

# Amputation in Patients with PAD with and without Diabetes: Insights from the EUCLID Trial

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# FINANCIAL DISCLOSURE

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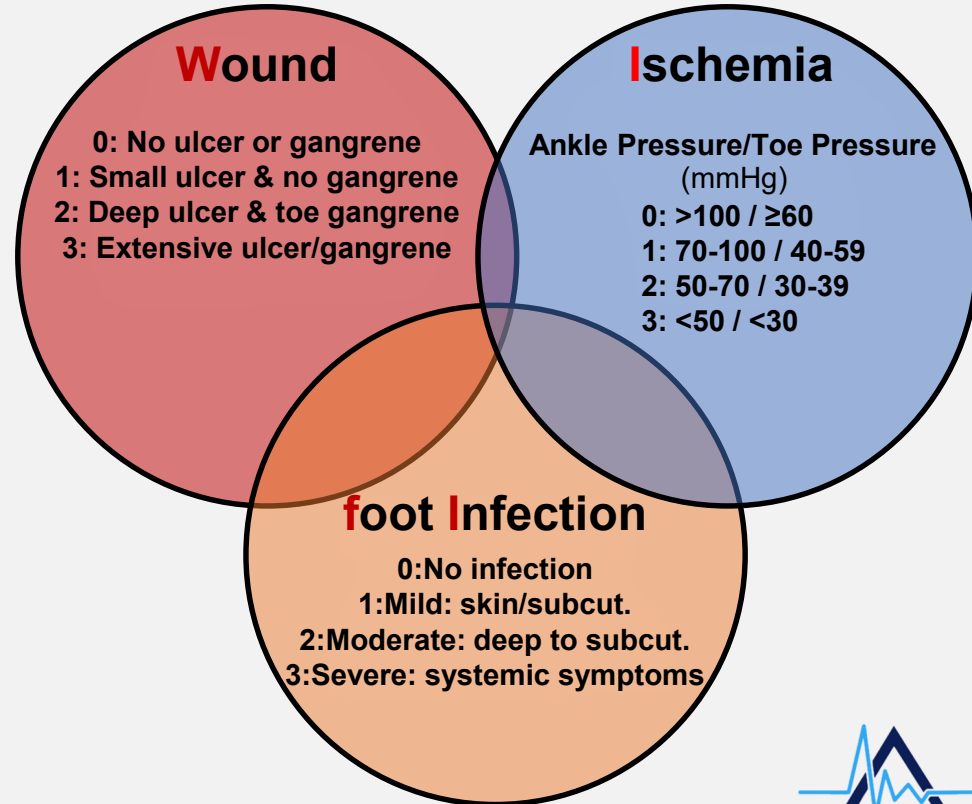
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# BACKGROUND

- **Amputation** is a major complication of peripheral artery disease (PAD)
- **Multifactorial** nature is increasingly recognized, particularly in those **with concomitant diabetes mellitus (DM)**
- Elucidating the drivers of amputation in PAD **with and without DM** may be important in developing strategies for prevention

