Intrauterine insemination: current status

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Intrauterine insemination (IUI) is one of the oldest infertility treatment methods. The rational for the use of IUI is deposition of sperm as close as possible to fallopian tube and the oocyte, and to increase the chance of fertility. Intrauterine insemination is regarded as an intermediate step before more sophisticated assisted reproductive techniques.

Most common indications for IUI traditionally included: abnormal semen analysis, ejaculatory abnormalities, hostile cervical mucus and unexplained infertility. However, current guidelines do not implement intrauterine insemination for unexplained infertility, mild endometriosis or mild male factor infertility. Other indications for intrauterine insemination include couples with male partners with spinal cord injuries and HIV serodiscordant couples. Some practitioners advocate conversion to IUI cycle in cases of suboptimal ovarian response in IVF cycles.

The overall success rate of intrauterine insemination remains controversial and ranges between 10-15% of clinical pregnancies per cycle. Female age is a major determinant of the success of IUI. Other prognostic factors include: duration of infertility, semen parameters, ovarian stimulation protocols, timing of the insemination, number of preovulatory follicles, endometrial thickness, oestradiol levels, bed rest and luteal phase support.

Despite the success rate controversies, and the fact that international guidelines limit the list of possible indications for IUI, the method still represents safe and cost-effective treatment option in some regions.