#### Imperial College London

VEITHSYMPOSIUM

# Global Epidemiology of Chronic Venous Disease:

A systematic review with pooled prevalence analysis

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#### **Disclosures**

#### No disclosures





# Epidemiology

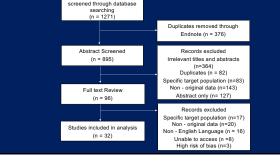
- Prevalence / incidence Geographical distribution
- Risk factors
- Treatment
- Plan
  Access
  Availability
- Workforce
- Cost estimation

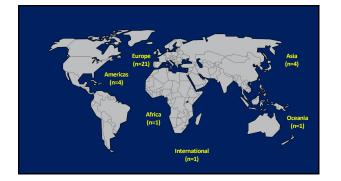




#### Records identified and screened through database searching (n = 1271) **Methods** Duplicates removed through Endnote (n = 376) • Systematic review (1946-present), OVID and EMBASE Random effects meta-analysis Abstract Screened Records excluded (n = 895) Meta XL- Pooled Prevalence Inclusion Exclusion Full text Review (n = 96) Original, primary data • Full- text inaccessible • English Language Specific target populations Adult population







## **Results**

- 32 studies 1966 2015 • 339,505 - 67% female
- Average age 37.6 79.93 years

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• 19 questionnaires 2 self - reported
 17 administered

3 no clinical assessment

6 DUS evaluations

• 4 electronic medical records ICD 10 codes

### **Prevalence and Incidence**

- C0 9%
- C1 26%
- C2 19% • C3 – 8%
- C4 5%
- C5 1% • C6 – 0.42%

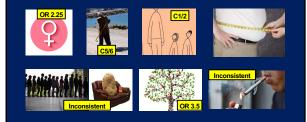
## **Prevalence and Incidence**

#### • C0 – 9% • C1 – 26% • C2 – 19% • C3 – 8% • C4 – 5% • C6 – 0.42%

#### • Europe – 21%

- Asia (Middle and Far East) 17%
- Africa 5.5%
- North America 23%
- South America 22% Pacific Islands – 19%
- Incidence C2 0.22 2.3%
- Incidence C5/6
   0.018 0.122%
   0.3 1.2% older adults

#### **Factors associated with CVD**



# Progression

- 31.9% at mean follow up of 13.4 years
- Average time for venous stasis to progress to VLU 5 y
- Varicose veins with truncal incompetence progressed more rapidly than other veins (22% over 6y)



#### Limitations

- Female gender detection bias European vs other studies – inclusion bias (language)
- C2 only comparison available across geographical regions Questionnaire data with no clinical
- assessment
- Insufficient data on progression in most studies



#### Conclusion

- CVD affects a considerable proportion of the global population
- Estimates are heterogeneous due to differential study design
- Important to characterize the global burden of CVD to optimize service provision and permit workforce planning