## Wifi Classification

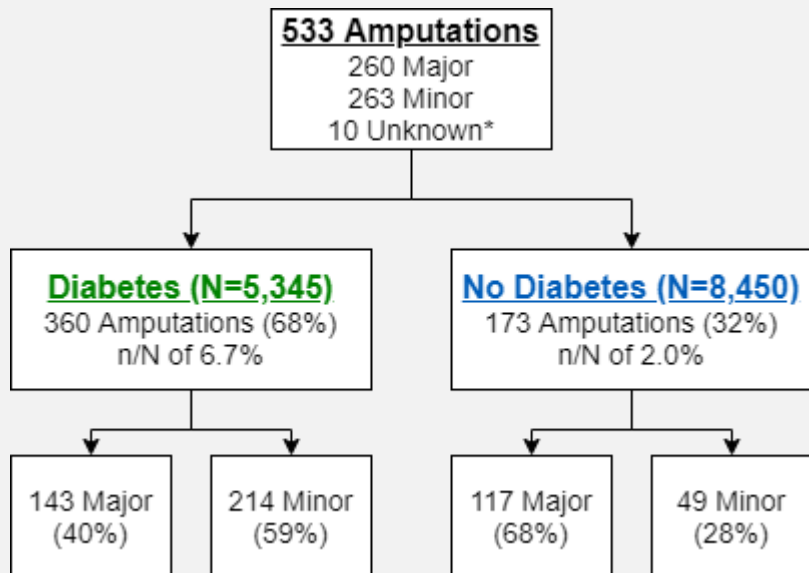


# METHODS

- EUCLID randomized 13,885 patients with PAD. Investigators prospectively reported all amputations
- In this post-hoc analysis, amputations (major – ankle and above, minor – distal to ankle) were **retrospectively adjudicated using safety data** when available to characterize the drivers including **infection**, **ischemia**, or multifactorial
- Etiologies were evaluated by **DM status at baseline**

# COHORT CHARACTERISTICS

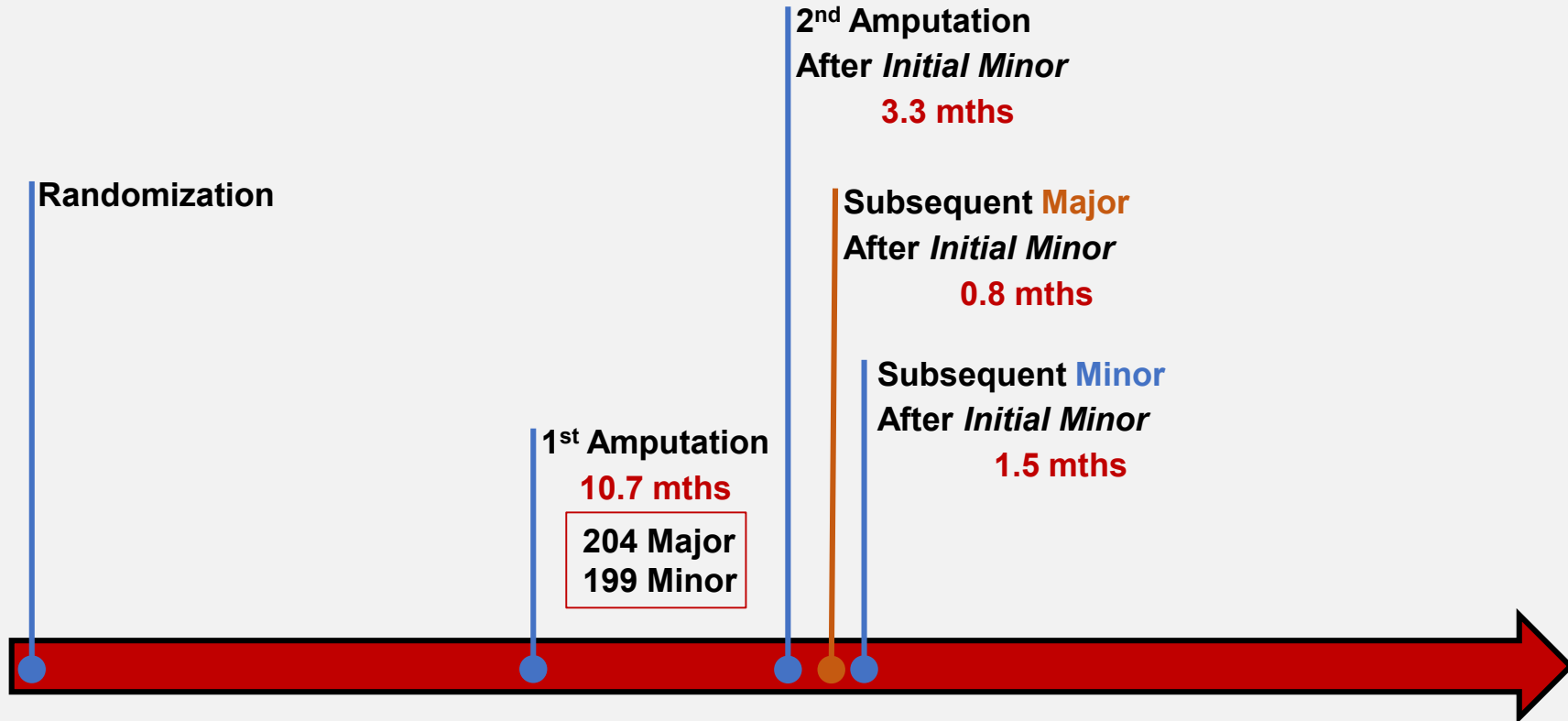
415 patients (3% of total) underwent **533 amputations** over a median of 30 months



