



Diabetic Limbs At Serious Risk (LASER) Service

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**STAMP Training Event in the Community,
Chorley – 26th April 2016**

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Disclosure

- No disclosures declared.
- No financial relationship with content.



Learning Outcomes

- The Problem !!!!!
- LASER Service Inception, Recruitment and Evolution.
- Review of Practice.
- Future Aspirations.

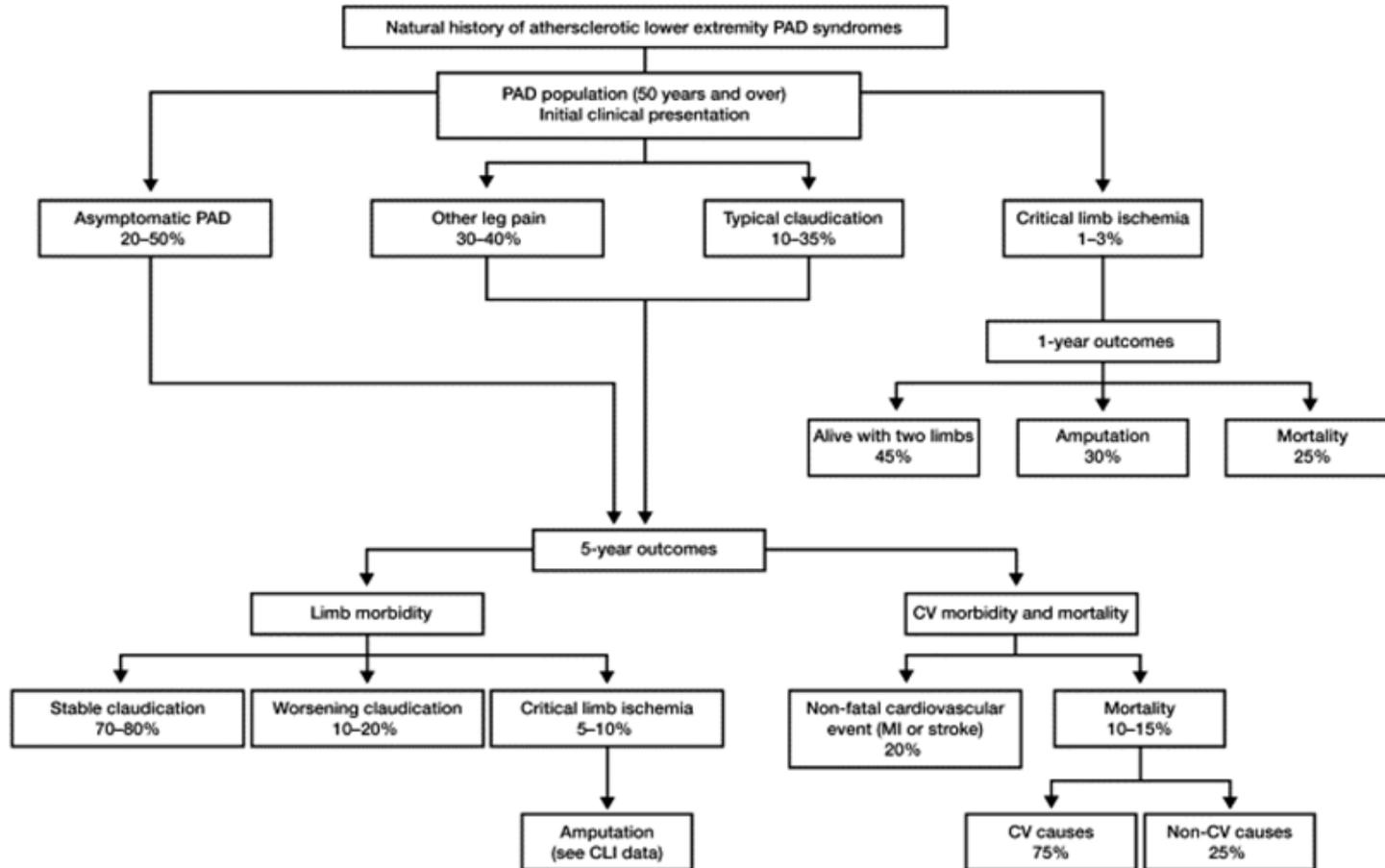


Peripheral Arterial Disease

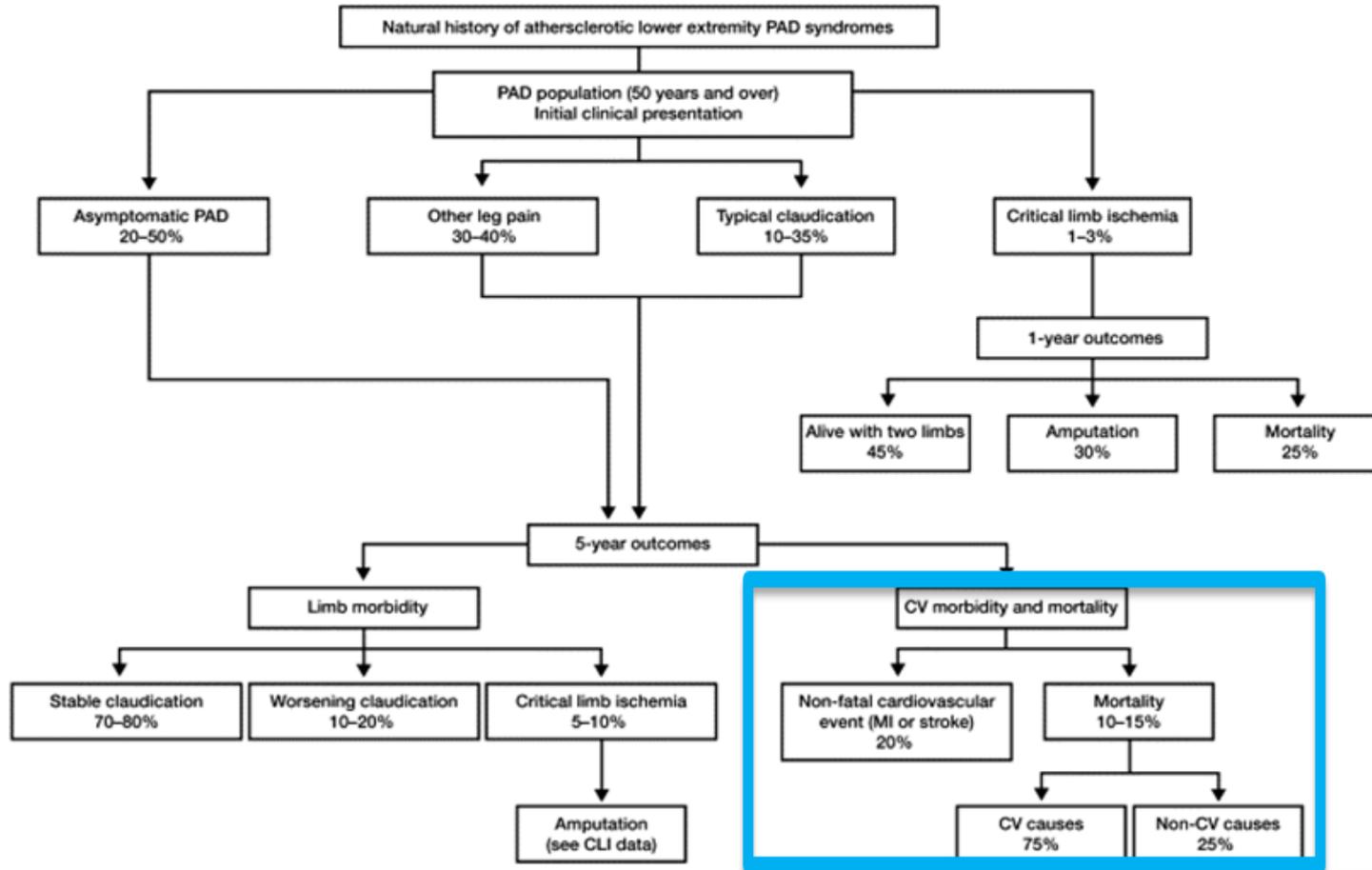
- 20% of people over 55 years of age.
 - Hankey GJ, *JAMA* 2006
- 27 million people affected in Europe and USA.
 - Hankey GJ, *JAMA* 2006
- Only 10-30% of patients will have symptoms.
 - McDermott MM, *Cleve J Clin Med* 2006
- Symptoms deteriorate in 25% of patients.
 - Schmierer FA, *Am J Cardiol* 2001
- 2% to 4% will require amputation.
 - Dormandy J, *Semin Vasc Surg* 1999

