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**Reporting Title:** QUAD SCRIN (2nd Tri) Maternal, S  
**Performing Location:** Rochester**Necessary Information:**

In order to provide the best results, either answer the order entry questions or provide the required information using the Second Trimester Maternal Screening Alpha-Fetoprotein / Quad Screen Patient Information (T595).

**Specimen Requirements:**

Container/Tube:

Preferred: Serum gel

Acceptable: Red top

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions:

1. Do not collect specimen after amniocentesis as this could affect results.
2. Centrifuge and aliquot serum into plastic vial within 2 hours of collection

Additional Information:

1. For an assessment that includes neural tube defect results, gestational age must be between 15 weeks, 0 days and 22 weeks, 6 days.
2. Assessments for trisomy 21 (Down syndrome) and trisomy 18 (Edwards syndrome) only are available between 14 weeks, 0 days and 22 weeks, 6 days.
3. Initial or repeat testing is determined in the laboratory at the time of report and will be reported accordingly. To be considered a repeat test for the patient, the testing must be within the same pregnancy and trimester, with interpretable results for the same tests, and both tests are performed at Mayo Clinic.
4. Maternal Serum Screening patient education brochure (T522) is available upon request.

**Specimen Minimum Volume:**

0.75 mL

**Forms:**

Second Trimester Maternal Screening Alpha-Fetoprotein / Quad Screen Patient Information (T595) is required.

| Specimen Type | Temperature              | Time    | Special Container |
|---------------|--------------------------|---------|-------------------|
| Serum         | Refrigerated (preferred) | 7 days  |                   |
|               | Frozen                   | 90 days |                   |
|               | Ambient                  | 7 days  |                   |

## Ask at Order Entry (AOE) Questions:

| Test ID | Question ID | Description  | Type        | Reportable |
|---------|-------------|--|-------------|------------|
| QUAD1   | DRPHN       | Physician Phone Number   | Plain Text  | Yes        |
| QUAD1   | ESTDD       | Patient's Estimated Due Date (EDD)   | Plain Text  | No         |
| QUAD1   | MTHOD       | Method Used to Determine EDD:<br>• Ultrasound<br>• LMP   | Answer List | No         |
| QUAD1   | MTWT        | Patient Weight   | Plain Text  | No         |
| QUAD1   | LBKGS       | Units (lbs or kg):<br>• lbs<br>• kg  | Answer List | No         |
| QUAD1   | IDD         | Insulin dependent diabetes:<br>• None<br>• Diabetic  | Answer List | Yes        |
| QUAD1   | RACE1       | Patients race:<br>• Black<br>• non-Black   | Answer List | Yes        |
| QUAD1   | MULTF       | Number of Fetuses:<br>• 1<br>• 2<br>• 3 or more  | Answer List | Yes        |
| QUAD1   | CHOR_       | Number of Chorions:<br>• Monochorionic<br>• Dichorionic<br>• Unknown<br>• Not applicable         | Answer List | Yes        |
| QUAD1   | IVFP        | IVF pregnancy:<br>• No<br>• Yes  | Answer List | Yes        |
| QUAD1   | EGGDR       | IVF Egg Donor Date of Birth  | Plain Text  | No         |
| QUAD1   | EGGFR       | IVF Egg or Embryo Freeze Date  | Plain Text  | No         |
| QUAD1   | PRHIS       | Prev Down (T21) / Trisomy Pregnancy:<br>• No<br>• Yes<br>• Unknown<br>• If MAFP - Not applicable | Answer List | Yes        |
| QUAD1   | PRNTD       | Prev Pregnancy w/ Neural Tube Defect:<br>• No<br>• Yes<br>• Unknown                              | Answer List | Yes        |

| Test ID | Question ID | Description  | Type        | Reportable |
|---------|-------------|--|-------------|------------|
| QUAD1   | PTNTD       | Patient or father of baby has a NTD:<br>• No<br>• Yes<br>• Unknown | Answer List | Yes        |
| QUAD1   | SMKNG       | Current Cigarette smoking status:<br>• Non-smoker<br>• Smoker      | Answer List | Yes        |
| QUAD1   | INTL        | Initial or repeat testing:<br>• Initial<br>• Repeat                | Answer List | Yes        |

## Result Codes:

| Result ID | Reporting Name   | Type         | Unit  | LOINC®  |
|-----------|--|--------------|-------|---------|
| 7058      | Recalculated Maternal Serum Screen<br><b>Also used by tests: MAFP1</b> | Alphanumeric |       | 32399-8 |
| 113146    | Results Summary<br><b>Also used by tests: MAFP1</b>                    | Alphanumeric |       | 32399-8 |
| 10334     | Down syndrome screen risk estimate                                     | Alphanumeric |       | 43995-0 |
| 10335     | Down syndrome maternal age risk  | Alphanumeric |       | 49090-4 |
| 10337     | Trisomy 18 screen risk estimate  | Alphanumeric |       | 43994-3 |
| 113147    | Neural tube defect risk estimate<br><b>Also used by tests: MAFP1</b>   | Alphanumeric |       | 48803-1 |
| 10351     | AFP<br><b>Also used by tests: MAFP1</b>                                | Alphanumeric |       | 83073-7 |
| 113148    | AFP MoM<br><b>Also used by tests: MAFP1</b>                            | Numeric      | MoM   | 23811-3 |
| 601921    | AFP MoM (14,0-14,6)  | Numeric      | MoM   | 23811-3 |
| 10352     | uE3  | Alphanumeric |       | 2250-9  |
| 113149    | uE3 MoM  | Numeric      | MoM   | 21264-7 |
| 10353     | hCG, TOTAL   | Alphanumeric | IU/mL | 83086-9 |
| 113150    | hCG, TOTAL MoM   | Numeric      | MoM   | 23841-0 |
| 113151    | INHIBIN MoM  | Numeric      | MoM   | 36904-1 |

