

## The Multi-Specialty Recruitment Assessment (MSRA)

- The MSRA is an assessment tool that is utilised by numerous **post-graduate** speciality training programmes in the United Kingdom (UK) as part of their recruitment process (Table 1).
- The aim of the MSRA is to assess **foundation level competence**

Table 1: UK medical specialties that use the MSRA

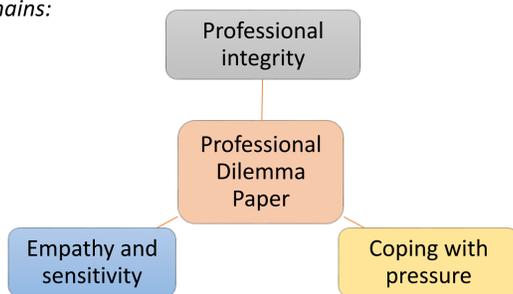
- GP
- Radiology
- Ophthalmology
- Obstetrics and Gynaecology
- Psychiatry
- Neurosurgery
- Child and Adolescent Mental Health Services
- Community Sexual and Reproductive Healthcare

- The assessment has two parts;

### Clinical Problem Solving (CPS)

### Professional Dilemmas (PD)

- The **CPS** section tests the **application of medical knowledge**
- The **PD** section is an Situational Judgement Test (SJT) which assesses **professional attributes** covering the following 3 domains:



(Work psychology group, 2019)

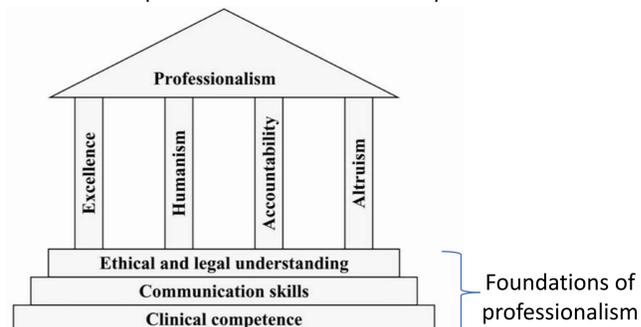
## Defining Medical Professionalism

The General Medical Council (GMC) has produced the **Generic professional capabilities framework** to demonstrate the 'components that underpin professional medical practice' (GMC, 2020)



## Defining Medical Professionalism

Stern (2005) defined professionalism by demonstrating three foundations of professionalism with its four pillars.



- Excellence:** Commitment to the foundations of professionalism
- Humanism:** Respect, empathy, compassion, honour and integrity
- Accountability:** Justifying and taking responsibility for ones own actions
- Altruism:** Acting in the patients best interests

## Does the MSRA assess Professionalism?

To appraise the use of the MSRA in assessing medical professionalism, we will utilise 3 elements of the **Van Der Vleuten (1996) utility formula.**

NB: The MSRA accounts for all elements of the utility equation

$$U = R w_r \times V w_v \times E w_e \times A w_a \times C w_c$$

R (Reliability), V (Validity) and A (Acceptability)

- Reliability:** Is the MSRA a consistent measure of professionalism?
- Validity:** Is the MSRA assessing professional attributes?
- Acceptability:** Is the MSRA accepted by stakeholders?

## Is the MSRA a consistent measure of professionalism?

Patterson et al. (2012) SJT scores are not influenced by coaching. Reflective of internal professional attributes and values.

### Reliability

Computer based examination eliminates marker subjectivity.

Patterson et al.(2016): Good internal consistency between the MSRA ( $\alpha \geq 0.80$ ) and previously used radiology recruitment methods.

## Is the MSRA assessing professional attributes?

Table 2: The validity of the MSRA in its assessment of professionalism (Dornan et al., 2011)

Type of Validity	Evidence
<b>Face Validity</b> Does the MSRA assess professionalism?	<ul style="list-style-type: none"> <li><b>PD:</b> directly relates to the GMC framework (GMC, 2020).</li> <li><b>CPS:</b> based on the UK Foundation Programme (UKFP) curriculum.</li> </ul>
<b>Content Validity</b> Does the MSRA assess all professional attributes?	<ul style="list-style-type: none"> <li><b>CPS:</b> addresses 'Clinical Competence' and 'Excellence' (Stern, 2005) and 'Professional Knowledge'(GMC, 2020)</li> <li><b>PD:</b> see question example below:</li> </ul>

Encourages accountability

Demonstrating humanism by showing colleagues respect and encouraging team work

Lacks humanism and accountability

Demonstrates integrity, situational awareness and accountability

May compromise patient care

You are a Foundation (F2) doctor working in ophthalmology. You are on the ward when a fellow F2 doctor, Tom, tells you that he feels upset about the attitude of one of the nurses, Margaret, towards him. Tom tells you that whenever he asks Margaret to perform a task for him, Margaret is reluctant and always seems to have an excuse for not doing it. You have never observed similar behaviour from Margaret.

