

Persistent low physical activity after stroke and risk of new vascular event or death

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Background

Aim



Physical activity
(PA) reduces
cardio-vascular
risk



Risk of new cardio-
vascular events or
death in persistent
low PA after
stroke



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Design

**Danish cohort of
first ever stroke in
adults with registry-
based, long-term
follow-up**



**Personal civil
registration
number linked to
hospital data and
death registrations**



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Data

**Clinical and PA
data** at inclusion
and 6 months after
stroke



Walking, light to
intense exercise,
household work and
hours at work
converted to score¹



1: PASE: Physical Activity Scale in the Elderly

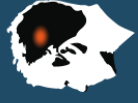


Analysis

Multivariate Cox
proportional
hazards model



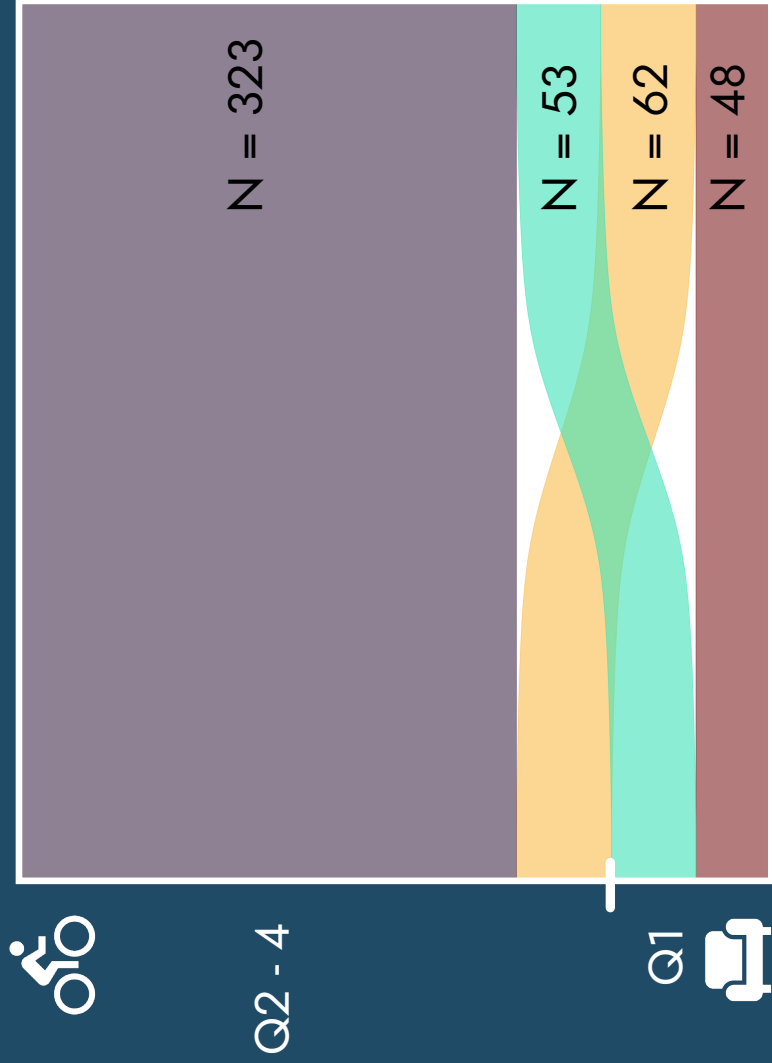
Composite outcome
of **new cardio-
vascular events**
(stroke, TIA, MI) or
death of any cause



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Patients

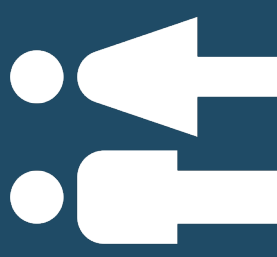
Changes in level of PA



Pre-stroke **PA** assessment
within median **2.0 [1–3]**
days after onset

Best standard care

7.4 % (36) had **mRS**
>2 at 6 months



Inclusion
(N=522)

