



MEDICAL TOURISM AND INFECTION CONTROL

San Diego/Imperial and Inland Empire
APIC Conference
Samantha Tweeten

COUNTY OF SAN DIEGO
HHSA
HEALTH AND HUMAN SERVICES AGENCY
PUBLIC HEALTH SERVICES

 **LIVE WELL
SAN DIEGO**



LEARNING OBJECTIVES

THE ATTENDEE WILL BE ABLE TO:

- Describe medical tourism
- Discuss the importance of medical tourism for Infection Control
- Describe organisms of current interest in medical tourism cases
- Understand the role of Public Health in these cases

MEDICAL TOURISM - DEFINITION

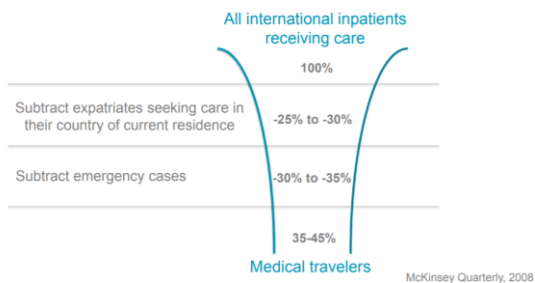
- AKA Health Tourism
- CDC 2016:
 - Traveling to another country to receive medical care
- Originally referred to travel from less developed to more developed countries to receive treatments not available in home country
- No internationally agreed upon definition

MEDICAL TOURISM - REASONS



- Care/procedure is cheaper in another country
- Immigrants to US may prefer to return to home country for care
- Procedure or therapy not available in the US
- Most common procedures:
 - Cosmetic surgery, dentistry, heart surgery, bariatric surgery, transplant

WHO RECEIVES CARE?

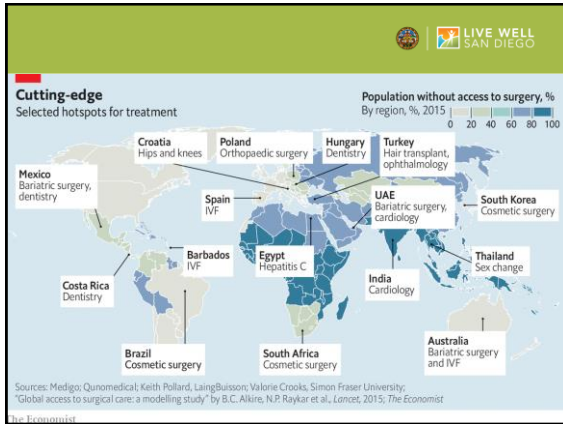


TOP 14 MEDICAL TOURIST DESTINATIONS BY VOLUME OF CARE



1-Thailand	8-Costa Rica
2-Hungary	9-Brazil
3-India	10-Mexico
4-Singapore	11-South Korea
5-Malaysia	12-Colombia
6-Philippines	13-Belgium
7-United States	14-Turkey

Source: Frost & Sullivan





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Imagine yourself in six months - its time to take control and start your weight loss today!

Its possible a "Top-Rated" package for your Tijuana Bariatrics Surgery. Price as of \$3599 is subject to change and includes:

- Great Value in Tijuana
- Trusted Expert Surgeons
- \$500 "Refrainder" Deposit
- Surgical team fees
- Hospital fees (2 nights)
- Private hotel room (1 night luxury)
- Pre-operative exams, lab tests
- All ground transportation
- **Put not the time to get started!**

TRUSTED MEDICAL TOURISM THAT'S CERTIFIED

Ready 4A Change is one of only a handful of medical tourism services certified by both the Medical Travel Quality Alliance and Medical Tourism Association. Our rigorous standards for excellence ensure the highest quality of care before, during, and after your procedure.

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WHY IS THIS IMPORTANT?

IMPACT ON LOCAL FACILITIES

- Repatriation
 - From Tijuana to San Diego
- MDRO
 - Makes treatment difficult
- Other unusual organisms
- Sepsis
- Infection Control Implications
 - MDRO
 - Enhanced precautions
 - Increased costs for control

COMPLICATIONS SEEN

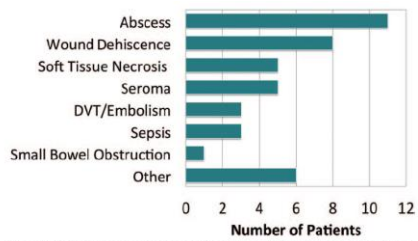


Fig. 3. Categorizing presenting complications. DVT, deep venous thrombosis.

