

Financial Feasibility of Robotics in Neurorehabilitation



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Objectives

- Understand how a break even analysis can guide business decisions
- Become familiar with the process for performing break even analysis for robotic devices in your clinic
- Compare the long term profit between robotic devices and non robotic devices for locomotor training.



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Why Would A Clinic Want To Add Robotics?

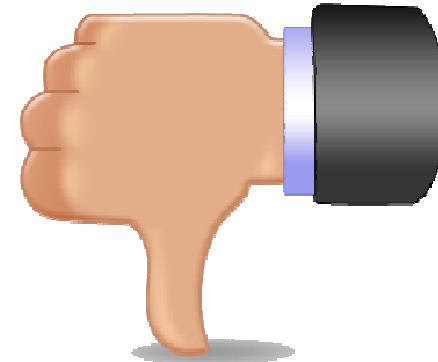
- “Cutting Edge”
- Patient/family expectations
- Marketing benefits
- Better outcomes (?)
- Decrease personnel (?)
- Increase revenue (?)
- Research: Repeated motions that are reproducible
- Other thoughts?



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Why Would A Clinic Be Cautious of Adding Robotics?

- Cost
- Time to educate and orient
- Less “hands on”
- Other thoughts?



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Can A Clinic Afford Robotics?



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Break Even Analysis

- The break-even point for a product or service is the point where total revenue received equals the total costs associated with the sale of the product or service
- Volume required to start making a profit



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Break Even Analysis

- Determines if service will be profitable
- Can assist with determining optimum prices
- Gives unit targets to increase profit



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Steps

1. Determine variable costs and fixed costs
2. Determine price (consider reimbursement)
3. Determine unit contribution margin
4. Determine break even points and revenue



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Locomotor Training Examples

- Lokomat® Pro
- Lokomat® Nanos
- Manual Assisted BWS Treadmill System

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Lokomat® Pro

Variable Costs Per Unit

Description	Amount
direct labor and benefits	\$ 41.27
cleaning materials	
fuel or variable utilities	-
sales commissions	-
distribution	-
Total Variable Costs Per Unit	\$ 41.27

Unit Sales Price \$ 140.00

Unit Contribution Margin \$ 98.73

Fixed Costs

Description	Amount
Equipment	\$ 304,000
rent	-
equipment	500
utilities	-
taxes (property, etc)	-
office supplies	-
insurance	-
loan interest	-
depreciation	30,400
license fees	-
maintenance & repairs	14,995
miscellaneous other	
Total Fixed Costs	\$ 349,895

Breakeven Point (units) 3,544

Breakeven Point (\$'s) \$ 496,160



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Lokomat® Pro Break Even

- Break Even units = 3,544 hours
- 6 patients per day
 - 6 hours per day
 - 6 hours x 5 days per week = 30 hours per week
 - 30 hours per week x 50 weeks = 1,500 per year
- 2.36 years to break even



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Lokomat® Nanos Break Even

- Break Even units = 2,630
- 6 patients per day
 - 6 hours per day
 - 6 hours x 5 days per week = 30 hours per week
 - 30 hours per week x 50 weeks = 1,500 per year
- 1.75 years to break even



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Manual Treadmill Break Even

- Break Even units = 2,394
- 6 patients per day
 - 6 hours per day
 - 6 hours x 5 days per week = 30 hours per week
 - 30 hours per week x 50 weeks = 1,500 per year
- 1.6 years to break even



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5- Year Profit Comparison

	Break Even	1 year Profit	2 year Profit	3 year Profit	4 year Profit	5 year Profit
Lokomat Pro	3,544	\$(202,000)	\$(54,000)	\$94,000	\$242,000	\$391,000
Nanos	2,630	\$(112,000)	\$37,000	\$185,000	\$333,000	\$481,000
Manual	2,394	\$(45,000)	\$30,000	\$106,000	\$181,000	\$256,000

