

# Observational and Iconodiagnostic Training for Surgical Residents in Museum Mauritshuis in The Hague

*Thomas van Gulik<sup>1</sup>, Floortje Huizing<sup>2</sup>, Stella Bult<sup>3</sup>, Alexander Leijdesdorff<sup>4</sup>, Alexander de Mol van Otterloo<sup>5</sup>*

<sup>1</sup> Dept. of Surgery, Amsterdam University Medical Center, University of Amsterdam, The Netherlands  
[t.m.vangulik@amsterdamumc.nl](mailto:t.m.vangulik@amsterdamumc.nl)

<sup>2</sup> Dept. of Surgery, Haaglanden Medical Center, The Hague  
[floortjehuizing@gmail.com](mailto:floortjehuizing@gmail.com)

<sup>3</sup> Dept. of Surgery, Amsterdam University Medical Center, University of Amsterdam, The Netherlands  
[stellabult@hotmail.com](mailto:stellabult@hotmail.com)

<sup>4</sup> Dept. of Surgery, Haaglanden Medical Center, The Hague  
[a.leijdesdorff@haaglandenmc.nl](mailto:a.leijdesdorff@haaglandenmc.nl)

<sup>5</sup> Dept. of Surgery, Haaglanden Medical Center, The Hague  
[alexanderdemolvannotterloo@gmail.com](mailto:alexanderdemolvannotterloo@gmail.com)

## BACKGROUND

Art-based observational training is increasingly recognized as a valuable addition to educational programs in the medical curriculum (Smydra, 2022; Naghshineh 2008; Kumar 2021). In surgery, operative skills largely rely on visual information and correct interpretation (Cohen, 2023).

We have set-up an art-based educational workshop for surgical residents of the Haaglanden Medical Center (HMC) in collaboration with the Museum Mauritshuis (MM), both in The Hague. The content of the workshop is based on structured observation of different art works leading to an interactive discussion involving an art-educator.

Herein, we report our initial experience with these visual art workshops in the MM.

## MATERIALS AND METHODS

The MM in The Hague is an important museum in the Netherlands, boasting a series of iconic masterpieces by famous 17<sup>th</sup> century painters. The Haaglanden Medical Center (HMC) is a top clinical hospital in the city of The Hague with an advanced surgical department that offers a full-scale surgical residency program, as part of the regional surgical training center coordinated by the surgical department of Leiden University Medical Center.

Based on the art-based observational training program and format established in Amsterdam by the Dept. of Surgery of the Amsterdam University Medical Center and the Rijksmuseum in Amsterdam, we introduced the same visual art program in the HMC in The Hague, in collaboration with MM (De Ruiter, 2024). This program uses the ABCD-method for structured observation of an image depicted in a painting followed by a group discussion (van Gulik, 2024). The ABCD-method provides a template for critical observation of an art work by viewing the depicted image in layers (Table 1).

**Table 1.** The ABCD-method consisting of four stages in observing an art work

<i>A - Attention</i>	Take your time and concentrate by looking at the object for one minute.
<i>B - Behold</i>	Name the objects that stand out, describe how the observations are inter-connected and find an interpretation of the work
<i>C - Communicate</i>	Connect with one another and discuss thoughts and experiences.
<i>D - Diagnose</i>	Diagnose; find a physical abnormality depicted in the work

In addition, the method includes identification of a medical feature (D), be it a physical abnormality or medical circumstance typical of the era in which the art work was created, providing an iconodiagnostic part of the workshop. Drawing-exercises were also part of the visual art workshop (Figure 1).

Following the workshops, the content was evaluated by discussion with the participants and completed with a questionnaire.



**Figure 1.** Surgical residents of Haaglanden Medical Center at work in the Museum Mauritshuis in The Hague.

## RESULTS

The final program and series of paintings to be viewed were decided upon by the surgeons of HMC and the art-educators of the MM. Seven paintings were selected among the permanently displayed collection of the MM, all containing a medical feature.