\*10 amputations were unknown regarding major or minor, 3 in diabetics and 7 in non-diabetics

Characteristic	At least one amputation	No amputation
N	415	13,470
Age, mean (SD), years	66 (8.7)	67 (8.4)
Female	21%	28%
Current/former smoker	68%	79%
Diabetes Mellitus	67%	38%
Insulin requirement	59%	35%
Oral agent alone	37%	57%
Diet control alone	4%	8%
HbA1c (%), mean (SD)	7.8 (2.1)	6.8 (8.4)
<b>PAD Characteristics</b>		
ABI, mean (SD)	0.64 (0.27)	0.72 (0.21)
Prior revascularization	62%	56%
Prior major amputation	11%	2%
Prior minor amputation	25%	4%
<b>Rutherford Classification</b>		
0. Asymptomatic	13%	19%
1-2. Mild/Mod claudication	39%	54%
3. Severe claudication	27%	23%
4. Rest pain	9%	3%
5. Minor tissue loss	9%	1%
6. Major tissue loss	3%	<1%

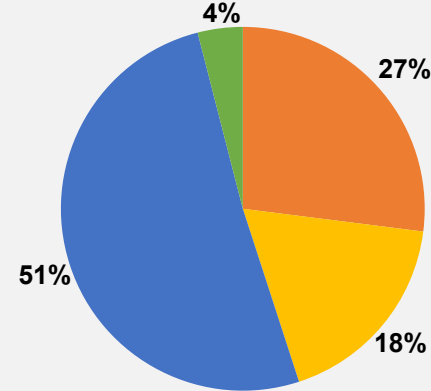
# TIMING OF AMPUTATIONS



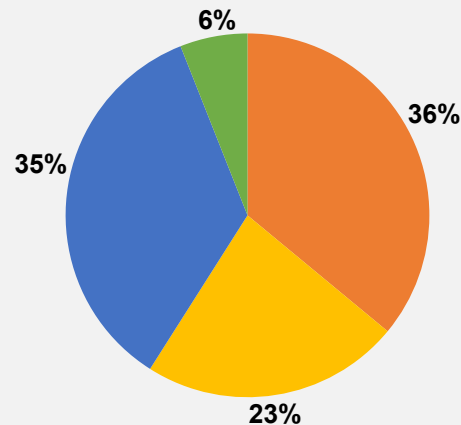
# RESULTS

- 172 out of 533 non-traumatic amputations with sufficient documentation to determine drivers
- **Ischemia** was the primary driver overall (51%) followed by **infection** (27%) and multifactorial (22%)
- Primary driver varied by **DM status**

