

## PATH-2 Placental Examination - Microscopic

Form PATH-2 provided precise, detailed information about the microscopic appearance of the placenta and how the placenta might relate to the outcome of the pregnancy for both mother and infant. The form was implemented into the study in November 1959; it was not revised. Data from PATH-2 were coded onto card 1202 of the master file (Table PATH-2.1).

TABLE PATH-2.1 Cards and Data Records by Revision for Form PATH-2

CARD NAME	CARD NUMBER	REV. NO.	NUMBER RECORDS
PATH-2: Cord, Membranes, Decidua, Terminal VIII	1202	2	49,799
			<hr/>
			49,799
	total for form		49,799

Data Items Referencing Form PATH-2, Placental Exam - Micros.

DATA ITEM	ITEM	CARD	FROM	TO	DATA ITEM NAME
1	2	NUM			
130.....	1202	1		5	Cord number (sequence, form type, form number, revision number)
131.....	1202	6		14	MINDB case number
132.PATH-2	1202	15		16	Pathology; microscopic, examination by
133.PATH-2	1202	17		18	Pathology; microscopic, date (mo)
134.PATH-2	1202	19		20	Pathology; microscopic, date (day)
135.PATH-2	1202	21		22	Pathology; microscopic, date (yr)
136.PATH-2	1202	23		23	Pathology; microscopic, designation of placenta, plurality
137.PATH-2	1202	24		24	Pathology; microscopic, amnion available for examination
138.PATH-2	1202	25		25	Pathology; microscopic; cord, neutrophilic infiltration, umbilical vein
139.PATH-2	1202	26		26	Pathology; microscopic; cord, neutrophilic infiltration, umbilical artery
140.PATH-2	1202	27		27	Pathology; microscopic; cord, neutrophilic infiltration, cord substance
141.PATH-2	1202	28		28	Pathology; microscopic; cord, thrombosis of vessels
142.PATH-2	1202	29		29	Pathology; microscopic; cord, number of umbilical arteries
143.PATH-2	1202	30		30	Pathology; microscopic; membranes, epithelium of amnion, necrosis
144.PATH-2	1202	31		31	Pathology; microscopic; membranes, epithelium of amnion, squamous metaplasia
145.PATH-2	1202	32		32	Pathology; microscopic; membranes, epithelium of amnion, amnion nodosum
146.PATH-2	1202	33		33	Pathology; microscopic; membranes, epithelium of amnion, bacterial colonies
147.PATH-2	1202	34		34	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, amnion
148.PATH-2	1202	35		35	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, chorion
149.PATH-2	1202	36		36	Pathology; microscopic; membranes, neutrophilic infiltration, placental surface, amnion
150.PATH-2	1202	37		37	Pathology; microscopic; membranes, neutrophilic infiltration, placental surface, chorion
151.PATH-2	1202	38		38	Pathology; microscopic; membranes, neutrophilic infiltration, fetal surface vessels
152.PATH-2	1202	39		39	Pathology; microscopic; membranes, fetal surface vascular changes, other
153.PATH-2	1202	40		41	Pathology; microscopic; membranes, macrophages in amnion or chorion
154.PATH-2	1202	42		43	Pathology; microscopic; membranes, macrophages in decidua
155.PATH-2	1202	44		44	Pathology; microscopic; membranes, class. of dividing membranes of twin placentas
156.PATH-2	1202	45		45	Pathology; microscopic; decidua vessels, thrombosis
157.PATH-2	1202	46		46	Pathology; microscopic; decidua vessels, fibrinoid
158.PATH-2	1202	47		47	Pathology; microscopic; decidua vessels, etherome

Data Items Referencing Form PATH-2, Placental Exam - Micros.