Adabi, K et al, 2017

ORGANISMS

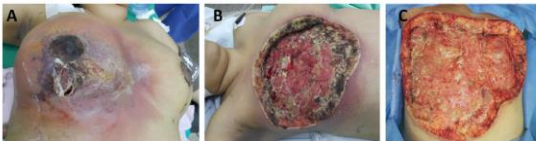


- Carbapenem-resistant Enterobacteriaceae (CRE)
 - *Ps. aeruginosa*
 - *Klebsiella pneumoniae*
- *Acinetobacter baumannii*
- *Proteus* spp
- *Ps. aeruginosa*
- *Citrobacter freundii*
- Mucorales fungus (rare)
- Etc. etc. etc.

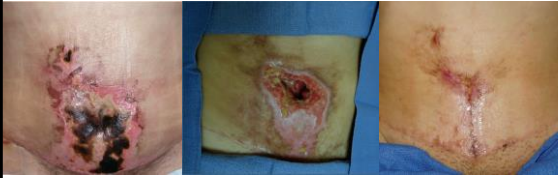
MUCORMYCOSIS



RARE BUT CATASTROPHIC



LIPOSUCTION COMPLICATION



2018/2019 BARIATRIC SURGERY CASES



The San Diego Union-Tribune

CDC: Superbug involved in Tijuana bariatric surgery infections showed ominous mutation



This CDC illustration shows the structure of antibiotic-resistant *Pseudomonas aeruginosa* bacteria. (U.S. Centers for Disease Control and Prevention)

By PAUL SIKESON | JAN. 12, 2019 | 6 AM



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SURGERY IN TIJUANA - CRPA



- Carbapenem-resistant *Pseudomonas aeruginosa*
 - Verona Integron-encoded Metallo- β -lactamase (VIM)
- First case in San Diego
 - LA resident, October 2018
- Initial association with Grand View Hospital
- MLST 111 per Walter Reed
 - Subsequently other MLST identified

TIMELINE



- 1/16/2019 – Surgery in Tijuana, MX
- 1/17/2019 – Re-exploration of surgical site
 - Probably due to leaking anastomosis
 - Developed septic shock, renal failure (dialysis required)
 - Started on broad spectrum antibiotics
 - Marginal respiratory status intermittently on BiPAP
 - Hospital demands \$3K more to continue treatment
- 1/18/2019 – Repatriated to US San Diego County facility
 - Drain in place, on BiPAP
 - Cannot tell ED doc what happened in MX
 - Intubated
 - Admitted 11/19/2019, 3am
 - Admission diagnoses
 - RUL pneumonia peritonitis, dilated loops of small bowel, acute renal failure, shock liver, anemia, sepsis, acute hypoxic respiratory failure

HOSPITAL COURSE



- 1/19/2019 – Admission
- 1/23/2019 – Exploratory Lap clean-out
 - Reopening of initial surgical lap
 - Debridement and repair of Roux-en-Y anastomosis
 - Ventral Hernia Repair with bridging mesh for evisceration
- 1/25/2019 – VHR repair for popping sutures
 - Wound repair
 - Wound Vac
- 2/8/2019 – Tracheostomy placed
- 1/19-2/23/2019 – ICU
 - Intubated
 - Developed rhabdomyolysis
- 2/24/2019 – D/C from ICU
- 2/25/2019 – On Tele floor
 - Waiting for LTAC placement

CULTURE RESULTS



- 1/18/2019 – ED
 - Blood – CRE VIM *Ps. aeruginosa*
- 1/19/2019
 - Blood – CRE VIM *Ps. aeruginosa*
 - Sputum/Bronch wash – *Stenotrophomonas maltophilia*
 - Resistant to Ceftazidime, naturally Carbapenem resistant
- 1/21/2019
 - Wound – CRE VIM *Ps. aeruginosa*
- 1/23/2019
 - Blood – no growth
- 2/4/2019
 - Sputum – *S. maltophilia* and CRE VIM *Ps. aeruginosa*
- 2/13/2019
 - Trach aspirate – CRE VIM *Ps. aeruginosa*