6 months
(N=488)



Up to 8 years



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Group characteristics



Low PA were **older**,
more **female**, lived
alone, more **smokers**,
hypertension, more
disabled



No difference in
stroke severity or
study allocation

Mean 6.27 (2.1) years
follow-up

Inclusion
(N=522)

6 months
(N=488)

Patient years (PY)	Events	Events pr 100 PY
1581	79	5.00
286	20	7.00
318	20	6.29
177	29	16.4
2362	148	6.27

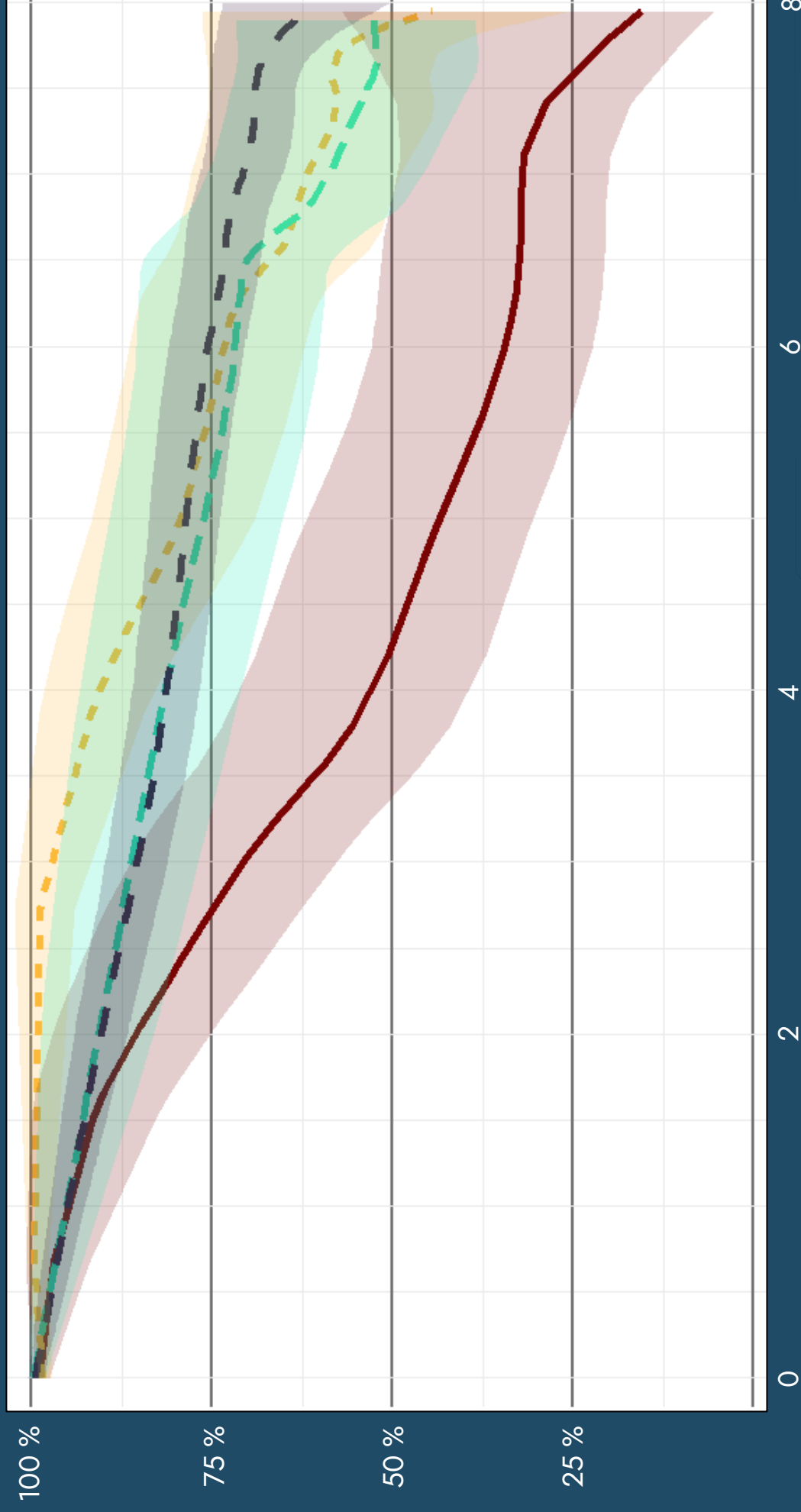


Up to 8 years



– UNPUBLISHED DATA – DO NOT COPY OR DISTRIBUTE –

Smoothed survival plot



Years of follow-up

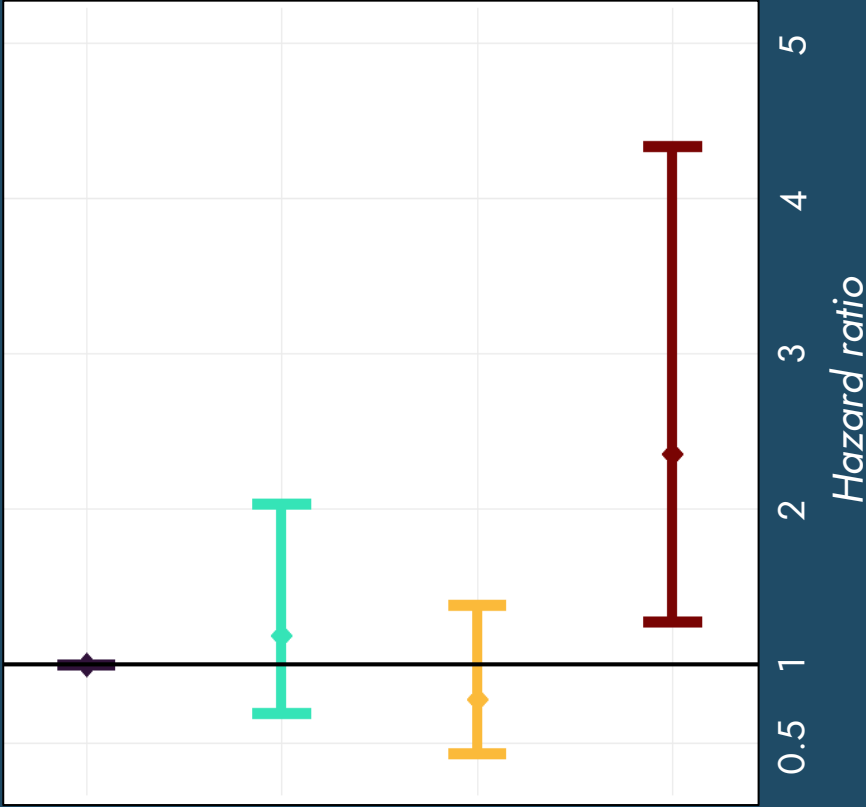
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Cox Proportional Hazards

Multivariate regression model

Hazard Ratio	Confidence Interval
REF	REF
1.19	[0.69;2.04]
0.78	[0.44;1.39]
2.36	[1.28;4.34]



Included covariates are age, sex, cohabitation, smoking, alcohol, stroke severity, acute treatment, diabetes, hypertension, AFIB, previous TIA, previous MI, mRS at inclusion and at 6 months.



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Conclusion

Patients with
persistent low level
of physical activity
have an **increased**
hazards ratio



Patients **increasing**
physical activity
level have **lower**
hazards ratio





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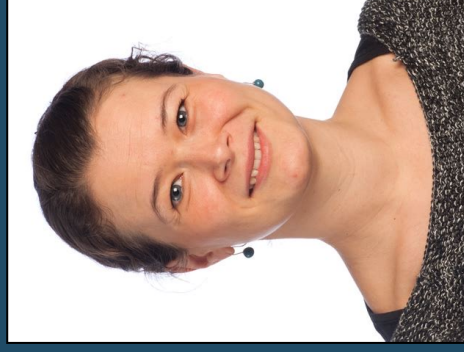
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THANK YOU



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