinical efficacy of specialized prosthetic limbs that are "specifically focused on certain functional tasks"¹³. Specialty prosthesis enable the prosthetic wearer to participate in employment, social or personal activities that they otherwise would be restricted due to the limitations of the ADL Prosthesis. This life cost estimate has included the use of an Activity Prosthesis in the event the patient may have employment, recreational or specialized activities that may require the features and benefits afforded with this device.

Replacement Socket

Due to normal and expected changes in the residual limb, the prosthetic socket may lose appropriate fit and function while the prosthetic components (knee, foot, ankle) are still functional and appropriate. In this event the prosthetic socket is replaced and secured to the existing prosthetic components.

Supplies and Maintenance

Due to routine daily use of the prosthesis combined with normal changes in the patient's skin, there will be routine maintenance and repairs as well as a need for basic supplies. The prosthesis should be kept clean and dry to the skin and over an extended period can cause hygiene issues related to the skin. The prosthesis should be replaced on a yearly basis.

There is no need for supplies and maintenance expense. The replacement socket are being provided, as the prosthes

¹¹ VA/DoD Evidence-Based Clinical Practice Guideline for rehabilitation of Veterans with Traumatic Brain Injury. Patient Guide. Version 2.0 – 2017

¹² Va/Dod Clinical Practice Guideline for Rehabilitation of Lower Limb Amputation. Department of Defense, Department of Defense, Guideline Summary, January 2008

¹³ The Next Step, The Rehabilitation Journey after Lower Limb Amputation,

Detailed definitions and justification to identify prosthetic design, style and type

ADL Prosthesis & Replacement Socket

Prosthesis has a typical life expectancy of 5 years.

The expectation is that the socket will require replacement once every 2.5 years to accommodate physiological change in the size and shape of the residual a limb.

This pattern will result in the patient receiving a new prosthesis once every 5 years, and a replacement socket in between receiving each new prosthesis.

Activities of Daily Living Prosthesis				
<i>L Code</i>	<i>Qty</i>	<i>Component Short Discription</i>	<i>MSPR Price Per Unit</i>	<i>Usual & Customary</i>
L5301	1	Bk mold socket sach ft endo	\$3,338	\$3,338.29
L5620	2	Test socket below knee	\$404	\$808.44
L5629	1	Below knee acrylic socket	\$462	\$462.06
L5637	1	Below knee total contact	\$420	\$420.03
L5685	2	Below knee sus/seal sleeve	\$167	\$334.67
L5679	1	Socket insert w/o lock mech	\$810	\$809.60
L5645	1	Bk flex inner socket ext fra	\$1,160	\$1,160.09
L5962	1	Below knee flex cover system	\$855	\$854.61
L5704	1	Custom shape cover bk	\$766	\$765.58
L5685	2	Below knee sus/seal sleeve	\$167	\$334.67
L5781	1	Lower limb pros vacuum pump	\$5,227	\$5,227.10
L5973	1	Ank-foot sys dors-plant flex	\$22,798	\$22,797.66
L5910	1	Endo below knee alignable sy	\$527	\$526.59
L5940	1	Endo bk ultra-light material	\$729	\$729.31
L8400	6	Sheath below knee	\$23	\$137.33
L8420	6	Prosthetic sock multi ply bk	\$28	\$169.68
L8470	6	Pros sock single ply bk	\$10	\$58.21
Total				\$38,933.93
ADL Replacement Socket				
<i>L Code</i>	<i>Qty</i>	<i>Component Short Discription</i>	<i>MSPR Price Per Unit</i>	<i>Usual & Customary</i>
L5701	1	Replace socket above knee	\$4,944	\$4,943.60
L5620	1	Test socket below knee	\$404	\$404.22
L5629	1	Below knee acrylic socket	\$462	\$462.06
L5637	1	Below knee total contact		
L5645	1	Bk flex inner socket ext fra		
L5647	1	Below knee suction socket		
L5679	2	Socket insert w/o lock mech		
L5685	2	Below knee sus/seal sleeve		
L5940	1	Endo bk ultra-light material		
L8400	6	Sheath below knee		
L8420	6	Prosthetic sock multi ply bk		
L8440	2	Shrinker below knee		
Total				\$35

**Detailed line item listing
of each prosthetic L-
code with description
and MSRP/U&C Pricing**

Special Activity Prosthesis & Replacement Socket

Prosthesis has a typical life expectancy of 5 years. The expectation is that the socket will require replacement once every 2.5 years to accommodate physiological change in the size and shape of the residual a limb.

This pattern will result in the patient receiving a new prosthesis once every 5 years, and a replacement socket in between receiving each new prosthesis.

This prosthesis will include a vertical shock energy storing foot, custom socket inserts and flexible socket.

