NEWSLETTERS FROM ASPREE PRINCIPAL INVESTIGATORS

This brief update aims to keep researchers informed of developments with the ASPREE project. It is being sent to key ASPREE committee members, collaborators and end-point adjudicators. For further information about matters in this newsletter please feel free to contact a study PI.

- Current newsletter
- Past newsletters (below)

ASPREE Update #8 (24 Aug. 2021)

Dear Colleagues,

ASPREE finds blood pressure variability linked to more rapid cognitive decline in older adults

Impact greatest in men receiving antihypertensive therapies
Adds to previous research showing similar findings in mid-life adults
Ernst ME et al. J Am Heart Ass 2021. DOI: 10.1161/JAHA.120.019613

Observational data from ASPREE shows no link between statin therapy and cognitive decline

Similar results from lipophilic and hydrophilic statins

More definitive results will come from large-scale statin trials currently progressing in older populations

Zhou Z et al. J Am Coll Cardiol 2021; 77(25):3145-56 DOI: 10.1016/j.jacc.2021.04.075

ASPREE finds that a polygenic risk score (PRS) effectively predicts risk of ischaemic stroke in older individuals

Strongest Individual predictors were age (AUC=59%), systolic BP (AUC=58%) & PRS (AUC=58%)

But PRS adds minimally to the risk score derived from composite of conventional risk factors

Neumann J T et al: Stroke 2021;52. DOI: 10.1161/STROKEAHA.120.033670

Distributed on behalf of the ASPREE PIs

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ASPREE Update #7 (30 March 2021)

Dear Colleagues,

ASPREE finds that low-dose aspirin does not delay onset of new disability Walking, bathing, toileting, eating, dressing and transferring assessed in older people

Complements previous finding that low-dose aspirin does not delay the onset of cognitive disability

Woods RL et al. J Gerontol Series A online 26 Dec 2020

ASPREE reports increased depression scores in aspirin-treated participants with pre-existing depressive symptoms

Reduced mental health 'quality of life' scores also accompanied aspirin use No previous studies considered the effect of aspirin on mood in elderly people Berk et al. Mol Psychiatry online 27 Jan 2021

ASPREE finds moderate or severe back pain is common in overweight and obese elderly

11% of older males and 18% of older females reported moderate or severe low back pain on entry to the study.

Back pain interfered with sleep and mobility, with over 50% taking pain-relieving medication regularly

Gilmartin-Thomas et al. Arch Gerontol & Geriatrics online 13 Aug 2020

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ASPREE Newsletter #6 (10 Dec. 2020)

Dear Colleagues,

ASPREE finds high blood pressure variability an added risk for cardiovascular disease events in the elderly

High BP variability adds to the risk from high blood pressure alone.

Also increased the risk for ischaemic stroke, heart failure hospitalisation & death. Ernst et al. Hypertension 2020;76:1945-52

ASPREE finds prior low-dose aspirin does not reduce the risk of death from sepsis

Hospitalisation, ICU admission for sepsis and deaths were not reduced amongst those taking aspirin.

Contrasts with previous smaller studies which had suggested a benefit <u>Eisen et al Lancet Respiratory Medicine online 17 Sep 2020</u>

ASPREE finds low-dose aspirin does not improve disability-free survival in chronic kidney disease (CKD)

CKD further increased risk of aspirin-induced bleeding.

CKD almost doubled the risk of dementia, persistent physical disability, major cardiovascular events and death.

Wolfe et al Kidney International online 10 Sep 2020

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ASPREE Newsletter #5 (16 Sept. 2020)

Dear Colleagues,

ASPREE finds low-dose aspirin may speed cancer progression in the elderly

Aspirin treated group developed more late stage cancers & higher risk of cancer death

Another reason for caution with aspirin use in this age group

Ref: McNeil et al J Natl Cancer Inst 2020 and The NCI blog about the article

ASPREE finds low-dose aspirin increases both upper and lower gastrointestinal haemorrhage

