Early detection of anal cancer in men who have sex with men living with HIV by incorporating digital ano-rectal examinations (DARE) into routine HIV care: a prospective cohort study

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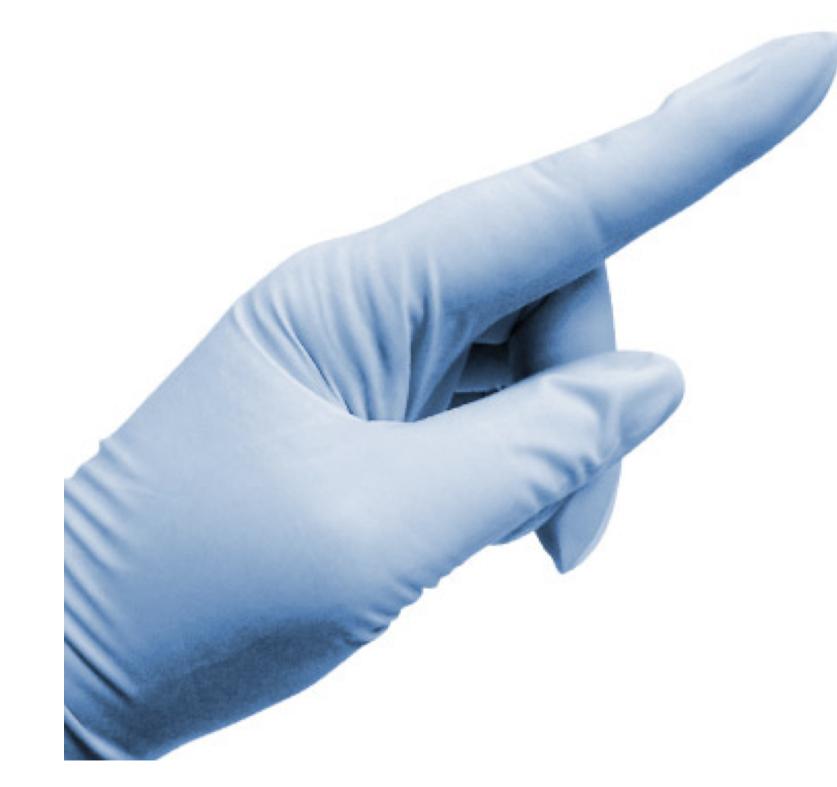
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BACKGROUND

- Men who have sex with men (MSM) living with HIV have a very high risk of anal cancer, the majority of which are detected in late stages, where morbidity and mortality are high.
- Screening using anal cytology is not widely available due to the:
- High proportion of men with abnormal cytology (40-60%) requiring further assessment with high resolution anoscopy (HRA)
- Limited access to HRA, especially in low- and middle-income settings
- Uncertainty regarding the effectiveness of preventing anal cancer through treatment of HSIL
- Incorporating regular digital anorectal examination (DARE) for earlier cancer detection into routine HIV care for MSM living with HIV may be an option for anal cancer screening.

METHODS

- In 2014, we recruited 327 MSM living with HIV, aged 35 and above from one major sexual health centre (n=187), two high HIV caseload general practices (n=118) and one tertiary hospital (n=22) in Melbourne, Australia.
- Men were followed for two years and DARE was recommended at baseline, year 1 and year 2.
- Data were collected regarding patient and physician experience, and health service use.