Over 5 years

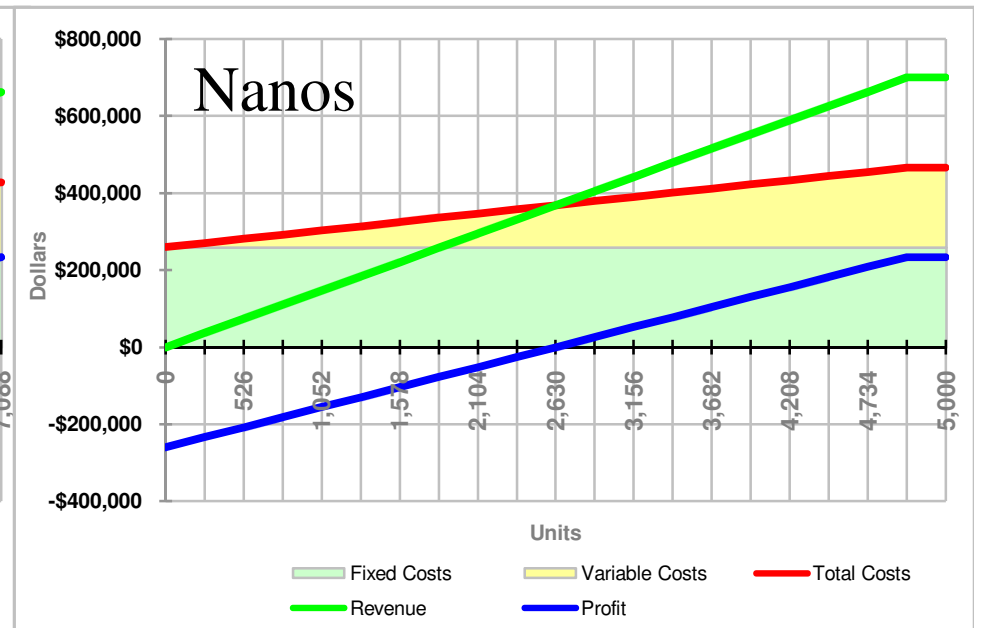
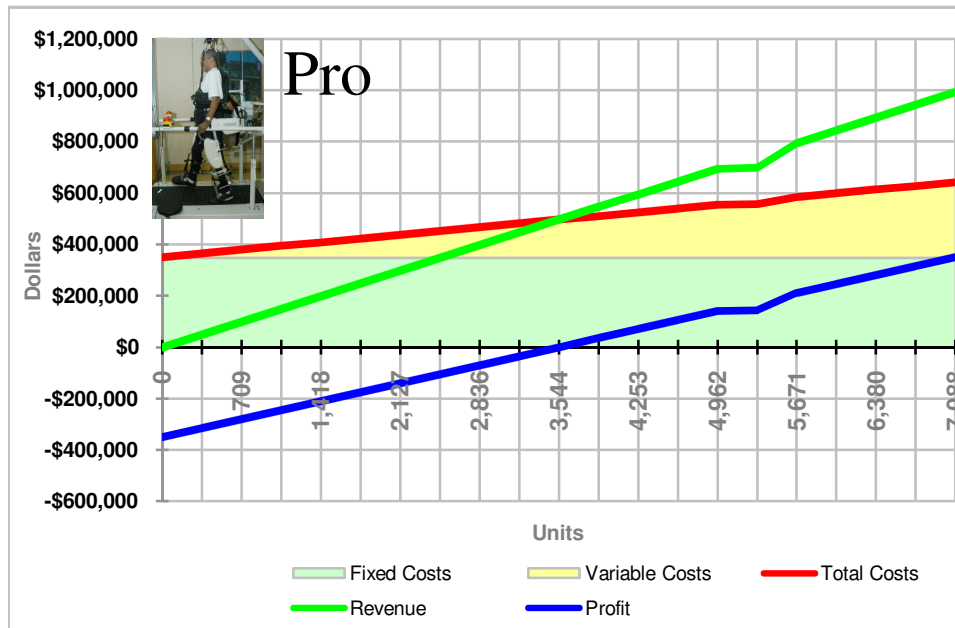
