Cancer Screening: Call for Evidence

British Association for Cytopathology

Problems and solutions

1. Immediate/recent issues

- Cervical

The cervical screening programme (CSP) has worked well since its inception, and has reduced the incidence of cervical cancer over many years. The delivery model has changed from cytology only, to cytology first with reflex HPV testing, to now the introduction of HPV first and reflex cytology. These changes have been on the background of many scientific, clinical and NHS changes. Whilst it has worked well, it has suffered from many well publicised and often very high profile problems. It has a highly motivated, skilled and trained laboratory workforce. These staff should not be lost and their skills can be utilised within pathology or elsewhere in the NHS with retraining if required.

2. Governance of Cancer Screening

Problem : the move to introduce HPV Primary screening has highlighted major problems with the PHE and NHSE relationship. The ability for them to work well together and include sound professional relevant input and advice has not worked well. Communication has been generally poor at many levels, and the credibility of both has been seriously challenged on occasions. Confidence in the process has varied. At local level commissioners have invariably done their best with little or often poor advice. The NSC plays a major role in defining all screening programmes, and whilst this has been much improved, it may warrant clarifying in certain aspects. In general, all guidance needs a speedier route from development to implementation.

Solution: the interaction of the advisory and commissioning arms of the NHS need to be far more effective and able to incorporate professional advice. Whether these functions should be integrated, or their remits altered, may be necessary. One body would be more streamlined, one that was able to cover both functions. Involvement and communication must be better.

QA which is integral to the CSP and has helped raise the quality of it, must be maintained but again needs a clear mandate, communication route and its approach must be both evidence based and consistent. Performance indicators used in the programme must be realistic and achievable going forward –e.g. 14 day TAT is used as a quality standard and is used to assess the performance of the programme and yet is largely unachieved so public perception is the programme is not working. Coverage also must be set the targets which are realistic and achievable.

At the NSC level, its remit as to what is a population based screening programme, what counts as major vs minor changes in a screening programnme, and how this is done, may need re-evaluating and defining. This is a national screening programme, but delivery is left in the hands of local commissioning/providers, which can lead to significant differences in the ability to run the service. Similarly, significant differences can occur between colposcopy units leading in some cases to a bespoke laboratory service, this will be unsustainable in primary HPV screening when the number of colp units served will increase so much.

3. Uptake/coverage in general and in vulnerable and minority groups

Problem : coverage is low and falling. It is essential to improve it to maintain an effective population based screening programme. Different approaches to screening delivery, e.g. self sampling, may help. Different social, ethnic and religious groups have different perceptions and understanding of what cervical cancer and screening for it is, and advice from those in and who understand these groups is required to help ensure that any population based programme is able to reach all aspects of UK society.

Solution : campaigns and positive media can help to improve coverage and uptake. Any such campaigns must be co ordinated with the ability of the rest of the programme to ensure effective and timely delivery. Recent campaigns have resulted in a poor experience for women and low morale in the laboratories screening the samples. The introduction of self sampling, either for specific groups or generally, should be rapidly piloted if not formally introduced as soon as can be. Use of targeted campaigns to groups in society can be effective. The use of social media and the ability to be able to deliver results electronically to women (email/text etc) must be greater to engage with women.

Choice of where a woman can go for her cervical screening test as the vast majority are only offered through their GP with limited slots and times which does not fit in with today's lifestyle.

Look at offering women more choices such as hub clinics, community clinics etc. Explore the possibilities of 'pop-up' clinics in shopping centres, supermarkets and gyms. Consider the possibility of mobile screening clinics.

4. IT issues

Problem: The Exeter system has been used since 1988, and it is a tribute to it that it is still in place, despite being identified as not fit for purpose in 2011. It links with NHAIS and lab systems, and as identified in the recent NAO report is too old, with many manual workarounds. The recent stripping of Capita of its screening function due to publicised issues in screening and the apparent development of a bespoke screening system may address this.