162 GIT bleeding events in those taking aspirin daily and 102 in the placebo group (no aspirin)

Raised creatinine levels recognised as an additional risk factor in the elderly

Ref: Mahady et al Gut 2020

ASPREE finds high risk genes common in healthy elderly individuals

1 in 75 participants have genes linked to cancer, sudden death or other serious diseases

Reasons for the 'resilience' of these subjects is being investigated

Ref: Lazace et al Genet Med. 2020

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ASPREE Newsletter #4 (21 Aug. 2020)

Dear Colleagues,

NIA funds ASPREE microbiome sub-study of the gut microbiome in the elderly What personal, lifestyle factors, and environmental factors influence the gut microbiome

Involves prospective collection of stool specimens from ASPREE participants linked with clinical data

ASPREE data suggests that statin therapy does not prolong disability-free survival

31% (n=5629) of ASPREE participants reported statin use at enrolment Fewer heart attacks and strokes (4.6% vs. 3.3%) but no difference in cancer, dementia or mortality

Ref: Zhou et al JACC 2020; 76: 17-27

ASPREE most likely to 'change and improve' medical care

Canadian Physicians list ASPREE twice in top 20 "Patient Oriented Evidence that Matters"

Cited the 'disability free survival' and the 'cardiovascular disease & bleeding papers' Ref: <u>Ebell Am Fam Physician 101(10):608-17</u>

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ASPREE Newsletter #3 (19 June 2020)

Dear Colleagues,

ASPREE reveals: daily low dose aspirin does not reduce depression in the elderly

<u>ASPREE-D (depression) sub-study</u> published in JAMA Psychiatry Rates of depression, the severity of depressive symptoms, quality of life and use of anti-depressants similar in the aspirin and placebo treatment arms.

ASPREE PI, Dr Andy Chan, leads US population-based COVID symptom study involving cohorts including ASPREE

<u>Smart phone app</u> captures risk factors, daily symptoms and health outcomes Real-time epidemiological data in the US and UK will inform investigations into <u>COVID</u> susceptibility and <u>long-term impact</u>

ASPREE Project appoints new senior database manager

Dr Michelle Wilson will supervise the Monash University team that manages and

makes available ASPREE data

Dr Wilson has a background in biomedical science and data management in longitudinal research.

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ASPREE Newsletter #2 (18 May 2020)

Dear Colleagues,

Low dose aspirin has no benefit for slowing cognitive ageing

No reduction in the risk of Alzheimer's disease, mild cognitive impairment or cognitive decline during the intervention period

With no evidence of aspirin's benefit on cognitive domains including memory, psychomotor speed, language

Ref: Ryan J et al. Neurology 2020

ASPREE findings do not support weight-adjusted aspirin dosing in the elderly

An earlier, widely publicised meta analysis reported that low dose aspirin was effective at reducing CVD only in those with low-average body weight ASPREE found that neither body weight nor BMI, waist circumference or lean body mass moderated aspirin's (lack of) effect on CVD.

Ref: Woods RL et al. Circulation 2020

ASPREE data used to advance genomic studies of the elderly

Collaborative study with the Garvan Institute in Sydney to create a Medical Genome Reference Bank

Provides a public resource of whole genome sequences and phenotype data from healthy elderly individuals.

Ref: Pinese M, Lacaze et al. Nature Communications 2020

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ASPREE Newsletter #1 (3 April 2020)

Dear Colleagues,

ASPREE-XT study activity continues amid COVID-19 crisis

Phone calls replace annual face-to-face study visits with participants in Australia and

the US, collection of electronic endpoint data continues
ASPREE-XT field staff are conducting study visits over the phone until in-person visits can safely resume. Participants are advised that physical measures, such as BP, will be collected at later in-person visits.

Version 3 of database uploaded on 16th December 2019

Most changes from V2 are minor

The ASPREE database contains over many millions of data-points, and is available to investigators via the ASPREE safe haven. The ASPREE Longitudinal Data Analysis Handbook outlines definitions and names of all variables.

ASPREE joins NIA Alzheimer's Disease Sequencing Project

ASPREE to become part of the world's largest dementia genetics study Existing whole genome sequencing data from 3000 ASPREE participants contributed to the international consortium to help generate new data in the quest to find new dementia genes.

Best wishes

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