Utility of a Limb Lengthening and Complex Reconstruction Service in an Academic Dept. of Orthopedic Surgery

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Disclosures
Introduction

- AAOS subspecialty society in 2000
- Separate clinical service is rare
- HSS has such a dedicated service
  - Limb Lengthening & Complex Reconstruction Service (LLCRS)
  - Started in 2005
  - Attending Surgeons (2), Fellows (2), PA's (2), Nurses (2), Research coordinator (1)
What is the utility of a LLCRS in an academic dept. of Orthopedic Surgery?

Examination of data
- Referral patterns
- Surgical cases
- Academic productivity
Methods

- Numbers of surgical cases 2007-2013
  - Evaluate growth
- Demographic data (prospective)
  - One year of consecutive surgical cases
  - 672 cases (March 2013- Feb. 2014)
  - Referral patterns
  - Anatomic region
  - Surgical category
  - Use of technique/ tool
Role of Limb Lengthening and Complex Reconstruction Service in an Academic Dept. of Orthopaedic Surgery

Data Sheet (Check all that apply)

Name of patient: ________________________________

Date of Surgery: ________________________________

Surgeon: __ Rozbruch __ Fragomen

Referral: __ self __ Orthopedic surgeon __ other doctor __ patient __ HSS __ Other medical Center __ N/A __ internet

HSS Referral: Referring service

__ foot & ankle __ Trauma __ Tumor __ Peds __ Arthroplasty

__ Hand __ Sports __ Physiatry __ Spine __ Medicine

Surgery Site:

__ hip __ femur __ knee __ tibia __ ankle __ foot

__ humerus __ elbow __ forearm __ wrist __ hand

Surgical Category:

__ Trauma/Reconstruction __ Foot &Ankle __ Tumor __ Pediatric

__ Arthroplasty __ Other adult deformity __ Limb Salvage __ Upper extremity

Technique/Tool:

__ Internal lengthening nail __ Plate __ IM nail (static) __ circular frame

__ Monolateral frame __ Integrated fixation __ THR __ TKR __ UKR
Outpatient Visits: 54% Growth

Outpatient Visits

2007 | 2013
---|---
2200 | 3500

0 | 500 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500 | 4000

Outpatient Visits
Surgical Volume: 42% Growth

![Surgical Volume Graph]

- 2007: 500
- 2013: 700

Surgical Volume
Sources of Referral

- Orthopedic Surgeons: 56%
- Internet Research: 25%
- Other Physicians: 7%
- Other Healthcare Professionals: 6%
- Other Patients: 5%
Physician Referrals

- Own Medical Center: 83%
- Other Medical Center: 17%

Legend:
- Blue: Own Medical Center
- Red: Other Medical Center
Intramural Referrals From Various Services at HSS

- Foot & Ankle: 54%
- Trauma: 8%
- Arthroplasty: 4%
- Sports: 12%
- Tumor: 10%
- Referral Service: 8%
Surgical Categories

- Foot & Ankle: 39%
- Adult Deformity: 25%
- Trauma & Reconstruction: 19%
- Arthroplasty: 6%
- Pediatric: 5%
- Limb Salvage: 2%
- Tumor: 2%
- Upper Extremity: 2%
Technical Tool Used

- 58% Circular Frame
- 6% Monolateral Frame
- 6% Static Intramedullary Nail
- 8% Integrated Fixation
- 8% Internal Lengthening Nail
- 8% Plate
- 8% Arthroplasty
- 2% Arthroscopy
- 5% Other
Academic Activity

• 2005- 2014
• 49 peer reviewed articles
• 23 book chapters, review articles, web based publications
Role for LLCRS academic center
  • substantial

Majority of referrals were from Orthop. Surg. From our own medical center
  • Suggesting needfulness

Referring Services
  • Foot & ankle, Trauma, Arthroplasty, Sports

Academic Activity has been substantial
Conclusions 2

- Provides access to patients
  - Specialized surgery
- Surgical volume growth can be expected
  - Intra and extramural referrals
- Great Potential of dedicated LLCRS
  - Hospital leadership
  - Young Orthopedic Surgeons
Thank You

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