

Section A The fields in this section are mandatory.		
Institution: 1007857 Bangor University		
Unit of Assessment: UoA3		
Title of case study: ADENOMA and BADENOMA research collaboration		
Period when the underpinning research was undertaken: 2014 to present day		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Zoë Hoare	Principal Statistician	From October 2009
Period when the claimed impact occurred:		
2018 onwards		
Is this case study continued from a case study submitted in 2014? N		
Section B		
1. Summary of the impact (indicative maximum 100 words)		
<p>Low adenoma detection rates have been linked to increased postcolonoscopy colorectal cancer rates and reduced cancer survival. Improving the detection rates by using devices to enhance mucosal visualisation such as Endocuff Vision. N.WORTH teamed up with South Tyneside NHS Foundation Trust and Newcastle university to deliver two of the worlds largest endoscopy trials led by Professor Colin Rees. The research collaboration has resulted in three awards. The research resulted in the award of an Innovation and Technology Payment (ITP) for 2018/19 from NHS England. Endocuff Vision is one of only four innovations funded by NHS England for 2018/19 following a competitive process. Beyond that the results of the trials are being fed into a review of NICE guidance</p>		
2. Underpinning research (indicative maximum 500 words) See paragraphs Error! Reference source not found. to Error! Reference source not found.		
<p>Grant capture related to the collaborations:- ADENOMA: Accuracy of Detection using ENdocuff Optimisation of Mucosal Abnormalities Industry funded, Co-applicant ARC Medical Total grant value £130K Oct 2014 – Oct 2016</p> <p>B-ADENOMA: BowelScope: Accuracy of Detection using ENdocuff Optimisation of Mucosal Abnormalities, Co-applicant, ARC Medical Total grant value £98K Jan 2017 – June 2018</p>		
3. References to the research (indicative maximum of six references)		
<ol style="list-style-type: none"> 1. B-ADENOMA study paper under final development 2. The B-ADENOMA Study: Bowelscope - Accuracy of Detection using Endocuff Optimisation of Mucosal Abnormalities: Study Protocol for randomised controlled trial. Ngu WS, Walls M, Bhandari P, et al. Endosc Int Open. 2018 Jul;6(7):E872-E877. doi: 10.1055/a-0591-9308. Epub 2018 Jul 4. 		

3. Improved Adenoma Detection with Endocuff Vision: The ADENOMA Randomised Controlled Trial. Rees, C., Ngu, L., Clifford, G., et al. 23 Jan 2018 In : GUT . 66, p. 1-9
4. The ADENOMA Study. Accuracy of Detection using Endocuff Vision™ Optimization of Mucosal Abnormalities: study protocol for randomized controlled trial. R. Bevan, W. Ngu, B. Saunders, et al.. Endosc Int Open 2016; 04(02): E205-E212, DOI: 10.1055/s-0041-107900

4. Details of the impact (indicative maximum 750 words).

Bowel cancer is the fourth most common cancer in England with 34,000 people diagnosed each year and remains the second largest cause of cancer related mortality in the UK. A team led by Professor Colin Rees (South Tyneside NHS Foundation Trust) delivered two of the world's largest endoscopy trials (ADENOMA and B-ADENOMA) to study the effect of Endocuff Vision. A device, which has been designed to give an optimal view of the colon. NWOORTH collaborated on both studies from inception to completion and provided input into the design, methodology, databases, data management, quality assurance, statistics and analysis.

ADENOMA was a multicentre randomised controlled trial with 1772 participants that compared the adenoma detection rate between Endocuff vision assisted colonoscopy and standard colonoscopy. The results demonstrated that the Endocuff vision increased adenoma detection rates in bowel cancer screening patients and should be used in colonoscopic detection.

B-ADENOMA was a multicentre randomised controlled trial with 3222 participants that studied the effectiveness of the Endocuff Vision compared to standard care in improving the detection of colorectal adenomas in patients attending for flexible sigmoidoscopy screening. Analysis has been completed and discussion summaries are currently being written.

The collaborative research team secured three awards throughout the duration of the collaboration. Early in 2018 the team won Medilink Northern Powerhouse Healthcare Business Awards, Partnership with the NHS: Acute Care Award for the Endocuff Vision collaboration. In the Bright Ideas in Health Awards 2018, organised by The Academic Health Science Network for the North East and North Cumbria, the team won *the Research Impact: Improving Patient Care* category for leading collaborations to deliver practice-changing research. The team also winners in The British Healthcare Trades Awards 2018 for *Best Innovation Developed in Collaboration with the NHS*.