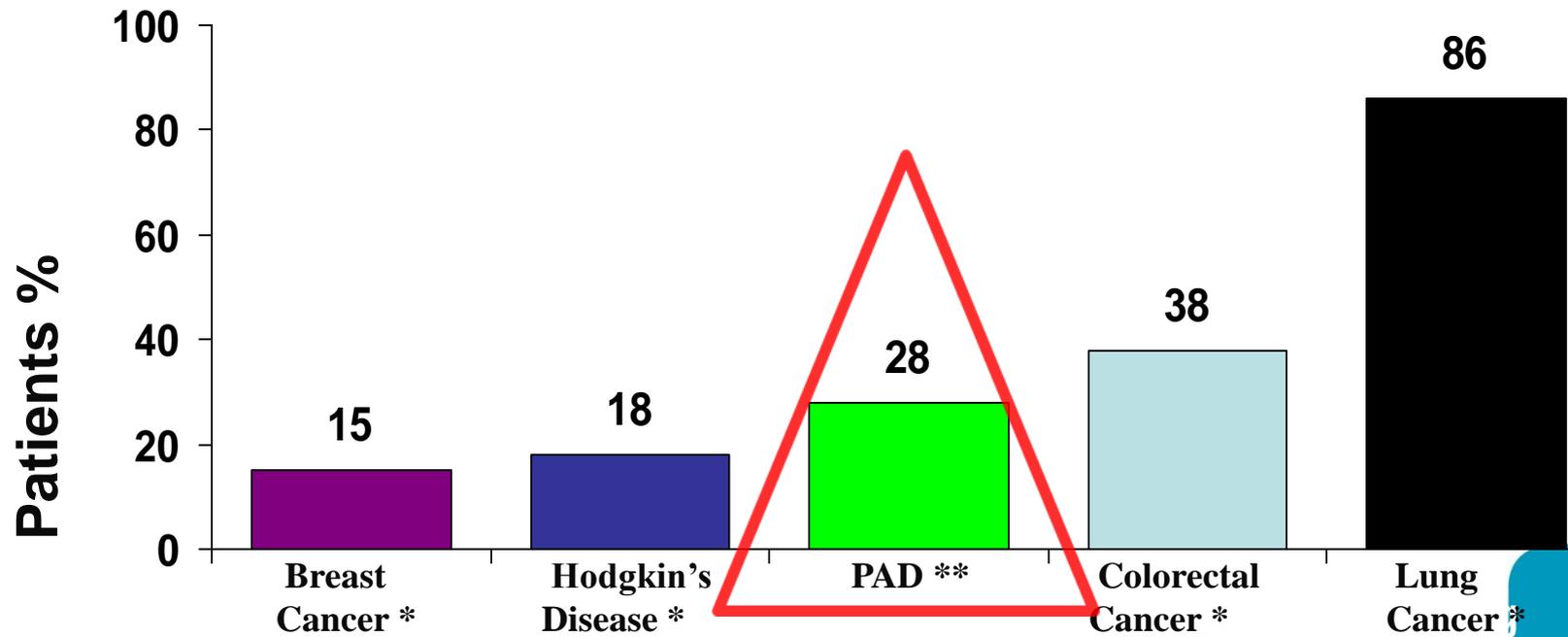


Clinical Outcomes



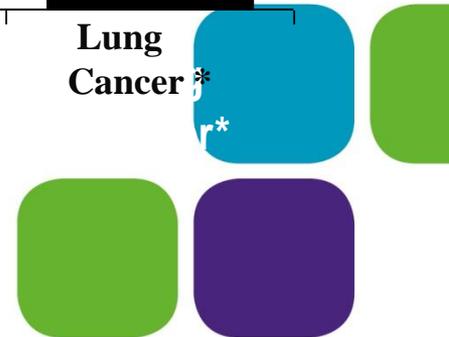
Clinical Outcomes



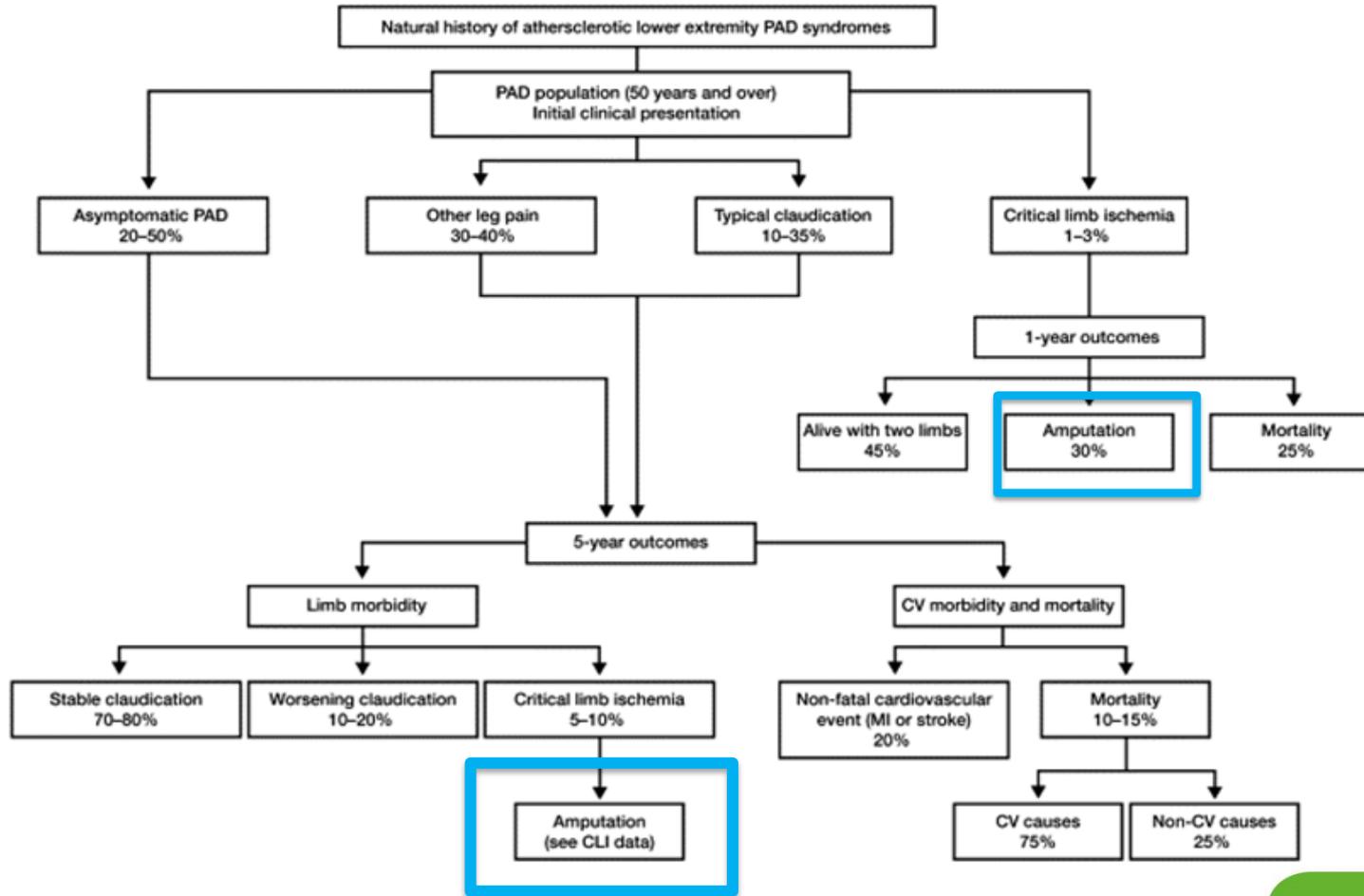


* American Cancer Society. *Cancer Facts and Figures*. 1997.

** Kempczinski, RF, Bernhard VM. IN: Rutherford RB, ed. *Vascular Surgery*. Philadelphia, PA: WB Saunders; 1989: chap 53.