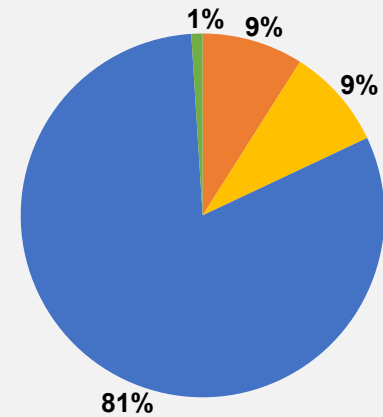
Total Amputations



Diabetes



No Diabetes

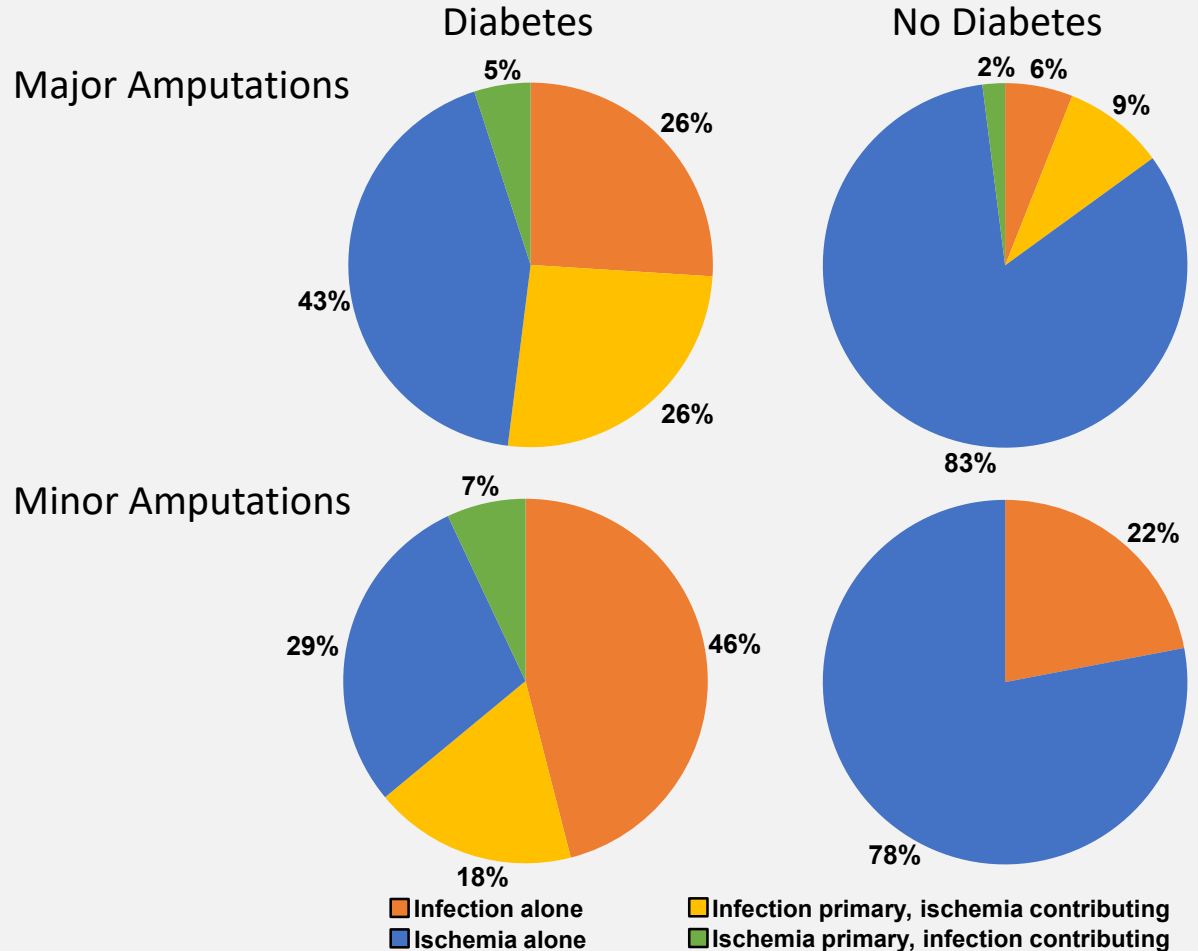


■ Infection alone  
■ Ischemia alone

■ Infection primary, ischemia contributing  
■ Ischemia primary, infection contributing

# RESULTS

- The etiology varied for major and minor with the former driven by **ischemia** (65%) and the latter driven by **infection** (59%)
- **Infection** was the predominant driver in patients with **diabetes** for both major (52%) and minor (64%) amputations





## LIMITATIONS

- Subgroup analysis of RCT
- Critical limb ischemia (CLI) underrepresented in overall clinical trial population
- Incomplete data for adjudication of amputation drivers

## CONCLUSION

- Amputations in PAD appear to have different primary drivers depending on concomitant Diabetes
- **Infection** may have a larger role in patients **with Diabetes** and **ischemia** in patients **without Diabetes**