DATA ITEM ID	ITEM ID	FORM	CAH# NUM	FROM ID	DATA ITEM NAME
159.PATH-2	36		1702	48	Pathology; microscopic; decidua, neutrophilic infiltration in
160.PATH-2	37		1702	49	Pathology; microscopic; decidua, neutrophilic infiltration in
161.PATH-2	38		1202	50	Pathology; microscopic; decidua, neutrophilic infiltration in
162.PATH-2	40		1702	51	Pathology; microscopic; decidua, neutrophilic infiltration at margin
163.PATH-2	41		1702	52	Pathology; microscopic; decidua, neutrophilic infiltration in capsularis
164.PATH-2	42		1702	53	Pathology; microscopic; decidua, neutrophilic infiltration in basalis
165.PATH-2	44		1202	54	Pathology; microscopic; decidua, lymphocytic infiltration at margin
166.PATH-2	45		1702	55	Pathology; microscopic; decidua, lymphocytic infiltration in capsularis
167.PATH-2	46		1202	56	Pathology; microscopic; decidua, lymphocytic infiltration in basalis
168.PATH-2	48		1702	57	Pathology; microscopic; decidua, cytotrophoblast of columns, fibrin deposition
169.PATH-2	49		1702	58	Pathology; microscopic; decidua, cytotrophoblast of columns, cystic change
170.PATH-2	50		1702	59	Pathology; microscopic; decidua, syncytium, nuclear clumping
171.PATH-2	52		1202	60	Pathology; microscopic; terminal villi, Langhans' layer
172.PATH-2	53		1702	61	Pathology; microscopic; terminal villi, Hofbauer cells
173.PATH-2	54		1202	62	Pathology; microscopic; terminal villi, stromal fibrosis
174.PATH-2	55		1702	63	Pathology; microscopic; terminal villi, pathological edema
175.PATH-2	56		1202	64	Pathology; microscopic; terminal villi, micro infarcts
176.PATH-2	57		1702	65	Pathology; microscopic; terminal villi, nucleated RBC in fetal circulation
177.PATH-2	58		1202	66	Pathology; microscopic; terminal villi, melanin
178.PATH-2	61-62		1202	68	Pathology; microscopic; intervillous space, thrombi and adjacent villous infarction
179.PATH-2	63		1202	69	Pathology; microscopic; intervillous space, marginal sinus thrombi
180.PATH-2	64		1202	70	Pathology; microscopic; intervillous space, sickling; maternal blood
181.PATH-2	65		1702	71	Pathology; microscopic; intervillous space, apparent immaturity of placenta
182.PATH-2	66		1202	72	Pathology; microscopic; exam done with knowledge of case
183.PATH-2	67		1202	73	Pathology; microscopic; other abnormalities present
184.....			1702	74	Blank
5368.....VAR	12		530	530	Pathology; cord, arteries, number
5370.....VAR	27		532	533	Pathology; microscopic; membranes, macrophages in amnion or chorion
5371.....VAR	27		534	534	Pathology; microscopic; membranes, macrophages in amnion or chorion (yes, no, unknown)
5372.....VAR	28		535	536	Pathology; microscopic; membranes, macrophages in decidua
5373.....VAR			537	537	Pathology; microscopic; membranes, macrophages in decidua (yes, no, unknown)

Data Items Referencing Form PATH-2, Placental Exam - Micros.

DATA ITEM ID	IFM CH FORM	CARD NUM	FROM	TO	DATA ITEM NAME
5374.....VAR	20		538	538	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, amnion
5375.....VAR	20		539	539	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, amnion (yes, no, unknown)
5376.....VAR	22		540	540	Pathology; microscopic; membranes, neutrophilic infiltration, placental surface, amnion
5377.....VAR	22		541	541	Pathology; microscopic; membranes, neutrophilic infiltration, placental surface, amnion (yes, no - unknown)
5378.....VAR	21		542	542	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, chorion
5379.....VAR	21		543	543	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, chorion (yes, no, unknown)
5380.....VAR	8		544	544	Pathology; microscopic; cord, neutrophilic infiltration, umbilical vein
5381.....VAR	8		545	545	Pathology; microscopic; cord, neutrophilic infiltration, umbilical vein (yes, no, unknown)

## PLACENTAL EXAMINATION-MICROSCOPIC

INSTRUCTIONS: (1) For use when crown-rump length of fetus is 16.5 cm. or more (gestational age 28 weeks). (2) An entry is required for every item except those for twins only. (3) Describe all abnormalities in the space or bottom of sheet. (4) Examine at least 3 sections; cord, membrane roll, and placenta. (5) Use ball point pen.

