

## Recurrent Pregnancy Loss

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### Definitions

Recurrent pregnancy loss (RPL) — aka recurrent spontaneous abortion (RSA) (or miscarriage) — refers to the occurrence of two or more losses of consecutive pregnancies prior to the 20th week of gestation (excluding ectopic, molar or biochemical pregnancies). The loss may be primary (in women has never carried to viability) or secondary (after a previous live birth). Causative factors include anatomic, chromosomal, hormonal or immunological abnormalities, as well as thrombolytic disorders, or underlying factors of unknown etiology.

### Guideline

Members are eligible for coverage of the evaluation and treatment of RPL ( $\geq 2$  lost spontaneous miscarriages in  $< 20$  weeks) per the table below.

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| Medically necessary diagnostic tests/procedures | <ol style="list-style-type: none"> <li>1. Assessment of thyroid function:           <ul style="list-style-type: none"> <li>▪ Thyroid antibodies</li> <li>▪ Thyroid stimulating hormone (TSH)</li> </ul> </li> <li>2. Detection of anatomic abnormalities (e.g., ovaries, uterus, uterine cavity):           <ul style="list-style-type: none"> <li>▪ Hysteroscopy/hysterosalpingography</li> <li>▪ Sonohysteroscopy/sonohysterography</li> <li>▪ Pelvic ultrasound</li> </ul> </li> <li>3. Detection of chromosomal abnormalities:           <ul style="list-style-type: none"> <li>▪ Karyotype serology</li> <li>▪ Karyotype of abortus tissue (when <math>\geq 2</math> RPL occurrences)</li> <li>▪ Molecular cytogenetic probe (e.g., FISH) DNA analysis when karyotyping above is not possible (e.g., poor culture, insufficient tissue sample)</li> </ul> </li> <li>4. Detection of antiphospholipid syndrome (APSS) using standard assays:</li> </ol> |
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| Medically necessary treatment | <ul style="list-style-type: none"> <li>▪ Anticardiolipin antibody detection (IgG, IgM),</li> <li>▪ Anti-β2-glycoprotein I (IgG or IgM) antibodies</li> <li>▪ Lupus anticoagulant (LA) antibodies</li> </ul> |
|                               | <ol style="list-style-type: none"> <li>5. Prenatal genetic diagnosis: <ul style="list-style-type: none"> <li>▪ Couples in which 1 partner has a balanced translocation or inversion</li> </ul> </li> </ol>  |

  

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| Medically necessary treatment | 1. Low-dose heparin and aspirin for antiphospholipid syndrome  |
|                               | 2. Antenatal transvaginal cervical cerclage  |
|                               | 3. Antenatal transabdominal cervical cerclage (if prior transvaginal cerclage is contraindicated or previously failed) |
|                               | 4. Surgical correction of structural uterine abnormalities   |

### Limitations/Exclusions

A. The following evaluative tests are not considered medically necessary for RPL, as clinical utility has not been established:

1. Angiotensin converting enzyme (ACE) and plasminogen activator inhibitor-1 (PAI-1) gene polymorphisms testing
2. Antibodies to phosphatidylserine, phosphatidylethanolamine or phospholipids (except anti-cardiolipin and lupus anticoagulant, as depicted in table above)
3. Cytokine polymorphisms analysis (Th1/Th2 intra-cellular cytokine ratio)
4. Embryo toxicity assay (ETA)
5. Genetic association studies of inflammatory cytokine polymorphisms
6. Inter-α trypsin inhibitor-heavy chain 4 (ITI-H4) (as a biomarker for recurrent pregnancy loss)
7. Maternal antiparental antibodies
8. Methylenetetrahydrofolate reductase (MTHFR) testing
9. Molecular cytogenetic testing (serological or on products of conception) using comparative genomic hybridization (CGH)
10. Molecular genetic testing for highly skewed X-inactivation patterns
11. Natural killer (NK) testing to determinat circulating-cell % or status of NK-like cells through luteal phase biopsy
12. Parental human leukocyte antigen (HLA) status
13. Pre-implantation genetic screening (PGS) (See [Infertility Services](#) to determine whether members pursuing assisted reproductive technology services meet PGS criteria)
14. Reproductive immunophenotype (CD3+, CD4+, CD5+, CD8+, CD16+, CD19+, CD56+)
15. Routine preimplantation embryo aneuploidy screening
16. Tests for embryotoxic factor
17. Tests for inherited thrombophilic disorders: factor V Leiden (genetic testing), prothrombin G20210A mutation, serum homocysteine, and deficiencies of the anticoagulants protein C, protein S, and antithrombin II
18. Tests for maternal antileukocytic antibodies to paternal leukocytes
19. Tests for serum “blocking factor”
20. X-chromosome inactivation study

