FC-03

Cardiovascular safety in users of different combined oral contraceptives – Final results from the INAS-SCORE study

Klaas Heinemann[a], Christian Franke[b], Sabine Moehner[b], Thai Do Minh[b] and Juergen Dinger[b]

[a]Berlin Center for Epidemiology and Health Research (ZEG), Berlin, Germany; [b]ZEG Berlin, Berlin, Germany

Background: A new combined oral contraceptive (COC) with a 26-day regimen containing estradiol valerate (EV) and dienogest (DNG), known as Qlaira (and Natazia in the US), was launched in 2009. It was unknown whether this new regimen and combination has an impact on the cardiovascular risk associated with the use of COCs. The INAS-SCORE study was conducted to investigate the cardiovascular long- and short-term safety of the EV/DNG containing COC compared to established COCs.
Design/methods: The 'International Active Surveillance Study – Safety of Contraceptives: Role of Estrogens' (INAS-SCORE) was requested by the Medicines Evaluation Board as a post-authorisation safety study. It was a large, prospective, controlled, non-interventional, long-term cohort study with active surveillance of the study participants. It was conducted in the US as well as in Austria, France, Germany, Italy, UK, Poland and Sweden. Women prescribed a new COC (either first-time user or switcher) were recruited by a network of prescribing physicians. Recruitment started in 2009 and was finished in 2012. Every 6 months during the first two years and yearly thereafter, the woman was contacted and specifically asked about hormonal contraceptive use and serious adverse events. All self-reported clinical outcomes of interest were validated by healthcare professionals. Main clinical outcomes of interest were venous thromboembolism and arterial thromboembolism. The last patient follow-up was finalised in January 2017. All analyses make allowance for confounding, using multivariate techniques such as Cox regression models. As requested by the European Medicinal Agency, final analyses are based on the European data only.
Results: The final analysis was based on 112,638 women-years (WY) of observation and 69,888 WY of OC exposure. Overall, 68 VTEs and 32 ATEs have occurred. For Qlaira (11 VTE), the VTE incidence was 7.1/10,000 WY and for Other COCs (44 VTE) 8.1/10,000 WY, including 9 VT in LNG-COC users (8.8/10,000 WY). The crude HRs for Qlaira vs. Other COCs and Qlaira vs LNG-COCs were 0.9 (95% CI: 0.4–1.7) and 0.8 (95% CI: 0.3–2.0), respectively. Adjustment for age, BMI, duration of current OC use and family history of VTE lead to HRs of 0.4 (95% CI: 0.2–0.9) and 0.4 (95% CI: 0.2–1.1), respectively. ATE incidences were very low with 0.7 ATE/10,000 WY for Qlaira and 3.5 ATE/10,000 WY for Other COCs. With regard to ATE, no results from the standard model were available because the minimum number of events per cohort was not reached. As requested by the FDA, a modified COX model was used with only duration of use and exposure as time-dependent covariates. The adjusted hazard ratios (HR_{adj}) for DNG/EV vs. COC_{other} and vs. LNG subcohort were 0.1 (95% CI 0.0–0.6) and 0.1 (95% CI 0.0–1.2), respectively.
Conclusions: The results do not suggest a higher VTE or ATE risk of Qlaira users compared to users of Other COCs in a study population that is representative of actual users.

Disclosure statement

This was a post-authorisation safety study (PASS), which was requested by the European Medicines Agency (EMA). It was supervised by an Independent Safety Monitoring and Advisory Board. The study was supported by an unconditional grant from Bayer AG.