Special Activity Prosthesis				
L Code	Qty	Component Short Discription	MSPR Price Per Unit	Usual & Customary
L5301	1	Bk mold socket sach ft endo	\$3,338	\$3,338.29
L5620	2	Test socket below knee	\$404	\$808.44
L5629	1	Below knee acrylic socket	\$462	\$462.06
L5637	1	Below knee total contact	\$420	\$420.03
L5673	1	Socket insert w lock mech	\$972	\$971.55
L5671	2	Bk/ak locking mechanism	\$723	\$1,446.42
L5645	2	Bk flex inner socket ext fra	\$1,160	\$2,320.19
L5987	1	Shank ft w vert load pylon	\$9,398	\$9,397.85
L5910	1	Endo below knee alignable sy	\$527	\$526.59
L5940	1	Endo bk ultra-light material	\$729	\$729.31
L8400	6	Sheath below knee	\$23	\$137.33
L8420	6	Prosthetic sock multi ply bk	\$28	\$169.68
L8470	6	Pros sock single ply bk	\$10	\$58.21
Total				\$20,785.95
Special Activity Prosthesis Replacement Socket				
L Code	Qty	Component Short Discription	MSPR Price Per Unit	Usual & Customary
L5701	1	Replace socket above knee	\$4,944	\$4,943.60
L5620	2	Test socket below knee	\$404	\$808.44
L5629	1	Below knee acrylic socket	\$462	\$462.06
L5637	1	Below knee total contact	\$420	\$420.03
L5673	1	Socket insert w lock mech		
L5671	2	Bk/ak locking mechanism		
L5645	2	Bk flex inner socket ext fra		
L5940	1	Endo bk ultra-light material		
L8400	6	Sheath below knee		
L8420	6	Prosthetic sock multi ply bk		
L8470	6	Pros sock single ply bk		
Total				\$6,821.60

Detailed line item listing
of each prosthetic L-
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Supplies and Maintenance

Due to routine wear and tear to the prosthesis combined with normal changes in the patient's condition, there will be routine maintenance and repairs as well as a need for basic supplies. There is no need for supplies and maintenance expense consideration for the years that a new prosthesis or replacement socket are being provided, as the prosthesis and socket include liners, socks and follow-up care.

ADL Supplies & Maintenance				
<i>L Code</i>	<i>Qty</i>	<i>Component Short Discription</i>	<i>MSPR Price Per Unit</i>	<i>Usual & Customary</i>
L7510	1	Replace Minor Parts	\$189	\$189.00
L7520	16	Repair Labor, Per 15 Minutes	\$45	\$725.76
L5679	2	Socket insert w/o lock mech	\$810	\$1,619.20
L8400	6	Sheath below knee	\$23	\$137.33
L8420	6	Prosthetic sock multi ply bk	\$28	\$169.68
L8470	6	Pros sock single ply bk	\$10	\$58.21
Total				\$2,899.18
Special Activity Prosthesis Supplies & Maintenance				
<i>L Code</i>	<i>Qty</i>	<i>Component Short Discription</i>	<i>MSPR Price Per Unit</i>	<i>Usual & Customary</i>
L7510	1	Replace Minor Parts	\$189	\$189.00
L7520	16	Repair Labor, Per 15 Minutes	\$45	\$725.76
L8400	6	Sheath below knee	\$23	\$137.33
L8420	6	Prosthetic sock multi ply bk	\$28	\$169.68
L8470	6	Pros sock single ply bk	\$10	\$58.21
L5673	2	Socket insert w lock mech	\$972	\$1,943.10
Total				\$3,223.08