B. The following medical procedures are not considered medically necessary for the prevention/treatment of RPL due to insufficient evidence of therapeutic value:

1. Donor leukocytes/ infusion
2. Immunoglobulin (IVIg) therapy
3. Intralipid therapy
4. Low-molecular-weight heparin (unless thrombophilic disorder is present and member is undergoing active treatment for venous thromboembolism)
5. Paternal leukocyte immunization
6. Trophoblast membrane infusion

### Revision History

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|---------------|---|
| Mar. 11, 2022 | Removed tissue analysis for luteal phase defect as a medically necessary procedure                                  |
| Mar. 12, 2021 | Updated recurrent pregnancy loss definition — changed “three “or more consecutive pregnancy losses to “two” or more |

### Applicable Procedure Codes

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| 58100 | Endometrial sampling (biopsy) with or without endocervical sampling (biopsy), without cervical dilation, any method (separate procedure)   |
| 58340 | Catheterization and introduction of saline or contrast material for saline infusion sonohysterography (SIS) or hysterosalpingography   |
| 58555 | Hysteroscopy, diagnostic (separate procedure)  |
| 58558 | Hysteroscopy, surgical; with sampling (biopsy) of endometrium and/or polypectomy, with or without D & C  |
| 58559 | Hysteroscopy, surgical; with lysis of intrauterine adhesions (any method)  |
| 58560 | Hysteroscopy, surgical; with division or resection of intrauterine septum (any method)   |
| 58561 | Hysteroscopy, surgical; with removal of leiomyomata  |
| 58562 | Hysteroscopy, surgical; with removal of impacted foreign body  |
| 58563 | Hysteroscopy, surgical; with endometrial ablation (eg, endometrial resection, electrosurgical ablation, thermoablation)  |
| 58565 | Hysteroscopy, surgical; with bilateral fallopian tube cannulation to induce occlusion by placement of permanent implants   |
| 59320 | Cerclage of cervix, during pregnancy; vaginal  |
| 59325 | Cerclage of cervix, during pregnancy; abdominal  |
| 74740 | Hysterosalpingography, radiological supervision and interpretation   |
| 76831 | Saline infusion sonohysterography (SIS), including color flow Doppler, when performed  |
| 76856 | Ultrasound, pelvic (nonobstetric), real time with image documentation; complete  |
| 81403 | Molecular pathology procedure, Level 4 (eg, analysis of single exon by DNA sequence analysis, analysis of 10 amplicons using multiplex PCR in 2 or more independent reactions, mutation scanning or duplication/deletion variants of 2-5 exons)  |
| 81404 | Molecular pathology procedure, Level 5 (eg, analysis of 2-5 exons by DNA sequence analysis, mutation scanning or duplication/ deletion variants of 6-10 exons, or characterization of a dynamic mutation disorder/triplet repeat by Southern blot analysis)  |
| 81405 | Molecular pathology procedure, Level 6 (eg, analysis of 6-10 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 11-25 exons, regionally targeted cytogenomic array analysis) CPOX (coproporphyrinogen oxidase) (eg, hereditary coproporphyruria), full gene sequence CTSC (chymotrypsin C) (eg, hereditary pancreatitis), full gene sequence PKLR (pyruvate kinase, liver and RBC) (eg, pyruvate kinase deficiency), full gene sequence |

