

Thank you for your continued support, without your commitment to the study and the dedication of our team we would not have been able to carry out this hugely important trial.

RESULTS PUBLISHED IN JAMA (Journal of the American Medical Association) **March 2018** for CAP (Cluster randomized trial of PSA testing for prostate cancer) median 10-year results. The PSA test diagnosed more prostate cancers but didn't reduce the number of men dying from prostate cancer. You can read more here <https://jamanetwork.com/journals/jama/fullarticle/2673968>

	Invited to PSA screening (189,386 men)	Not invited to PSA screening (219,439 men)
Prostate cancer detected	8,054 men (43 in 1,000)	7,853 men (36 in 1,000)
Prostate cancer deaths	549 men (30 in 10,000)	647 men (31 in 10,000)

There was one less death for 10,000 men screened, therefore the number of men required to be screened to save one life was 10,000

These results have already been used to inform screening policy internationally <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/prostate-cancer-screening1> and had a major influence on NHS guidelines, including endorsement from the Royal College of General Practitioners <https://www.rcgp.org.uk/about-us/news/2018/march/psa-tests-should-not-be-offered-routinely-to-men-without-symptoms-of-prostate-cancer-says-college.aspx>

"It shows that PSA testing is not sensitive enough to either detect the subtle variations between prostate cancers or exclude clinically insignificant cancers."
Professor Helen Stokes-Lampard, Chair of the Royal College of GPs

Prostate cancer screening remains controversial because of concerns about over-diagnosis and over-treatment, and uncertain mortality and quality-of-life benefits. The UK National Screening Committee (UKNSC) are currently reviewing their recommendation considering these results.

Videos explaining the results further are here <https://www.youtube.com/channel/UCc0AUjDL7q89p3IGyIigB0g/featured>

A **CLAHRC Bite** (Brokering Innovation Through Evidence) was produced to disseminate these results to GPs and other healthcare professionals. <https://www.clahrcprojects.co.uk/resources/bites/study-investigating-single-blood-test-screen-prostate-cancer-cap-trial>

CANCER RESEARCH UK AWARD FOR CAP EXTENDS FOLLOW UP UNTIL 2021

Extending follow-up for a median of 15 years will provide up-to-date empirical data to populate lifetime models of screening cost-effectiveness and inform lead time based models of lifetime risks of over-diagnosis and over-treatment where there is little international consensus.

The linked ProtecT trial published in November 2016 reporting 10 Year Outcomes after Monitoring, Surgery, or Radiotherapy for Localised Prostate Cancer, showed no difference in mortality. Hamdy et al NEJM (doi: 10.1056/NEJMoa1606220) ProtecT follow-up has also been extended for a median of 15 years, reached in November 2020.

The CAP trial won the **ONS Research Excellence Award 2018**, recognising the outstanding use of ONS Research Data to deliver a public benefit.

Trial results were included in a **2018 meta-analysis** published in British Medical Journal doi: <https://doi.org/10.1136/bmj.k3519>



RECENT PUBLICATIONS

- Martin, Donovan, Turner et al (2018) Effect of low intensity PSA-based screening Intervention on Prostate Cancer Mortality: The CAP randomized clinical trial. *JAMA* 319(9):883-895. [DOI: 10.1001/jama.2018.0154].
- Donovan, Young, Walsh, et al (2018) A prospective cohort and extended comprehensive-cohort design provided insights about the generalizability of a pragmatic trial. *Journal of Clinical Epidemiology*. 96: 35-46. <https://doi.org/10.1016/j.jclinepi.2017.12.019>
- Merriel, Turner, Walsh, et al (2017) Cross-sectional study evaluating data quality of the National Cancer Registration and Analysis Service (NCRAS) prostate cancer registry data. *BMJ Open* 7 (11) e015994 doi: 10.1136/bmjopen-2017-015994
- Hamdy, Donovan, Lane, et al. (2016) 10-Year Outcomes after Monitoring, Surgery, or Radiotherapy for Localized Prostate Cancer. *NEJM*; doi:10.1056/NEJMoa1606220.
- Donovan, Hamdy, Lane, et al. (2016) Patient-Reported Outcomes after Monitoring, Surgery, or Radiotherapy for Prostate Cancer. *NEJM* 2016;doi:10.1056/NEJMoa1606221
- Turner et al. Contemporary accuracy of death certificates for coding prostate cancer as a cause of death: Is reliance on death certification good enough? A comparison with blinded review by an independent cause of death evaluation committee. *Br J Cancer* 2016;115:90-4. doi: 10.1038/bjc.2016.162
- Walsh et al. Characteristics of men responding to an invitation to undergo testing for prostate cancer as part of a randomised trial. *Trials* 2016; 17, 497. doi:10.1186/s13063-016-1624-6
- Thorn et al. Validating the use of hospital episode statistics data and comparison of costing methodologies for economic evaluation: An end-of-life case study from the cluster randomised triAl of PSA testing for prostate cancer (CAP). *BMJ Open* 2016; 6:4, e011063. doi:10.1136/bmjopen-2016-011063
- Thorn et al. Validation of the Hospital Episode Statistics Outpatient Dataset in England. *PharmacoEconomics* 2015. doi:10.1007/s40273-015-0326-3
- Williams et al. Standardisation of information submitted to an endpoint committee for cause of death assignment in a cancer screening trial – lessons learnt from CAP (Cluster randomised triAl of PSA testing for Prostate cancer). *BMC Medical Research Methodology* 2015; 15:6. doi: 10.1186/1471-2288-15-6



Research team in Bristol 2018



International Trial Steering Committee March 2017