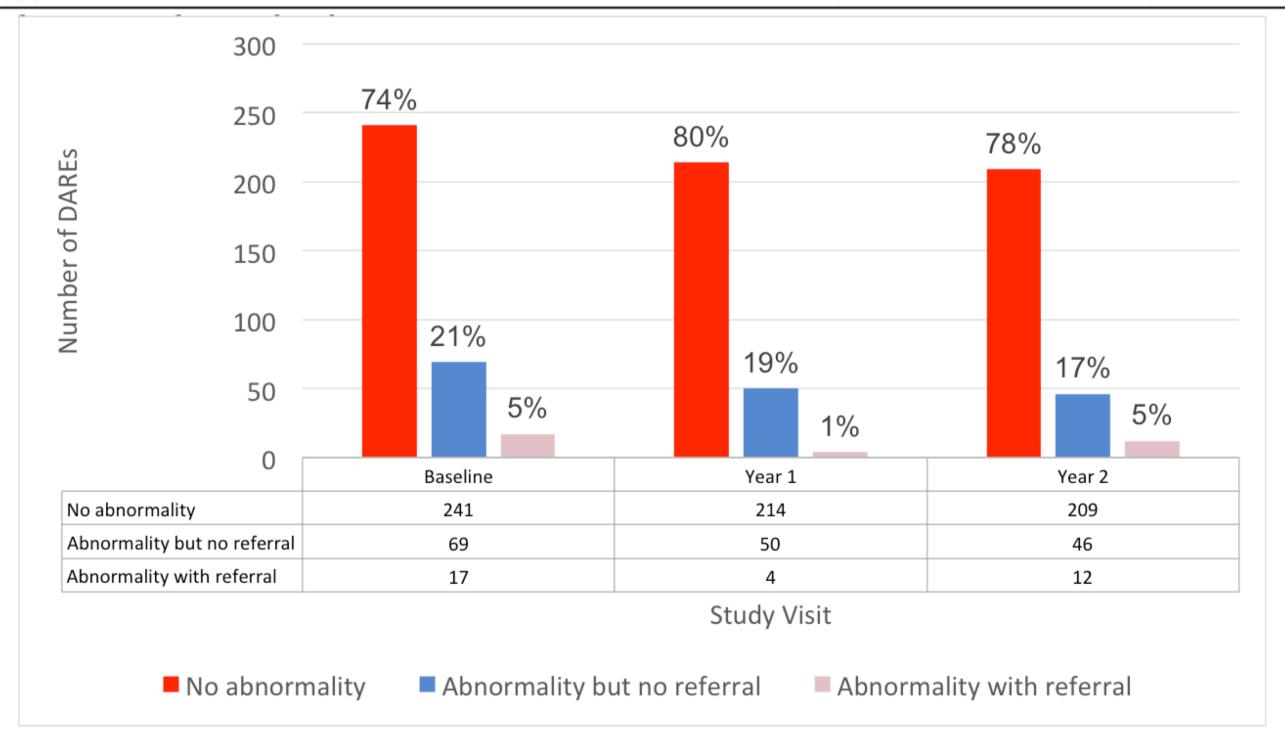


RESULTS

Table 1. Number of new abnormalities detected at DARE since the baseline visit for men who have sex with men living with HIV (N=327)

	diagnoses	diagnoses at year 1 (since baseline)	diagnoses at year 2 (since baseline and Year 1)	diagnoses (since baselin	e)
Skin tag	21	5	5	5	10
Haemorrhoids	12	6	5	4	10
Incidental anal intraepithelial neoplasia 2/3 in	0	3	}	5	8
biopsy of skin tags					
Intracanal warts	24	5	;	2	7
Intracanal polyp/cyst	6	1		3	4
Intracanal lump – diagnosis unclear	6	1		3	4
Anal fissure	3	2	!	1	3
Perianal ulcer – diagnosis unclear	9	2	!	1	3
Intracanal thickening - diagnosis unclear	1	2	!	1	3
Perianal psoriasis	3	2	!	0	2
Perianal lichenification	2	()	1	1
Perianal tinea	1	()	1	1
Enlarged prostate	9	1		0	1
Perianal infection/abscess	1	()	0	(
Intracanal anal cancer	1	()	0	(
Intracanal scar tissue	1	()	0	(

Number of new



- Mean age of men was 51 (SD±9) years, 69% were Australian born, 32% current smokers, and mean CD4 was 630 (SD±265) cells per mm³, with no significant differences between clinical sites.
- Overall, 232 (71%) men received all three DAREs, 71 (22%) received two DAREs, and 24 (7%) had one DARE.
- Adverse outcomes were rarely reported: anal pain (1.2% of total DAREs), bleeding (0.8%) and not feeling in control of their body during the examination (1.6%).
- Of 862 DAREs performed, 33 (3.8%) examinations resulted in a referral to a colorectal surgeon. One stage 1 anal cancer was detected.
- Figure 1 shows the proportions of DARE across the three time points which had no abnormality, an abnormality but no referral, and abnormality with referral.
- The most common incident diagnoses were skin tags and haemorrhoids followed by anal canal warts (Table 1).
- Of 241 men who completed the final questionnaire, 229 (95%, 95% CI: 91-97) would continue to have an annual DARE beyond the study, 190 (79%, 95% CI: 73-84) felt more likely to consult a doctor if they found an abnormality or had anal symptoms.





CONCLUSION

Incorporation of an early anal cancer detection program into routine HIV clinical care for MSM living with HIV showed high patient acceptability, uncommon adverse outcomes and specialist referral rates similar to other cancer screening programs.