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| 81406 | Molecular pathology procedure, Level 7 (eg, analysis of 11-25 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of 26-50 exons, cytogenomic array analysis for neoplasia) ANOS1 (anosmin-1) (eg, Kallmann syndrome 1), full gene sequence HMBS (hydroxymethylbilane synthase) (eg, acute intermittent porphyria), full gene sequence PPOX (protoporphyrinogen oxidase) (eg, variegate porphyria), full gene sequence |
| 81407 | Molecular pathology procedure, Level 8 (eg, analysis of 26-50 exons by DNA sequence analysis, mutation scanning or duplication/deletion variants of >50 exons, sequence analysis of multiple genes on one platform)   |
| 81408 | Molecular pathology procedure, Level 9 (eg, analysis of >50 exons in a single gene by DNA sequence analysis)  |
| 84443 | Thyroid stimulating hormone (TSH)   |
| 85307 | Activated Protein C (APC) resistance assay  |
| 85335 | Factor inhibitor test   |
| 85337 | Thrombomodulin  |
| 85705 | Thromboplastin inhibition, tissue   |
| 86146 | Beta 2 Glycoprotein I antibody, each[IgG or IgM]  |
| 86147 | Cardiolipin (phospholipid) antibody, each Ig class  |
| 86800 | Thyroglobulin antibody  |
| 88230 | Tissue culture for non-neoplastic disorders; lymphocyte   |
| 88233 | Tissue culture for non-neoplastic disorders; skin or other solid tissue biopsy  |
| 88235 | Tissue culture for non-neoplastic disorders; amniotic fluid or chorionic villus cells   |
| 88237 | Tissue culture for neoplastic disorders; bone marrow, blood cells   |
| 88239 | Tissue culture for neoplastic disorders; solid tumor  |
| 88245 | Chromosome analysis for breakage syndromes; baseline Sister Chromatid Exchange (SCE), 20-25 cells   |
| 88248 | Chromosome analysis for breakage syndromes; baseline breakage, score 50-100 cells, count 20 cells, 2 karyotypes (eg, for ataxia telangiectasia, Fanconi anemia, fragile X)  |
| 88249 | Chromosome analysis for breakage syndromes; score 100 cells, clastogen stress (eg, diepoxybutane, mitomycin C, ionizing radiation, UV radiation)  |
| 88261 | Chromosome analysis; count 5 cells, 1 karyotype, with banding   |
| 88262 | Chromosome analysis; count 15-20 cells, 2 karyotypes, with banding  |
| 88263 | Chromosome analysis; count 45 cells for mosaicism, 2 karyotypes, with banding   |
| 88264 | Chromosome analysis; analyze 20-25 cells  |
| 88267 | Chromosome analysis, amniotic fluid or chorionic villus, count 15 cells, 1 karyotype, with banding  |
| 88269 | Chromosome analysis, in situ for amniotic fluid cells, count cells from 6-12 colonies, 1 karyotype, with banding  |
| 88271 | Molecular cytogenetics; DNA probe, each (eg, FISH)  |
| 88272 | Molecular cytogenetics; chromosomal in situ hybridization, analyze 3-5 cells (eg, for derivatives and markers)  |
| 88273 | Molecular cytogenetics; chromosomal in situ hybridization, analyze 10-30 cells (eg, for microdeletions)   |
| 88274 | Molecular cytogenetics; interphase in situ hybridization, analyze 25-99 cells   |
| 88275 | Molecular cytogenetics; interphase in situ hybridization, analyze 100-300 cells   |
| 88280 | Chromosome analysis; additional karyotypes, each study  |
| 88283 | Chromosome analysis; additional specialized banding technique (eg, NOR, C-banding)  |
| 88285 | Chromosome analysis; additional cells counted, each study   |

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| 88289 | Chromosome analysis; additional high resolution study  |
| 88291 | Cytogenetics and molecular cytogenetics, interpretation and report [not covered for preimplantation genetic screening] |
| 89325 | Sperm antibodies   |
| J1644 | Injection, Heparin sodium, per 1000 units  |

### Applicable ICD-10 Diagnosis Codes

|         |   |
|---------|---|
| N96     | Recurrent pregnancy loss  |
| O03.9   | Complete or unspecified spontaneous abortion without complication                                 |
| O09.291 | Supervision of pregnancy with other poor reproductive or obstetric history, first trimester       |
| O09.292 | Supervision of pregnancy with other poor reproductive or obstetric history, second trimester      |
| O09.293 | Supervision of pregnancy with other poor reproductive or obstetric history, third trimester       |
| O09.299 | Supervision of pregnancy with other poor reproductive or obstetric history, unspecified trimester |
| O26.20  | Pregnancy care for patient with recurrent pregnancy loss, unspecified trimester                   |
| Z31.441 | Encounter for testing of male partner of patient with recurrent pregnancy loss                    |

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