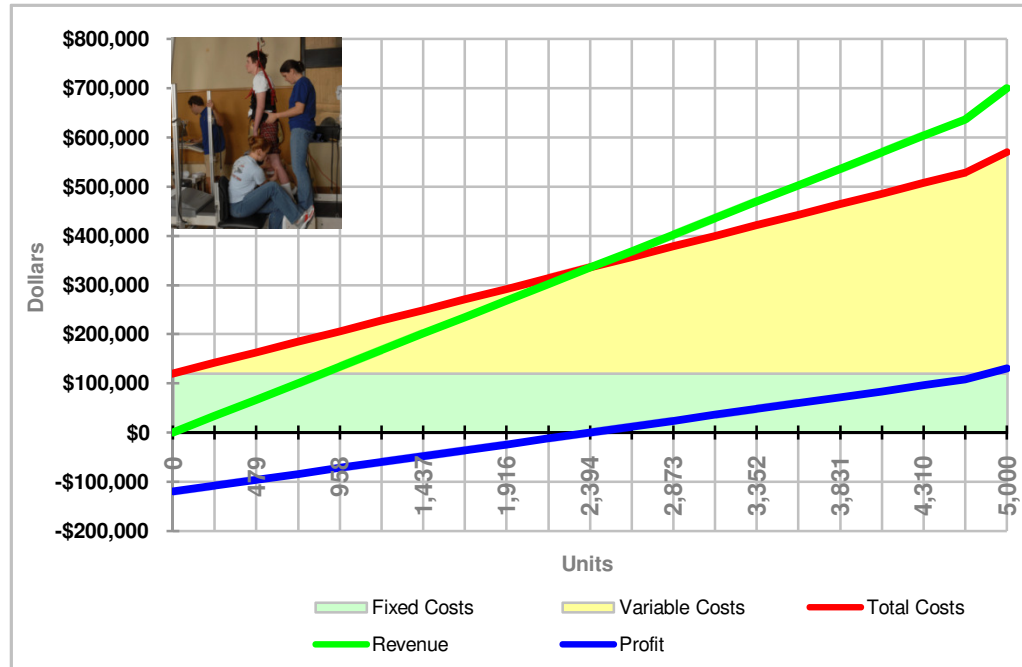
Lokomat \$78,200/year average profit