Clinical Outcomes

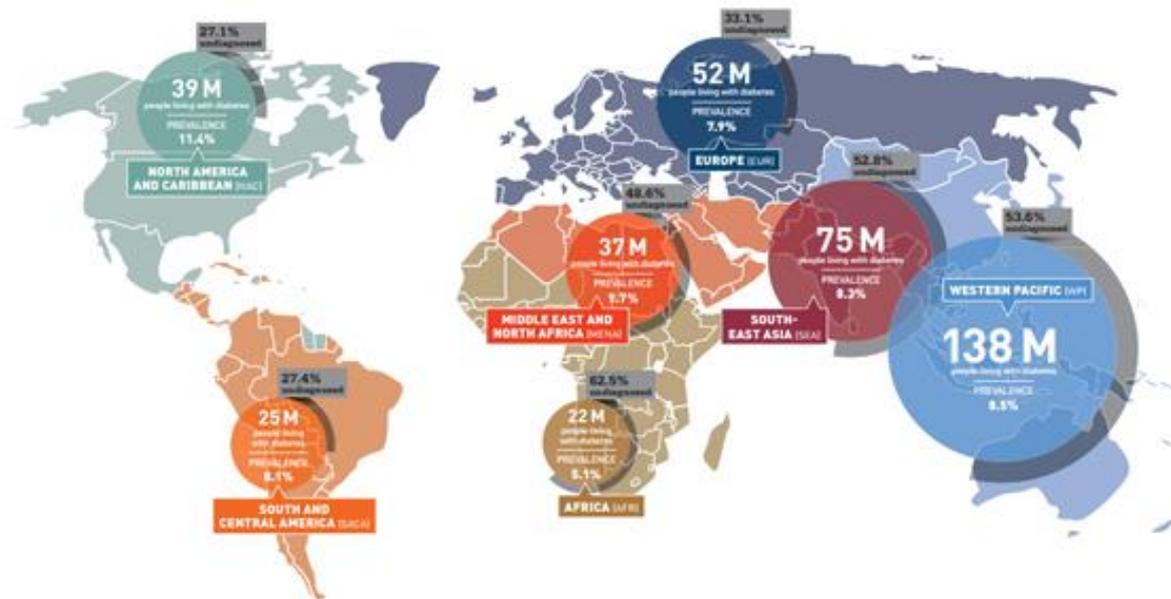


Diabetes

- 15% affected by PAD at 10 years rising to 45% at 20 years.
 - *Kreines Diabetes Care* 1985.
- 20% of patients with PAD have diabetes.
 - *Muribato Circulation* 1997.
- PAD disease distribution different in diabetes.
 - *Strandness Diabetes* 1961.
- 11-times higher rate of major lower limb amputation and a doubling of the five-year mortality.
 - *Elhadd Pract Diabetes Int* 1999.
- Diabetic ulcers heal more slowly leading to increase amputation rates.
 - *Caputo N Engl J Med* 1994.



Epidemiology – Now and Future !!!!



- 11.3% of all people aged 20 years or older.
- 26.9% of all people aged 65 years or older.
- 11.8 % men and 10.8% women aged 20 years or older.