As of November 2023, three groups of surgical residents (year 1-3) enrolled in the program, consisting of a workshop of 2 hours duration. The groups comprised 6 to 8 residents who were accompanied by 2 to 3 of the initiating surgeons and an art-educator. In all, 27 residents and surgeons participated. The paintings were visited and discussed according to the ABCD-method. These included among others, the Girl with a Pearl Earring by Johannes Vermeer (1665), the Old Woman and Boy with

Candles by Peter Paul Rubens (1616) and the Anatomy Lesson of dr. Nicolaes Tulp by Rembrandt (1632). (See collection Museum Mauritshuis: [Museum Mauritshuis: Mauritshuis.nl](https://www.museum-mauritshuis.nl)). As an example of a medical feature discussed, correctness of the flexor tendons depicted in Rembrandt's Anatomy Lesson of dr Nicolaes Tulp was argued (Ijpm, 2024). All residents responded with enthusiastic comments regarding the workshops. The majority acknowledged the educational value of their experience in the museum in terms of handling visual bias and enforcing communications skills

## DISCUSSION

The observation and correct interpretation of diagnostic imaging studies and their translation to therapeutic surgical interventions are crucial in surgery (Cohen, 2023). The objective of the visual art workshops in the museum was to train the eye by critically observing art works, while at the same time dealing with empathy and ambiguity as evoked by the artist through the depicted image. The iconodiagnostic components of the paintings provided the medical context of the workshop (van Gulik, 2024).

The participating residents all thought the visual art workshop worthwhile and of value for their professional education. A visit to the MM is now embedded in the training program for surgical residents of the HMC in The Hague.

## CONCLUSION

A program providing observational and iconodiagnostic training for surgical residents of the Haaglanden Medical Center conducted in Museum Mauritshuis in The Hague, proved successful in terms of adding to professional skills.

## ACKNOWLEDGEMENTS

The authors wish to thank Shahaila Winklaar and Anneloes Blok, art-educators of Museum Mauritshuis, for their collaboration in our educational project.

## REFERENCES

- Clin Ter 2024, 175 (2): 101-109. doi: 10.7417/CT.2024.5040
- Cohen, S., et al. Art in surgery: A review of art-based Medical Humanities Curricula in Surgical Residency. *Journal of Surgical Education*. 2023 Mar; 80(3): 393-406. <https://doi.org/10.1016/j.jsurg.2022.10.008>
- De Ruiter, P., et al. Art-based observational training for medical students and surgical residents in two Dutch museums. <https://clinicaterapeutica.it/ojs/index.php/1/article/view/888/624>
- Ijpm, F., Van Gulik, T., 2024. Amsterdam's Anatomy Lessons Dissected. Amsterdam, The Netherlands: Amsterdam University Press.
- Kumar, A., et al. Using visual arts education in dermatology to benefit resident wellness and clinical communication. *MedEdPORTAL*. 2021; 17: 11133. doi: 10.15766/mep\_2374-8265.11133
- Naghshineh, S., et al. Formal Art Observation Training Improves Medical Students' Visual Diagnostic Skills. *J Gen Intern Med*. 2008 Jul; 23(7): 991–997. doi: [10.1007/s11606-008-0667-0](https://doi.org/10.1007/s11606-008-0667-0). PMCID: PMC2517949, PMID: [18612730](https://pubmed.ncbi.nlm.nih.gov/18612730/)
- Smydra, R., et al. Integration of Arts and Humanities in Medical Education: a Narrative Review. *J Cancer Educ* 2022 Oct;37(5):1267-1274. doi: 10.1007/s13187-021-02058-3
- Van Gulik, T., Bult, S., De Ruiter, P. Evaluation of the ABCD-method in art-based observational training for medical students and surgical residents in the museum. *Int J Surgical Education*, June 2024, [ijsed.com/article/120058](https://ijsed.com/article/120058)