FC-04

Research integrated with policy makers: real-time health policy and service improvements during 'CART-mifepristone implementation research', Canada

Wendy V. Norman[a], Sarah Munro[a], Courtney Devane[a], Sheila Dunn[b], Edith Guilbert[c], Marie-Soleil Wagner[d], Judith Soon[a], Regina Renner[a], Melissa Brooks[e], Dustin Costescu[f], Ashley Waddington[g], Janusz Kaczorowski[h], Cheryl Davies[i] and Tamil Kendall[j]

[a]University of British Columbia, Vancouver, Canada; [b]University of Toronto, Toronto, Canada; [c]Institut national de santé publique du Québec, Québec, Canada; [d]Université de Montréal, Montréal, Canada; [e]Dalhousie University, Halifax, Nova Scotia, Canada; [f]McMaster University, Hamilton, Ontario, Canada; [g]Queen's University at Kingston, Kingston, Ontario, Canada; [h]Université de Montréal, Montréal, Canada; [i]BC Women's Hospital & Health Centre, Vancouver, Canada; [j]Perinatal Services BC, Vancouver, Canada

Objective: Fewer than 300 physicians provided induced abortions in Canada in 2012, and care was largely provided in surgical facilities in large southern cities. The January 2017 introduction of mifepristone has the potential to address this geographic disparity. However, regulatory restrictions to distribution, prescribing and dispensing present substantial barriers to primary care providers, a crucial element for equitable abortion access. Our objectives:

a. understand implementation facilitators/barriers for mifepristone nationally;
b. assess impact of an online 'Community of Practice' clinical support platform;
c. develop integrated knowledge translation (iKT) to improve mifepristone related health policies, systems and practice.

Methods: Our prospective mixed methods implementation research met StaRI standards. Beginning January 2017, we enrolled physicians, pharmacists and stakeholders. Quantitative data included surveys based on Greenhalgh's theory. Qualitative data included open survey questions, semi-structured interviews and Community of Practice interactions. Using iKT with a diverse team of relevant decision makers, we aimed to detect and mitigate health policy, system and service barriers to support effective primary care mifepristone implementation.
Results: As of October 2017, 283 physicians/369 pharmacists completed surveys; we conducted 63 interviews, and 177 physicians/165 pharmacists joined the Community of Practice. Among physicians, 32% had never provided abortion before, and 8% worked in communities with no prior abortion service. Triangulation of findings identified barriers including: mandated physician-only dispensing and pharmacist training, inadequate drug subsidy and practitioner-payment mechanisms, and confusion about changing regulations. Continuous iKT strategies included knowledge brokering with evidence briefs, geo-maps relating progressive policy to improved access, Community of Practice member announcements, face-to-face meetings, and regular correspondence with health policy, system, and service decision makers. The Community of Practice effectively connected prescribers with dispensing pharmacies; site members used clinical decision support tools, exchange of case studies and expert advice services. Over the first 10 months, leaders from government, health system and professional organisations increasingly requested evidence briefs and joined monthly team meetings. Our iKT enabled nimble detection and timely removal

of barriers, including the federal requirements for observed dosing, practitioner training, practitioner registration, physician-only prescribing and dispensing. Pharmacist dispensing directly to women, and nurse-practitioner prescribing are now allowed in Canada.
Conclusions: This study identified and mitigated health policy, system and service barriers to mifepristone abortion access, accelerating its implementation across Canada. The rapid uptake of our study findings into practice and policy demonstrate the impact of iKT on implementation/dissemination of new practices, and may facilitate increased access to equitable, safe, confidential abortion care closer to home.

FC-05

The provision of free-of-charge LARC methods and the risk of unintended pregnancy – a register based cohort study

Frida Gyllenberg[a], Anna But[a], Mika Gissler[b] and Oskari Heikinheimo[a]

[a]University of Helsinki, Helsinki, Finland; [b]National Institute of Health and Welfare, Helsinki, Finland