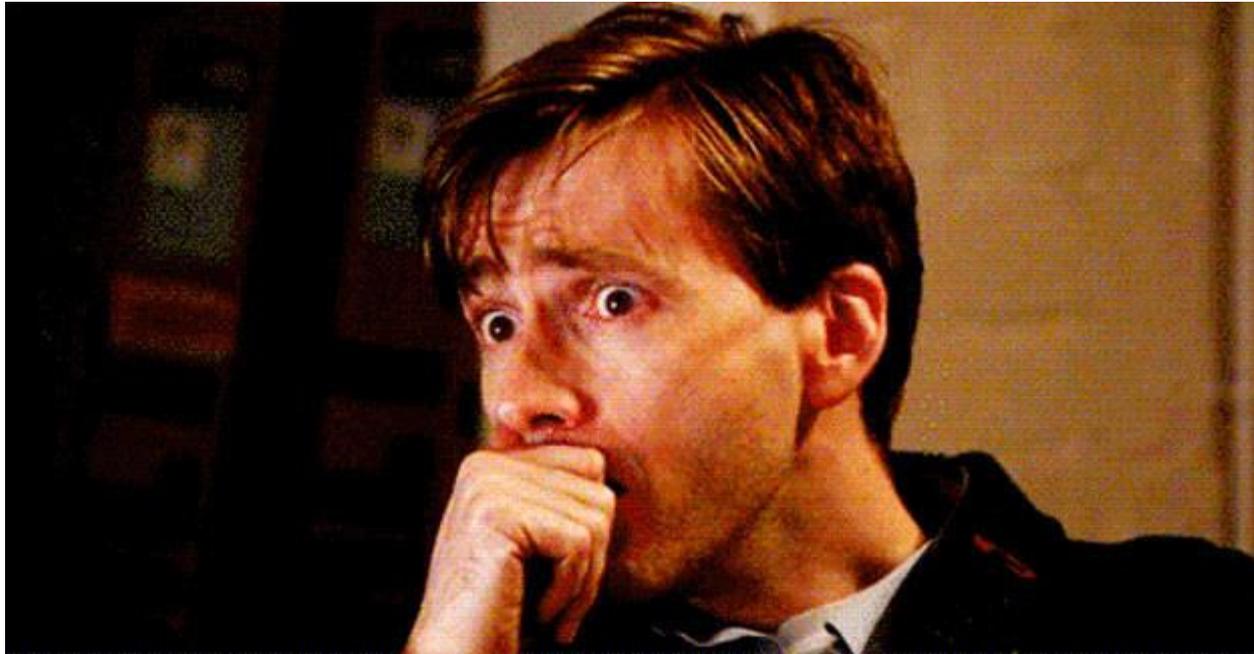
Epidemiology – Now and Future !!!!



Clinical Problem



Clinical Problem



LASER Team Conception

- Multidisciplinary Team Approach.
 - Specialised Vascular Services, NHS England 2014.
- Specialised Care Providers **with Passion.**
- Recognition of Patient Flow.
- Open Communication.
- Ability to influence management quickly.



Our hospital patient flow



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Foot nurses at Royal Blackburn Hospital help diabetics



Gill Lomax and Kath Eccles are part of a specialist team

Two nurses at the Royal Blackburn Hospital are helping hundreds of diabetic people stay on their feet.

Kath Eccles and Gill Lomax have helped make the town the area with the lowest level of diabetes-related limb amputation in the UK.

They developed the Blackburn Boot, a padded covering used to protect ulcerated feet and prevent further damage.

Patients credit them with saving not just their legs but their lives.

Diabetics can have neuropathy, where nerves don't feel pain. If the feet then get damaged, from something as simple as a shoe rubbing,

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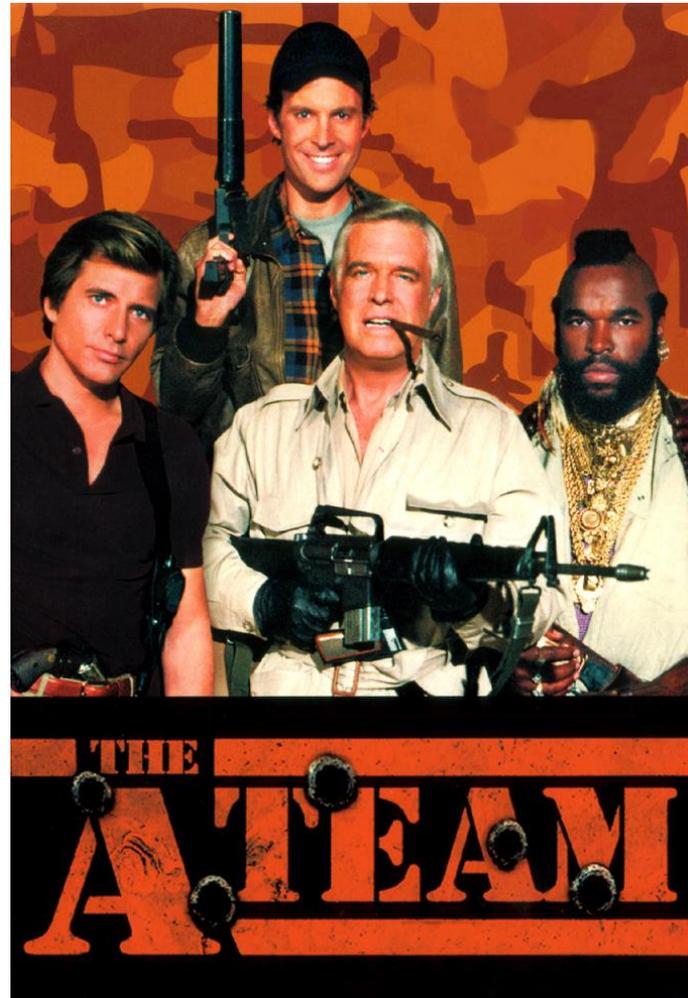
▶ [BBC Health: Diabetes](#)