| Result ID | Reporting Name   | Type         | Unit | LOINC®  |
|-----------|--|--------------|------|---------|
| 10354     | INHIBIN  | Alphanumeric |      | 2478-6  |
| 10356     | INTERPRETATION<br><b>Also used by tests: MAFP1</b>                   | Alphanumeric |      | 49092-0 |
| 10357     | RECOMMENDED FOLLOW UP<br><b>Also used by tests: MAFP1</b>            | Alphanumeric |      | 80615-8 |
| 10248     | Additional comments<br><b>Also used by tests: MAFP1</b>              | Alphanumeric |      | 48767-8 |
| 3009      | Specimen collection date<br><b>Also used by tests: MAFP1</b>         | Alphanumeric |      | 33882-2 |
| 7823      | Maternal date of birth<br><b>Also used by tests: MAFP1</b>           | Alphanumeric |      | 21112-8 |
| 7834      | Calculated age at EDD<br><b>Also used by tests: MAFP1</b>            | Alphanumeric |      | 43993-5 |
| 26717     | Maternal Weight<br><b>Also used by tests: MAFP1</b>                  | Numeric      | lbs  | 29463-7 |
| 26718     | Maternal Weight<br><b>Also used by tests: MAFP1</b>                  | Alphanumeric | kg   | 29463-7 |
| IDD       | Insulin dependent diabetes<br><b>Also used by tests: MAFP1</b>       | Alphanumeric |      | 44877-9 |
| RACE1     | Patient race<br><b>Also used by tests: MAFP1</b>                     | Alphanumeric |      | 21484-1 |
| SMKNG     | Current cigarette smoking status<br><b>Also used by tests: MAFP1</b> | Alphanumeric |      | 64234-8 |
| 10054     | EDD by U/S scan<br><b>Also used by tests: MAFP1</b>                  | Alphanumeric |      | 11781-2 |
| 7203      | GA on collection by U/S scan<br><b>Also used by tests: MAFP1</b>     | Alphanumeric | wk,d | 11888-5 |
| 7753      | EDD by LMP<br><b>Also used by tests: MAFP1</b>                       | Alphanumeric |      | 11779-6 |
| 7204      | GA on collection by dates<br><b>Also used by tests: MAFP1</b>        | Alphanumeric | wk,d | 11885-1 |

| Result ID | Reporting Name   | Type         | Unit | LOINC®  |
|-----------|--|--------------|------|---------|
| 7830      | GA used in risk estimate<br><b>Also used by tests: MAFP1</b>             | Alphanumeric |      | 21299-3 |
| MULTF     | Number of Fetuses<br><b>Also used by tests: MAFP1</b>                    | Alphanumeric |      | 55281-0 |
| CHOR_     | Number of Chorions<br><b>Also used by tests: MAFP1</b>                   | Alphanumeric |      | 92568-5 |
| IVFP      | IVF pregnancy<br><b>Also used by tests: MAFP1</b>                        | Alphanumeric |      | 47224-1 |
| PRHIS     | Prev Down (T21) / Trisomy Pregnancy                                      | Alphanumeric |      | 53826-4 |
| PRNTD     | Prev Pregnancy w/ Neural Tube Defect<br><b>Also used by tests: MAFP1</b> | Alphanumeric |      | 53827-2 |
| PTNTD     | Patient or father of baby has a NTD<br><b>Also used by tests: MAFP1</b>  | Alphanumeric |      | 53827-2 |
| INTL      | Initial or repeat testing<br><b>Also used by tests: MAFP1</b>            | Alphanumeric |      | 77202-0 |
| DRPHN     | Physician Phone Number<br><b>Also used by tests: MAFP1</b>               | Alphanumeric |      | 68340-9 |
| 10358     | GENERAL TEST INFORMATION<br><b>Also used by tests: MAFP1, 1STT1</b>      | Alphanumeric |      | 62364-5 |

LOINC and CPT codes are provided by the performing laboratory.

## Supplemental Report:

No

## CPT Code Information:

81511

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**Reference Values:****NEURAL TUBE DEFECTS:**

An alpha-fetoprotein (AFP) multiple of the median (MoM)  $<2.5$  is reported as screen negative.

AFP MoM  $\geq 2.5$  (singleton and twin pregnancies) are reported as screen positive.

**DOWN SYNDROME:**

Calculated screen risks  $<1/270$  are reported as screen negative, risks  $\geq 1/270$  are reported as screen positive.

**TRISOMY 18:**

Calculated screen risks  $<1/100$  are reported as screen negative, risks  $\geq 1/100$  are reported as screen positive.

An interpretive report will be provided.