Study design, size, duration: therefore to base interventions on diagnostic rationale wherever possible.

Additional empirical interventions are often blindly used. This approach may apparently responsive and anatomically normal endometrium. To deal with bryo implantation after the transfer of three good quality blastocysts on an What is known already: assessment might not be appropriate in every situation.

Summary answer: Endometrial investigations can be beneficial for patients with RIF. However, waiting for three previous failures before instituting as-

What is known already: The definition of unexplained recurrent implantation failure (RIF) continues to be debated. This usually implies a lack of embryo implantation after the transfer of three good quality blastocysts on an apparently responsive and anatomically normal endometrium. To deal with this frustrating and distressing situation for both the patient and the clinician, additional empirical interventions are often blindly used. This approach may exacerbate rather than ameliorate any underlying aetiology. There is a need therefore to base interventions on diagnostic rationale wherever possible.

Study question: Should we always define recurrent implantation failure (RIF) after three unsuccessful transfers and only then start investigating the endometrium? Lessons from three years’ experience in a dedicated unit

Wider implications of the findings: Wider implications of the findings: With the subsequent personalised single embryo transfer, an implantation rate of 58% was observed. The ongoing pregnancy rate at 12 weeks

Participants/materials, setting, methods: Blood sampling for serum pro-

Main results and the role of chance: The patients referred had an average of 4.3 previous good quality blastocysts transferred in the past. 58% of the referred patients had used their own eggs, including 49% after conventional IVF or ICSI, and 9% after using PGT-A. 42% of the referred patients had used don-

Limitations, reasons for caution: While confirmatory prospective controlled studies are required, these data indicate that more targeted rather than blind usage of simple known therapeutics could be beneficial for patients experiencing RIF. The clinical context these referred was highly variable, in-

Wider implications of the findings: Given the higher implantation rates to be expected in some groups, waiting for at least three embryos to fail before investigating the endometrium may be inappropriate and underlie the relatively high miscarriage rate observed. The investigation of implantation failure should be driven by context rather than arbitrary definition.

Trial registration number: Not Applicable