ELSEWHERE ON THE WEB

▶ [Royal Blackburn Hospital](#)



LASER Team Recruitment



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LASER Team Recruitment

- Senior Podiatry Staff; Gill Lomax and Carl Kenright.



LASER Team Recruitment

- Senior Podiatry Staff; Gill Lomax and Carl Kenright.
- Senior Specialist Nursing Staff; Sister Sue Kenny and Trainee Advanced Nurse Practitioner Nurse Natalie Grady.



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- Senior Podiatry Staff; Gill Lomax and Carl Kenright.
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- Diabetologist with an Interest in Complex Diabetic Foot Management; Dr Malcolm Littlely.



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- Orthopaedic Surgeon with a Diabetic Foot Interest; Mr Jim Barrie.



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- Diabetologist with an Interest in Complex Diabetic Foot Management; Dr Malcolm Littlely.
- Orthopaedic Surgeon with a Diabetic Foot Interest; Mr Jim Barrie.
- Vascular Surgeon with an Interest in Limb Salvage; Mr Mark O'Donnell.



LASER Team Evolution

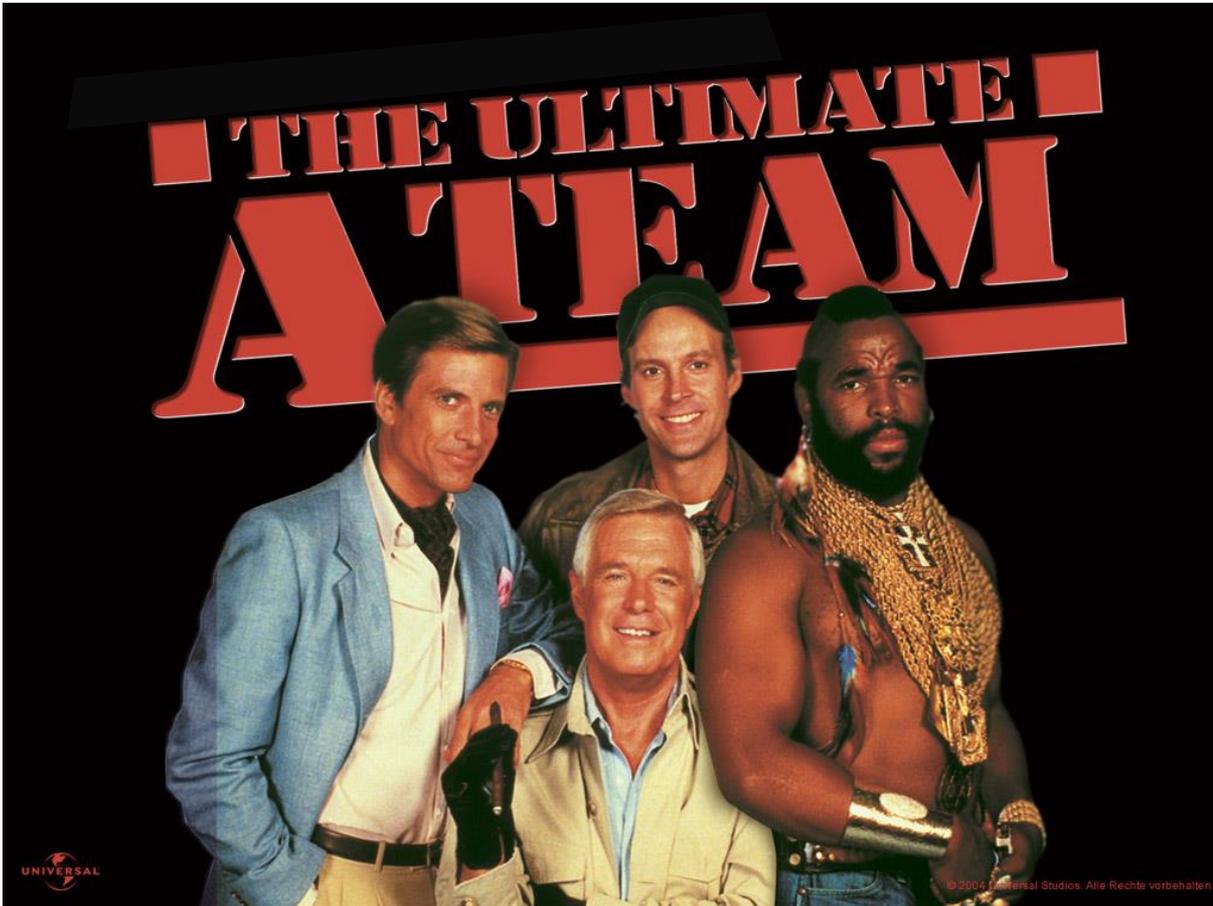
- Microbiology Pharmacist;
 - Ms Jennifer Oakley with Consultant Microbiology support.
- Vascular Surgery;
 - Mr Rob Salaman.
 - Mr Vittorio Perricone.