Choose the THREE most appropriate actions to take in this situation.

A. Suggest that Tom thinks about how he usually asks Margaret to perform tasks for him.

B. Suggest that Tom speaks with Margaret to discuss their working relationship.

C. Suggest that Tom keeps a written record of Margaret's behaviour towards him.

D. Suggest that Tom reports Margaret's behaviour to the nurse in charge on the ward.

E. Tell Tom that you have not observed such behaviour from Margaret.

F. Suggest to Tom that he may be misinterpreting Margaret's behaviour.

G. Suggest to Tom that he avoids delegating tasks to Margaret in future.

H. Suggest to Tom that you could act as a witness when he next asks Margaret to do something for him.

Correct Key: ABE

(The GP National Recruitment Office, 2020.)

<b>Construct Validity</b> Can the MSRA differentiate between candidates professionalism?	<ul style="list-style-type: none"> <li><b>Koczwara et al. (2012):</b> Strong correlation between CPS and PD scores.</li> <li><b>Christian et al. (2010):</b> Correlation between PD score and general cognitive ability.</li> </ul>
<b>Predictive Validity</b> Does the MSRA predict future professionalism?	<ul style="list-style-type: none"> <li><b>Koczwara et al., (2012):</b> MSRA score predicted performance at GP selection centres. The PD paper had the highest correlation.</li> <li><b>Patterson et al., (2016):</b> CPS had predictive validity for radiology trainees performance in the FRCR. No FRCR correlation with PD scores.</li> <li><b>Cousans et al., (2017):</b> SJT scores correlated with UK foundation doctors performance rated by their supervisor. Low SJT scores predict trainees who may have difficulties.</li> </ul>
<b>Consequential Validity</b> Are there consequences of the assessment?	<ul style="list-style-type: none"> <li>The MSRA has significant consequences for both candidates and stakeholders (Table 1).</li> </ul>

## Is the MSRA accepted by stakeholders?

- The MSRA is used in post-graduate recruitment by multiple specialities. This demonstrates **acceptability amongst stakeholders** (Table 1).
- Plint and Patterson (2010) showed that **75% of candidates felt the MSRA was fair** in UK GP Recruitment (Table 3).

% of candidates (N=6586, 2007) (N = 5866, 2008)	Agree
Content of clinical problem solving test appeared fair	80%
Clinical problem solving test gave sufficient opportunity to indicate ability for GP training	62%
Content of situational judgement test appeared fair	53%
Situational judgement test gave sufficient opportunity to indicate ability for GP training	42%
The content of the shortlisting assessment (overall) appeared to be fair to all candidates	75%

**Adverse impact:** the extent to which particular groups perform poorly compared with other groups. (Patterson et al., 2012)

- Ethnicity:** Mean scores between ethnic groups are smaller for SJTs than in tests of cognitive ability → Adverse impact on CPS
- Gender:** Consistent data shows females score higher on SJTs than males.

## Conclusions

Measure	Conclusion	Suggested Improvements/ Future Research
<b>Reliability</b>	<ul style="list-style-type: none"> <li>Good internal reliability and objectivity.</li> </ul>	
<b>Validity</b>	<ul style="list-style-type: none"> <li><b>Written assessment so not in context – low fidelity</b></li> <li>Content is strongly linked the GMC's definitions of professionalism.</li> <li>The CPS positively predicts performance in scientific knowledge based examinations.</li> </ul>	<ul style="list-style-type: none"> <li>Further research is required to align the MSRA with trainee outcomes that assess professionalism, such as the Annual Review of Competency Progression (ARCP).</li> </ul>
<b>Acceptability</b>	<ul style="list-style-type: none"> <li>Accepted by both the recruiter and candidates.</li> <li>Adverse impact of different ethnicities and sex on MSRA score.</li> </ul>	<ul style="list-style-type: none"> <li>Research into <b>why gender adversely impacts MSRA scores</b> is required improve the assessment of professionalism.</li> </ul>

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