Objective: To study the effect of a public free-of-charge LARC programme as part of the primary healthcare services on the risk of unintended pregnancy.
Design and methods: In this prospective cohort study, we evaluate the risk of unintended pregnancy among women of different contraceptive status. All women in the city of Vantaa, Southern Finland, have been entitled to their first LARC method free-of-charge at public family planning clinics since 2013. The cohort consisted of all non-sterilised, non-pregnant women aged 15–44 living in Vantaa during 2013–2014, and the outcome was unintended pregnancy during 2013–2016. As information on unintended pregnancy is scarce, we measured induced abortions and the proportion of pregnancies ending in abortion as proxies for unintended pregnancy. We compared the following contraceptive statuses: (i) women entitled to a free-of-charge LARC method, but not visiting a family planning clinic, (ii) women entitled to a free-of-charge LARC method, visiting a family planning clinic but chose a short-acting method, (iii) women who obtained a LARC method at no-cost at a public family planning clinic.
Results: During 2013–2014, there were 41,525 women entitled to a LARC method that did not visit a public family planning clinic. Of them, 8721 became pregnant (21.0%) and 1718 women had an abortion (19.6% of the pregnancies, 4.1% of all women, incidence rate 11.9/1000 person years). Of the 8347 women who visited a public family planning clinic, 985 women chose a LARC method free-of-charge and among these there were 91 pregnancies (9.2%) and 11 abortions (12.1% of all pregnancies, 1.1% of all women, incidence rate 3.63/1000 person-years). The corresponding numbers among the 7362 women not choosing a LARC method were 1098 pregnancies (14.9%) and 235 abortions (21.4% of all pregnancies, 3.2% of all women). In our preliminary, unadjusted Poisson regression analysis of abortions among LARC-users vs. non-LARC-users, we found that the relative risk for an induced abortion was 0.43 (95% CI = 0.21, 0.79, p=.005).
Conclusions: The abortion rate among FPC visitors was twice as high as in the general population. Initiation of a LARC method was effective in reducing the pregnancy and abortion rate among women choosing it. Women seeking counseling on contraception are sexually active and at great risk of unintended pregnancy. Providing the most effective reversible contraception is an efficient means to meet the need of family planning.

FC-06

Factors influencing the sexual and reproductive health of Muslim women - a systematic review

Noura Alomair[a], Samah Alageel[b], Nathan Davies[a] and Julia Bailey[a]

[a]UCL, London, United Kingdom; [b]King's College London, London, United Kingdom

Background: In Islamic societies, issues related to sexual and reproductive health (SRH) are rarely discussed and considered to be sensitive subjects. As a result, poor SRH knowledge and practices can be observed among the majority of Muslims in all parts of the world.
Objectives:

- Explore factors affecting SRH among Muslim women;
- Explore barriers and facilitators to contraception and family planning services;
- Explore barriers and facilitators to accessing SRH services and advice;
- Explore barriers and facilitators to sexually transmitted infections (STIs) prevention, diagnosis, and treatment.

Methods: A systematic review was conducted on seven electronic databases. Included were studies focusing on SRH of Muslim women in reproductive age worldwide in three main areas: contraception, access to SRH services and SITs. A narrative synthesis approach was used to synthesise the data.
Results: Seventy-four studies were included, both qualitative and quantitative. Barriers to contraception use among Muslim included poor reproductive knowledge, insufficient knowledge about contraception, misconceptions and negative attitudes. Family and community appeared to have a significant impact on women's contraceptive use and access to SRH services. Many women cited husbands' refusal as the main barrier to contraception use. Religious and cultural beliefs also acted as barriers to contraception use and accessing SRH services. Fear of stigmatisation among unmarried women prevented them from seeking SRH services and advice when needed. Having services labelled as public or general services instead of 'reproductive' or 'sexual' was expressed by single women as a facilitator to seeking SRH services. Poor knowledge about STIs transmission, prevention and treatment was consistently observed among Muslim women. In addition, negative attitudes towards HIV infected individuals were found, these negative attitudes were highly influenced by poor knowledge and misconceptions.
Conclusion: The findings reveal that there are multiple levels of factors that influence Muslim women's SRH. Many women have poor SRH knowledge, which in some cases acted as a barrier to accessing contraception and other SRH services. Negative attitudes towards contraception influenced women's uptake and use; these attitudes appeared to be affected by wider socio-cultural and religious factors. SRH services were perceived to be associated with sexual activity. As a result, unmarried women faced greater difficulties accessing SRH services. Increasing awareness would empower Muslim women to take charge of their own reproductive health choices. Therefore, a culturally and religiously sensitive SRH education is essential to improve SRH knowledge and practices among Muslim women.