2. MICROSCOPIC EXAMINATION BY:		3. DATE Mo. Day Year	
4. DESIGNATION OF PLACENTA DESCRIBED ON THIS FORM <input type="checkbox"/> Single Birth <input type="checkbox"/> Twin A <input type="checkbox"/> Twin B <input type="checkbox"/> Other (Identify below) <input type="checkbox"/> Mono Birth			5. WAS AMNION AVAILABLE FOR EXAMINATION <input type="checkbox"/> No <input type="checkbox"/> Yes
6. CORD			
7. NEUTROPHILIC INFILTRATION 8. Umbilical Vein <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked		9. Umbilical Artery <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked	
11. THROMBOSIS OF VESSELS <input type="checkbox"/> Not seen <input type="checkbox"/> Present (Describe)		12. NUMBER OF UMBILICAL ARTERIES <input type="checkbox"/> One <input type="checkbox"/> Two	
13. MEMBRANES			
14. EPITHELIUM OF AMNION 15. Necrosis <input type="checkbox"/> Not seen <input type="checkbox"/> Present		16. Secondary mesoplexis <input type="checkbox"/> Not seen <input type="checkbox"/> Present	
19. NEUTROPHILIC INFILTRATION OF: 20. Amnion of Membrane Roll <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked		21. Chorion of Membrane Roll <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked	
23. Chorion of Placental Surface <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked		24. Fetal Surface Vessels <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked	
18. Bacterial Colonies <input type="checkbox"/> Not seen <input type="checkbox"/> Present			
17. Amnion Nodules <input type="checkbox"/> Not seen <input type="checkbox"/> Present			
18. Bacterial Colonies <input type="checkbox"/> Not seen <input type="checkbox"/> Present			
15. OTHER FETAL SURFACE VASCULAR CHANGES <input type="checkbox"/> None <input type="checkbox"/> Thrombotic <input type="checkbox"/> Necrosis <input type="checkbox"/> Other (Describe)			
26. MACROPHAGES			
27. In Amnion or Chorion <input type="checkbox"/> Not seen <input type="checkbox"/> Present (containing no pigment) <input type="checkbox"/> Present (containing meconium) <input type="checkbox"/> Present (containing hemosiderin) <input type="checkbox"/> Present (containing unknown pigment)			
28. In Decidua <input type="checkbox"/> Not seen <input type="checkbox"/> Present (containing no pigment) <input type="checkbox"/> Present (containing meconium) <input type="checkbox"/> Present (containing hemosiderin) <input type="checkbox"/> Present (containing unknown pigment)			
29. TWIN PLACENTAS ONLY - CLASSIFY DIVIDING MEMBRANES <input type="checkbox"/> Monochorionic-Monoamniotic (No dividing membranes present) <input type="checkbox"/> Dichorionic-Dichorionic <input type="checkbox"/> Dichorionic-Monoamniotic <input type="checkbox"/> Unknown			
30. DECIDUA			
31. VESSELS (of intact, non-neurotic area of decidua) 32. Thrombosis <input type="checkbox"/> Not seen <input type="checkbox"/> Present <input type="checkbox"/> Unable to evaluate		33. Fibrioid <input type="checkbox"/> Not seen <input type="checkbox"/> Present <input type="checkbox"/> Unable to evaluate	
35. NECROSIS 36. At Margin <input type="checkbox"/> Not marked <input type="checkbox"/> Marked <input type="checkbox"/> Unable to evaluate		37. In Capsularis <input type="checkbox"/> Not marked <input type="checkbox"/> Marked <input type="checkbox"/> Unable to evaluate	
39. NEUTROPHILIC INFILTRATION 40. At Margin <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked		41. In Capsularis <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked	
43. LYMPHOCYTTIC INFILTRATION 44. At Margin <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked		45. In Capsularis <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked	
47. CYTOTROPHOBLAST OF COLUMNS 48. Fibrin Deposition <input type="checkbox"/> Average <input type="checkbox"/> Excessive		49. Cystic Change <input type="checkbox"/> Not seen <input type="checkbox"/> Present	
50. SYNCYTIUM-NUCLEAR CLUMPING <input type="checkbox"/> Normal (clumps on 30% of villi) <input type="checkbox"/> Less than normal for term placenta <input type="checkbox"/> Excessive for term placenta			
51. TERMINAL VILLI			
52. LANGHANS' LAYER <input type="checkbox"/> Absent <input type="checkbox"/> Present		53. HOPBAUER CELLS <input type="checkbox"/> Few <input type="checkbox"/> Many	
56. MICRO INFARCTS (as specified in manual) <input type="checkbox"/> Not seen <input type="checkbox"/> Present		54. STROMAL FIBROSIS <input type="checkbox"/> Not seen <input type="checkbox"/> Present (Describe)	
57. NUCLEATED RBC IN FETAL CIRCULATION <input type="checkbox"/> Not seen <input type="checkbox"/> Present		55. PATHOLOGICAL EDEMA <input type="checkbox"/> Not seen <input type="checkbox"/> Present (Describe)	
58. MELANIN <input type="checkbox"/> Not seen <input type="checkbox"/> Slight <input type="checkbox"/> Marked			