LASER Team Evolution

- Microbiology Pharmacist;
 - Ms Jennifer Oakley with Consultant Microbiology support.
- Vascular Surgery;
 - Mr Rob Salaman.
 - Mr Vittorio Perricone.
- Training / Education;
 - Orthopaedic Specialist Nurses.
 - Endocrinology Trainees.
 - Medical Trainees.
 - Vascular Surgery Trainees.
 - Nursing staff education.





What do we actually do???

- Patient Identification.
- Prioritisation Logistics.
- Clinical Review.
- Expedited Care Management.
- Expert Review.



What do we actually do???

- **Patient Identification;**
 - Point of contact referral from podiatry / specialist nurse / vascular laboratory.
 - Real-time email correspondence.
 - Ward referral.



What do we actually do???

- Patient Identification.
- **Prioritisation Logistics;**
 - Most at risk patients.
 - **LASER** round ward attendance flow.



What do we actually do???

- Patient Identification.
- Prioritisation Logistics.
- **Clinical Review;**
 - Limb exposure.
 - Diabetic medical review and optimisation of co-morbidities.
 - Orthopaedic clinical and radiological evaluation.
 - Vascular assessment including bedside Doppler.



What do we actually do???

- Patient Identification.
- Prioritisation Logistics.
- Clinical Review.
- **Expedited Care Management;**
 - Bedside dressing optimisation / wound debridement / offloading.
 - Microbiological sampling – tissue and bone.
 - Pharmacological optimisation.
 - Same day vascular laboratory evaluation.
 - Radiological / surgical intervention within 24 hours.
- Expert Review.



What do we actually do???

- Patient Identification.
- Prioritisation Logistics.
- Clinical Review.
- Expedited Care Management.

- **Expert Review;**
 - Email summary of decision processes.
 - Vascular MDT discussion.
 - Diabetic / orthopaedic pathway.
 - Diabetic / vascular pathway.
 - Cross-over frequent.



Review of Practice

- Once weekly LASER round of 1 hour duration.
- 2-4 acute lower limbs.
- 56 patients managed – October 2015 to April 2016.
 - Male=46, Female=10.
 - Mean age 70 (range 28-92) years.
- Arterial assessments within 24 hours.
- Radiological / Surgical Intervention within 48 hours.



Future Aspirations

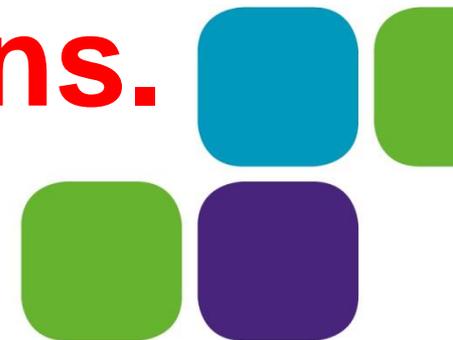
- Business Plan.
- Increased frequency of service.
- Education .
- Out-patient / Community expansion.



Future Aspirations

- Business Plan.
- Increased frequency.
- Education.
- Out-patient / Community expansion.

Fewer Amputations.



Questions ?



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