**Detailed line item listing
of each prosthetic L-
code with description
and MSRP/U&C Pricing**

Prosthetic Life Cost Projection™

Year of Birth	16-May 1971	Trans Tibial Prosthetic Life Time Cost						
		Activity of Daily Living Prosthesis			Special Activity Prosthesis			Running Total
Patient's Age	Year	ADL Prosthesis	Replacement Socket	Supplies & Maintenance	Activity Prosthesis	Replacement Socket	Supplies & Maintenance	
48	2019	\$38,933.93			\$20,785.95			\$59,719.88
49	2020			\$2,899.18			\$3,223.08	\$65,842.14
50	2021			\$2,899.18			\$3,223.08	\$71,964.41
51	2022		\$11,658.35			\$12,466.82		\$96,089.58
52	2023			\$2,899.18			\$3,223.08	\$102,211.84
53	2024	\$38,933.93			\$20,785.95			\$161,931.72
54	2025			\$2,899.18			\$3,223.08	\$168,053.99
55	2026			\$2,899.18			\$3,223.08	\$174,176.25
56	2027		\$11,658.35			\$12,466.82		\$198,301.42
57	2028			\$2,899.18			\$3,223.08	\$204,423.69
58	2029	\$38,933.93			\$20,785.95			\$264,143.57
59	2030			\$2,899.18			\$3,223.08	\$270,265.83
60	2031			\$2,899.18			\$3,223.08	\$276,388.09
61	2032		\$11,658.35			\$12,466.82		\$300,513.26
62	2033			\$2,899.18			\$3,223.08	\$306,635.53
63	2034	\$38,933.93			\$20,785.95			\$366,355.41
64	2035			\$2,899.18			\$3,223.08	\$372,477.67
65	2036			\$2,899.18			\$3,223.08	\$378,599.94
66	2037		\$11,658.35			\$12,466.82		\$402,725.11
67	2038			\$2,899.18			\$3,223.08	\$408,847.37
68	2039	\$38,933.93			\$20,785.95			\$468,567.25
69	2040			\$2,899.18			\$3,223.08	\$474,689.51
70	2041			\$2,899.18			\$3,223.08	\$480,811.78
71	2042		\$11,658.35			\$12,466.82		\$504,936.95
72	2043			\$2,899.18			\$3,223.08	\$511,059.21
73	2044	\$38,933.93			\$20,785.95			\$570,779.09
74	2045			\$2,899.18			\$3,223.08	\$576,901.36
75	2046			\$2,899.18			\$3,223.08	\$583,023.62
76	2047		\$11,658.35			\$12,466.82		\$607,148.79
77	2048			\$2,899.18			\$3,223.08	\$613,271.06
78	2049	\$38,933.93			\$20,785.95			\$672,990.94
79	2050			\$2,899.18				\$679,113.20
80	2051			\$2,899.18				
81	2052		\$11,658.35					
82	2053			\$2,899.18				
Sub Totals		\$272,537.51	\$81,608.46	\$60,882.87				
Life Total			\$415,028.85					

Comprehensive
overview listing of
specific costs per year
per device

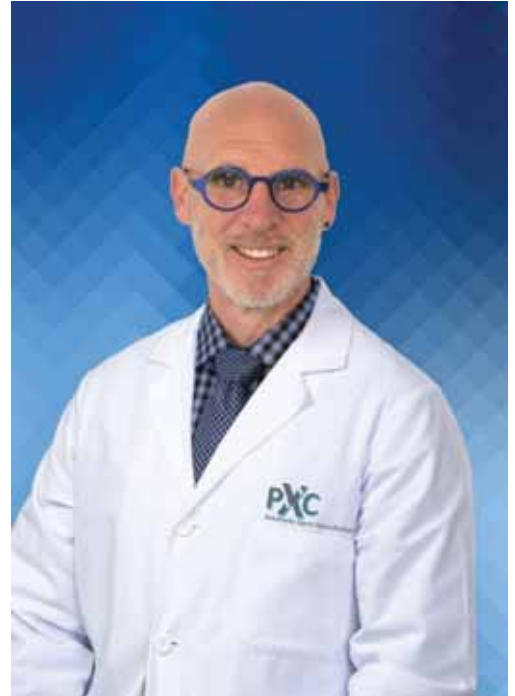
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Experienced

- ✓ Certified by the American Board for Certification in Orthotics & Prosthetics as Prosthetist (CP002254)
- ✓ Certified by the Canadian Board for Certification of Prosthetists and Orthotists as a Prosthetist (CP 308) and as a Registered Technician (RTP2243).
- ✓ Fellow of the American Academy of Orthotists & Prosthetists (FAAOP)
- ✓ Licensed Prosthetist (LP) in Texas (#1830), Illinois (#211-000092) and Minnesota (#1027)
- ✓ Over 39 years of clinical care experience, 20 of those years as VP Clinical Operations for the largest provider of prosthesis in the nation with 800 clinics and 2,000 clinicians treating 1 Million patients per year.
- ✓ Invented advanced prosthetic assessment validation evaluation test, process & protocol, currently identified as industry standard and utilized by major insurance companies nationwide.
- ✓ Developed clinical operational procedure resulting in the approval of advanced computerized prosthesis for over 25,000 individuals with above knee amputation.



Expert

- ✓ Testified in over 3,500 ALJ cases related to prosthetic benefits and medical necessity verification.
- ✓ Prepared over 5,000 prosthetic life cost plans.
- ✓ Successfully appealed and overturned over 4,000 insurance denials for prosthetic devices and services.
- ✓ Extensive experience as defense & plaintiff prosthetic expert witness for deposition and in-court testimony.
- ✓ Authored 28 articles including peer reviewed studies, technical/clinical reviews and editorials.
- ✓ Invited Guest Lecturer at over 100 national and international scientific symposiums

Excellence

- ✓ Selected to serve as Chair for National Symposium at Walter Reed Army Medical Hospital to set procedure and policy to treat soldiers injured with above knee amputation
- ✓ Established Prosthetic Clinic at Albert Schweitzer Hospital in Haiti and served as Clinical Coordinator to treat over 4,000 amputees that lost limbs in the 2010 earthquake.
- ✓ Served as Team Leader in 2002 for Operation First Step, a humanitarian relief effort to establish a clinic in Kabul Afghanistan to treat victims that lost limbs from land mines.