**PLACENTAL EXAMINATION—MICROSCOPIC**  
(Continued)

**68. INTERVILLOUS SPACE**

<b>61. INTERVILLOUS THROMBI</b> <input type="checkbox"/> Not seen <input type="checkbox"/> Present, RBC intact <input type="checkbox"/> Present, RBC hemolyzed 0 1 2		<b>62. IF THROMBI PRESENT</b> <input type="checkbox"/> No adjacent villous infarction seen <input type="checkbox"/> Adjacent villous infarction seen 0 1	
<b>63. MARGINAL SINUS THROMBI</b> <input type="checkbox"/> Not seen <input type="checkbox"/> Present, RBC intact <input type="checkbox"/> Present, RBC hemolyzed 0 1 2		<b>64. SICKLING (maternal blood)</b> <input type="checkbox"/> Not noted <input type="checkbox"/> Present 0 1	
<b>65. APPARENT MATURITY OF PLACENTA</b> <input type="checkbox"/> Under 26 weeks <input type="checkbox"/> 26-27 weeks <input type="checkbox"/> 28-36 weeks <input type="checkbox"/> 37 weeks or over 1 2 3 4			
<b>66. MICROSCOPIC EXAMINATION WAS DONE WITH KNOWLEDGE THAT:</b> <input type="checkbox"/> Clinical course or outcome for mother or baby was normal <input type="checkbox"/> Clinical course or outcome for mother or baby was abnormal <input type="checkbox"/> With no knowledge of the case 1 2 3			
<b>67. PRESENCE OF OTHER ABNORMALITIES</b> <input type="checkbox"/> No abnormalities other than those specified above <input type="checkbox"/> Abnormalities other than those specified above 0 1			
<b>68. DESCRIPTION OF ABNORMALITIES CHECKED AND OTHER PERTINENT FINDINGS. IDENTIFY EACH COMMENT BY THE CORRESPONDING ITEM NUMBER.</b>			

**69. FINAL DIAGNOSIS**

**70. DO NOT USE**

Form Item Numbers linked to Data Items on PATH-2, Placental Exam - Micros.

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM TO	DATA ITEM NAME
2	5373.....VAR	537	537	Pathology; microscopic; membranes, macrophages in decidua (yes, no, unknown)
3	132.PATH-2 1202	15	16	Pathology; microscopic, examination by
3	134.PATH-2 1202	19	20	Pathology; microscopic, date (day)
3	133.PATH-2 1202	17	18	Pathology; microscopic, date (no)
3	135.PATH-2 1202	21	22	Pathology; microscopic, date (yr)
4	136.PATH-2 1202	23	23	Pathology; microscopic, designation of placenta, plurality
5	137.PATH-2 1202	24	24	Pathology; microscopic, amnion available for examination
8	138.PATH-2 1202	25	25	Pathology; microscopic; cord, neutrophilic infiltration, umbilical vein
8	5380.....VAR	544	544	Pathology; microscopic; cord, neutrophilic infiltration, umbilical vein
8	5381.....VAR	545	545	Pathology; microscopic; cord, neutrophilic infiltration, umbilical vein (yes, no, unknown)
9	139.PATH-2 1202	26	26	Pathology; microscopic; cord, neutrophilic infiltration, umbilical artery
10	40.PATH-2 1202	27	27	Pathology; microscopic; cord, neutrophilic infiltration, cord substance
11	1.PATH-2 1202	28	28	Pathology; microscopic; cord, thrombosis of vessels
12	5308.....VAR	530	530	Pathology; cord, arteries, number
12	142.PATH-2 1202	29	29	Pathology; microscopic; cord, number of umbilical arteries
15	143.PATH-2 1202	30	30	Pathology; microscopic; membranes, epithelium of amnion, necrosis
16	144.PATH-2 1202	31	31	Pathology; microscopic; membranes, epithelium of amnion, squamous metaplasia
17	145.PATH-2 1202	32	32	Pathology; microscopic; membranes, epithelium of amnion, amnion nodosum
18	146.PATH-2 1202	33	33	Pathology; microscopic; membranes, epithelium of amnion, bacterial colonies
20	147.PATH-2 1202	34	34	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, amnion
20	5374.....VAR	538	538	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, amnion
20	5375.....VAR	539	539	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, amnion (yes, no, unknown)
21	5378.....VAR	542	542	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, chorion
21	148.PATH-2 1202	35	35	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, chorion
21	5379.....VAR	543	543	Pathology; microscopic; membranes, neutrophilic infiltration, membrane roll, chorion (yes, no, unknown)
22	5376.....VAR	540	540	Pathology; microscopic; membranes, neutrophilic infiltration, placental surface, amnion

