

# The role of neoadjuvant chemotherapy in advanced Ovarian Cancer (AOC): Avoiding ‘needless hurt’ or a Trojan horse?

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Despite all recent revolutionary systemic advances in the management of AOC, the value of surgery remains unshaken as one the strongest prognostic factors directly associated with survival (1). Intensive debate persists whether a less radical approach facilitated through neoadjuvant chemotherapy (NAC) followed by interval debulking surgery (IDS) is less harmful. But are we talking about a matter of fact or rather IDS being a “trojan horse”?

Jo Morrison (2) openly criticizes in her recent commentary (2) the primary debulking surgical (PDS) approach strongly arguing in favour of NAC/IDS. The quoted evidence is well known to be flawed through low surgical quality, long recruitment periods and lack of selection algorithms (1). The SCORPION-trial, designed as a superiority trial, is negative, since the final results showed no survival- or QoL-benefit, . As a direct consequence the TRUST-trial (AGO-OVAR-OP.7/NCT02828618) (3) was developed. The name “Trust”, aimed to indicate that all participating centres committed to screen and register all consecutive eligible patients without selection bias. As crucial difference to the other NAC-studies, only fit patients who were able to be operated tumomorf free, as assessed by an expert team, were included. Most importantly, also those patients who responded poorly to NAC proceeded to IDS.

In her commentary Morrison states that the TRUST-centers were “very small number of highly specialised, non-representative centres” (2). With 20 participating centres from 8 countries across Europe, USA and UK evaluating 800 patients, is the Trust study the largest RCT in the field covering more countries and patients than any other study so far. The centres eligibility criteria correspond with the quality-assurance and accreditation criteria defined by the European Society of Gynaecological Oncology (ESGO) (4), and

so they definitively don't represent unicorn centres; on the contrary they reflect the reality and future of AOC-surgery within centralised and specialised environments. Moreover, all centers were actively involved in practice changing surgical trials such as the LION- and the DESKTOP-III. The authors of the present letter belong to the top recruiters and so it is difficult to accept such unfounded criticism.

Morrison claims that the peer reviewed ESGO-Quality indicator of >50% of AOC-patients undergoing PDS is likely to cause unnecessary harm (2). While we know that NAC can bring fragile patients and/or with inoperable disease to a state that they can receive life-prolonging cytoreduction as compared to no surgery at all and therefore is beneficial for the right patients 'population; National Cancer Data Base evidence including almost 23,000 patients shows that PDS is associated with significantly improved survival compared to NAC in fit AOC-patients who can be operated tumorfree (5). PARP-inhibitor studies related to surgical outcome, reinforce this by demonstrating the highest magnitude of benefit being derived from PARP-inhibitors in those women operated tumorfree at PDS (6).

Lastly, Morrison states that it is openly implied that NAC is used because someone is not a good surgeon, making an open, honest debate uncomfortable. Since we as gynaecological oncology community indeed support transparency and full disclosure, we also need to call the elephant in the room and recognise that NAC is often being misused to overbridge time for patients who can't be operated timely due to limited capacity and gaps in infrastructure and expertise.

So, before saying 'just because you can, doesn't mean you should', we should make sure we really can safely apply the right treatment to the right patient.

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