Nannos \$96,200/year average profit

Manual \$51,200/year average profit



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Ways to Lower Break Even Point (or ways to make \$ sooner)

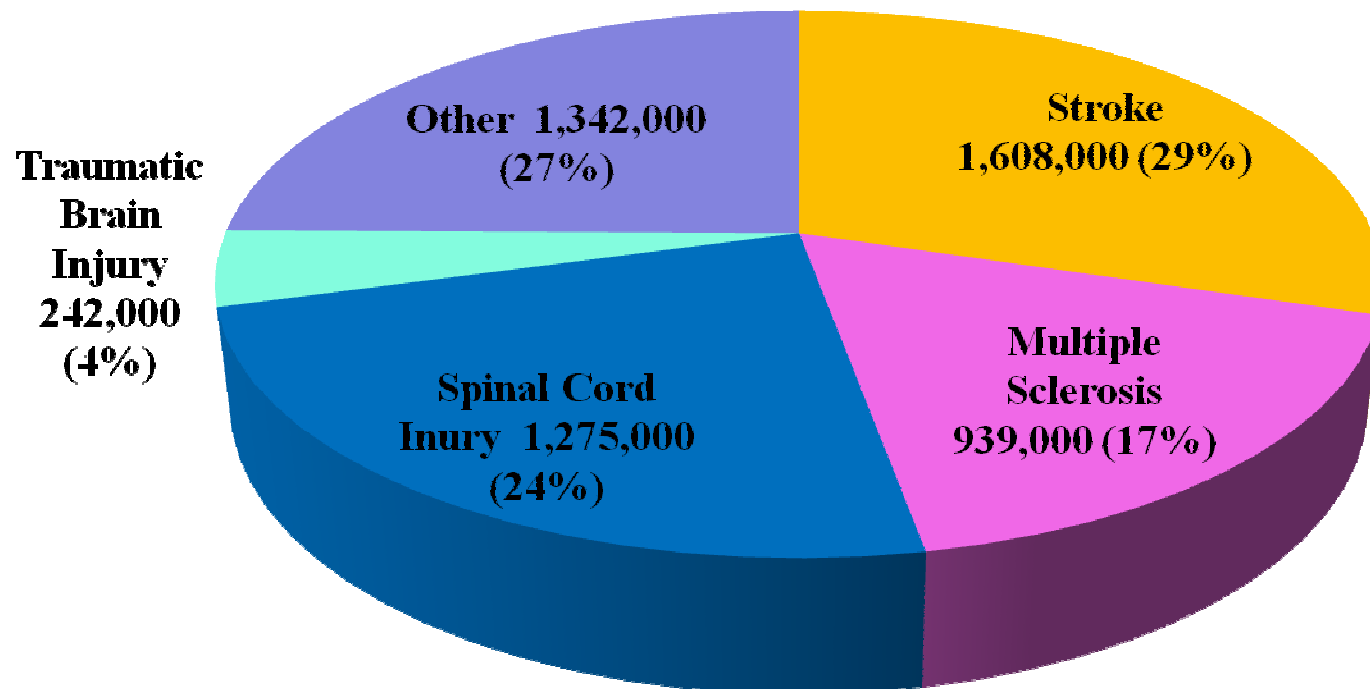
- Raise Prices (does NOT mean you will get paid more)
- Decrease expenses
- Increase # of procedures per day



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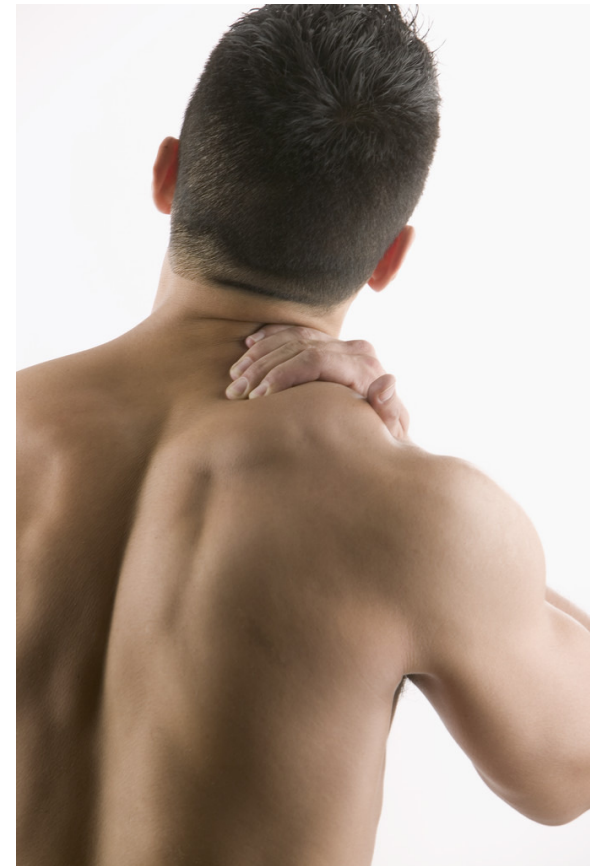
Prevalence of Paralysis



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Other Considerations

- Cancellation Rates
 - Traditional no show
 - Robotic LT no show
- No Shows
 - Cost of staff
- Staff Injuries



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Summary

- Break even analysis can give you or administrators an idea of financial feasibility
- Need to consider short term and long term financial gains of any equipment
- Also need to consider ancillary gains (increased referrals, etc)



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