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Digital anal rectal examination (DARE) for anal cancer prevention

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Anal cancer prevention includes vaccination (primary prevention), screening and detection of precursor lesions (secondary prevention) and early detection of cancers (tertiary prevention). Cancers < 2 cm diameter at diagnosis typically have an 80% five year-survival, compared with 45-65% when cancers are > 2 cm, and 20% for cancers that have metastasized.[1] Unfortunately, over 85% of anal cancers are ≥ 2cm at the time of diagnosis.[2] Early detection of anal cancers therefore has a key role to play in improving clinical outcomes.

When conducted properly, digital anal rectal examination (DARE) has the potential to detect anal cancers ≤ 0.3cm diameter. It is simple and safe, with no major adverse effects.

When conducted properly, digital anal rectal examination (DARE) has the potential to detect anal cancers ≥ 0.3cm diameter.[3] It is simple and safe, with no major adverse effects.[4] DARE is therefore the mainstay of tertiary prevention of anal cancer and annual DAREs are recommended in a number of jurisdictions for men who have sex with men living with HIV. Table 1 lists other populations at increased risk of anal cancer, for which DARE may be of value.[5] DAREs may also be used to evaluate anal cancer persistence or recurrence following initial treatment. They may be conducted by health professionals from a variety of backgrounds, and self-DARE has been advocated in high-risk individuals, such as HIV-positive men who have sex with men (MSM). Systematic performance and careful monitoring of outcomes are important to ensure the quality of examinations.[5]

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Digital anal rectal examination (DARE) may also be used to evaluate anal cancer persistence or recurrence following initial treatment.

Clinicians typically place the patient undergoing DARE in the left lateral decubitus position, with the knees up towards the chest, but sometimes may use the lithotomy, prone or right lateral decubitus positions. Swabbing for anal cytology and/or HPV DNA and STIs should always be performed before the DARE, as lubricant may interfere with testing technologies.

Table 1

Groups who may potentially benefit from digital anal rectal examination (DARE), with proposed frequencies

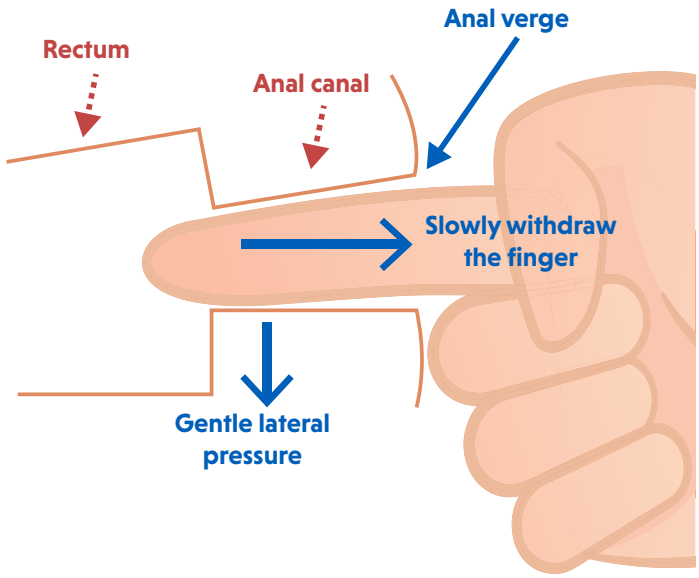
Group	Possible DARE frequency
Those with symptoms suggesting anal cancer such as: bleeding, anal/perianal mass, tenesmus, pain, altered bowel habit[6]	Immediately, with referral for anoscopy, high-resolution anoscopy, or to a colorectal specialist if the initial DARE is negative
HIV-positive men who have sex with men	At least annually
Those with demonstrated, current, histologic anal high-grade squamous intraepithelial lesions	At least annually
Those with a history of treated anal squamous cell carcinoma	Every 3–6 months for a period of 2 years, and 6–12 monthly until 5 years, with clinical examination including DARE and palpation of the inguinal lymph nodes[7]
Other immunosuppressed populations, such as other groups with HIV infection and recipients of solid organ transplants	Annually
HIV-negative men who have sex with men	Every two to five years, depending on further risk assessment, such as age and smoking status
Women with a history of cervical, vulvar or vaginal neoplasia or cancer	Every two to five years, depending on further risk assessment. Consider including at each cervical cytological review.