The collaboration facilitated research delivery at an unprecedented pace and scale. As a direct result, NHS England announced in 2018 that the Endocuff Vision - a single use, disposable device, developed by ARC Medical Design Limited would be fast tracked for use in the NHS, potentially saving lives. Demonstrated with the award of the Innovations and Technology Payment for 2018/2019 from NHS England. The aim of the ITP is to help deliver the conditions and cultural change necessary for proven innovations to be adopted faster and more systematically through the NHS, and to deliver examples into practice for demonstrable patient and population benefit. Endocuff Vision was one of only four innovations funded by NHS

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England for 2018/19 following a competitive process. It is estimated that use of this device will avoid six cases of bowel cancer for every 1000 people screened

NICE guidance is currently under review for Endocuff vision for assisting visualisation during colonoscopy with an expected publication date of guidance on 7th June 2019, where in the associated documentation ADENOMA is noted as a pivotal study.

5. Sources to corroborate the impact (indicative maximum of ten references)

1. <https://www.england.nhs.uk/ourwork/innovation/innovation-and-technology-payment-201819/>
2. <https://www.nice.org.uk/guidance/indevelopment/gid-mt509>
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- 10.

Where the sources are individuals who could be contacted or have provided factual statements to the HEI, the submitted case study should state only the organisation (and, if appropriate, the position) of the individuals concerned, and which claim(s) they can corroborate. Their personal details (name, position, contact details) must be entered separately on the REF submission system and not on REF3. Details of a maximum of five individuals may be entered for each case study; these data will not be published as part of the submission.

Source:	Name	Position	Contact details
1			
2			
3			
4			
5			

Additional contextual data

The fields in this section are mandatory, where applicable. The information will be used in post assessment evaluations and will **not** be routinely provided to panels.

Name(s) of funder(s): ARC Medical design

Name(s) of funding programme(s):

Grant number(s):

Amount of grant (in GBP):

ORCID for each named researcher:
Name(s) of formal partner(s):
<ul style="list-style-type: none">• Wee Sing Ngu,• Roisin Bevan,• Zacharias P Tsiamoulos,• Paul Bassett,• Zoë Hoare,• Matthew D Rutter,• Gayle Clifford,• Nicola Totton,• Thomas J Lee,• Arvind Ramadas,• John G Silcock,• John Painter,• Laura J Neilson,• Brian P Saunders,• Colin J Rees, <p>Martin Walls Pradeep Bhandari Linda Sharp Clive Stokes Lexi Bastable Andrew Brand</p>
Country/countries where the impact occurred**: England

** Where the impact occurred specifically within one country that is part of the UK (for example, Wales), this country rather than 'UK' should be specified in the country/countries field.

Commented [ZH1]: Would this be all the researchers involved in the two trials? Does it need to include the industry partner too?

IMPACT QUESTIONS

1. WHAT is the change, effect or benefit arising from your research and WHO is it affecting?
2. WHY does this change or effect matter?
3. WHERE are you having an impact and why in those specific locations?
4. HOW has this change or effect come about (escribe the journey)?
5. What % of the target group(s) has/have been affected?
6. Is the impact based on a body of research (to Q7)?
7. If the impact is based on your research career (body of work), rather than a specific piece of research, describe your related expertise, and how the initial links and opportunities to affect this change occurred
8. If the changes or effects being claimed are clearly underpinned by a specific project and/or output(s), what are the key findings of this research? Simply, what did your research show?
9. What is your specific contribution to this research - what wouldn't have happened if you hadn't been involved?
10. Has the impact started, has it been going for a long time, or has it reached its full potential?
11. When do you think the impact might achieve its maximum effect, if it hasn't already?
12. Are you still delivering the research project that underpins the impact being claimed?
13. Realistically, are you still able to invest any time and resource in creating, tracking and capturing future impacts?
14. What is the geographical scale of the change or effect you are claiming - Gwynedd, Wales, UK, Asia, the whole world?
15. What variety of beneficiaries and disciplines has your research affected and how?