Solution : the CSP, along with all other mass population screening programmes, needs a modern, functional and flexible screening IT system. It must be able to deliver the needs of the programme now, and be able to develop into what will be required in the future. It must include HPV vaccination data, screening history, and clinical outcomes (colposcopy and histology). It must be an integrated system, able to link easily with all required systems, and serve the functional needs of those within the CSP nationally. It must be able to easily deliver information for the screening process, but also data for monitoring the effectiveness of the programme at as many levels as is possible. It must be accessible for all involved within the CSP and not restricted to area.

5. Workforce issues

Problem : no national understanding of what is required to deliver cervical screening has ever been taken, with all delivery left to local providers. This is at all levels, and often staff hear of decisions second hand or via the media. This applies to all staff in the CSP.

Solution : the move to HPV Primary and the reduced laboratory profiles should allow for a realistic national laboratory screening workforce plan. This would include training, on going education and retention/recruitment policy, some of which is already in place. It should also include looking at alternative roles for staff as and when indicated to ensure that the skills of the workforce are not lost and are retained and used as best as they can be. The impact on the delivery of training via the current cytology training schools will need assessing to ensure continued access to high quality training in the future. These schools deliver a wide range of training, but with only 9 labs likely the number of schools and their funding needs re-evaluating.

6. Equipment Issues

Problem: in general the CSP is well supported for the equipment necessary to carry out its laboratory function. There are a number of guidances re the approved equipment and its use however the process can be slow and labourious with layers of bureaucacy. Equipment in its broadest sense must include all relevant aspects such as direct analytical equipment, but also IT, Office etc.

Solution: the CSP must maintain its appropriate, relevant and evidence based guidance to ensure patient safety but we need to develop a system that is quicker to react to new tests which may benefit women in the CSP The need for compliance, as with all guidance, must be integral to any contracting and form part of the ongoing QA process. If data indicates certain platforms are more effective (in what ever assessment is used to measure this) then a definite steer as to what can and should be used must be taken.

7. Potential for risk-based screening?

Problem: currently all women receive the same screening pathway, irrespective of actual or potential risk. Whilst different HPV subtypes are tested for, management does not currently rest on this. Other bio markers, such as methylation status, are being investigated. The HPV vaccinated cohort are now entering the screening programme in significant numbers, and this may affect screening delivery.

Solution : the CSP must base its pathway based on best available proven scientific evidence. If the use of HPV subtypes, or any other bio marker, can offer a better approach to the clinical management and hence triage women who are at higher risk from those with a lesser risk, this needs to be incorporated. This may alter direct clinical referral and follow up. As such, all other parts of the programme must be able to adapt to such changes easily. The vaccinated cohort effect may allow for a different programme all together with time.

8. Scope for Artificial Intelligence

Problem : the interpretation of cytology slides has been dependent on human skill since the CSP was introduced, and will continue to do so. Whilst there are some technologies that can aid this they are in general expensive but still depend on human input and interpretation. True computer interpretation of cytology is a long way off, but could arguably occur.

Solution : the use of AI may not be cost effective given the falling cytology workloads in the CSP. It may have a role if staffing levels fall to critical levels, but the cost effectiveness of this would need assessing. Alternative strategies to cytology, such as molecular markers may mean that the role of cytology may decease or even be redundant within the CSP. However, cytology interpretation will be required for the foreseeable future. In colposcopy there may be scope for use of AI to help improve assessment of the cervix, e.g. Z scan and other systems.

9. Forward Look – How should screening look like in 2028?

The impact of the vaccinated programme and developments in potential molecular markers, ought to have a major impact on the CSP. Whilst 2028 may be too early, one could easily envisage a CSP where screening is done on cervical samples (taken by women themselves potentially) which are evaluated for disease/risk by HPV status alone or in combination with other markers. In this scenario, the role of cytology may well be small if in fact used at all. The use of non-cervical samples may also be able to be developed, using blood and/or urine samples but again this is a way off as yet. What ever the actual mode of delivery, the need for a trained and competent workforce to undertake all aspects of the CSP must be developed and maintained, along with suitable infrastructure (especially IT) to enable it to operate effectively.