Digital anal rectal examination (DARE) specifically emphasizes palpation of the entire anal canal and visualization/palpation of the perianus (defined as 5cm distal to the anal verge).

DARE specifically emphasizes palpation of the entire anal canal and visualization/palpation of the perianus (defined as 5cm distal to the anal verge). Details of how to perform a DARE can be found elsewhere.[5] Essentially it involves a thorough inspection of the perianus, followed by the insertion into the anal canal of a gloved, lubricated, index finger. The examination is then conducted in a systematic fashion, ensuring that all octants are palpated, extending from the rectal space to the external anal sphincter. This is illustrated in Figure 1.

Figure 1

How to perform a digital anal rectal examination (DARE)

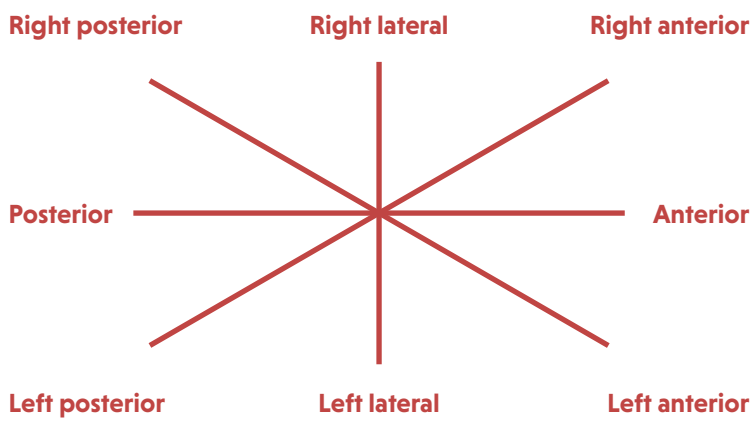


Once the digital anal rectal examination (DARE) has been completed, a precise description of the findings should be recorded, including the following components:

- The exact location of any abnormality, using standard anatomic location reporting, as is illustrated in Figure 2, together with a note of whether the lesion is in the proximal, mid canal, distal canal, protruding or extending to the perianus.
- Lesions may be masses, linear (such as a fistula tract), or a focal area of thickening or granularity.
- The size of the lesion should be estimated, if it is possible to feel the proximal limit.
- The contour should be described in terms of, for example, whether it is smooth or irregular, hard or compressible, superficial or submucosal, fixed or mobile.
- The inguinal regions should be palpated for any evidence of lymphadenopathy.
- Finally a note should be made of whether there is any blood on the withdrawn finger, and location of any tenderness experienced by the patient.

Figure 2

Location descriptors (for patient in the left lateral position)



Note: these descriptors are markedly different if the patient is in a prone, lithotomy position or right lateral position.

Digital anal rectal examination (DARE) is a cheap and simple procedure that has the potential to save lives. Competent practitioners should be able to find most anal cancers.

False-negative examinations are a major concern, as they potentially lead to incorrect reassurance of the absence of an anal cancer. These can be reduced by conducting thorough, systematic examinations regularly, and by encouraging patients to re-present promptly if any new symptoms develop. Because of the risk of false-negatives, self-DARE should only be offered to select high-risk individuals who have undergone thorough training.

In summary, DARE is a cheap and simple procedure that has the potential to save lives. Competent practitioners should be able to find most anal cancers. Failure to perform DAREs in at-risk individuals increases the likelihood of late presentation, with consequent poor outcomes. ■

DISCLOSURE

The author declares nothing to disclose.

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