Form Item Numbers linked to Data Items on PATH-2, Placental Exam - Micros.

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM	TO	DATA ITEM NAME
22	149.PATH-2	1202	36	36	Pathology: microscopic; membranes, neutrophilic infiltration, placental surface, amnion
22	5377....VAR		541	541	Pathology: microscopic; membranes, neutrophilic infiltration, placental surface, amnion (yes, no, unknown)
23	150.PATH-2	1202	37	37	Pathology: microscopic; membranes, neutrophilic infiltration, placental surface, chorion
24	151.PATH-2	1202	38	38	Pathology: microscopic; membranes, neutrophilic infiltration, fetal surface vessels
25	152.PATH-2	1202	39	39	Pathology: microscopic; membranes, fetal surface vascular changes, other
27	153.PATH-2	1202	40	41	Pathology: microscopic; membranes, macrophages in amnion or chorion
27	5370....VAR		532	533	Pathology: microscopic; membranes, macrophages in amnion or chorion
27	5371....VAR		534	534	Pathology: microscopic; membranes, macrophages in amnion or chorion (yes, no, unknown)
28	5372....VAR		535	536	Pathology: microscopic; membranes, macrophages in decidua
28	154.PATH-2	1202	42	43	Pathology: microscopic; membranes, macrophages in decidua
29	155.PATH-2	1202	44	44	Pathology: microscopic; membranes, class. of dividing membranes of twin placentas
32	156.PATH-2	1202	45	45	Pathology: microscopic; decidual vessels, thrombosis
33	157.PATH-2	1202	46	46	Pathology: microscopic; decidual vessels, fibrinoid
34	158.PATH-2	1202	47	47	Pathology: microscopic; decidual vessels, atheroma
36	159.PATH-2	1202	48	48	Pathology: microscopic; decidual necrosis, margin
37	160.PATH-2	1202	49	49	Pathology: microscopic; decidual necrosis, capsularis
38	161.PATH-2	1202	50	50	Pathology: microscopic; decidual necrosis, basal
40	162.PATH-2	1202	51	51	Pathology: microscopic; decidua, neutrophilic infiltration at margin
41	163.PATH-2	1202	52	52	Pathology: microscopic; decidua, neutrophilic infiltration in capsularis
42	164.PATH-2	1202	53	53	Pathology: microscopic; decidua, neutrophilic infiltration in basal
44	165.PATH-2	1202	54	54	Pathology: microscopic; decidua, lymphocytic infiltration at margin
45	166.PATH-2	1202	55	55	Pathology: microscopic; decidua, lymphocytic infiltration in capsularis
46	167.PATH-2	1202	56	56	Pathology: microscopic; decidua, lymphocytic infiltration in basal
48	168.PATH-2	1202	57	57	Pathology: microscopic; decidua, cytotrophoblast of columns, fibrin deposition
49	169.PATH-2	1202	58	58	Pathology: microscopic; decidua, cytotrophoblast of columns, cystic change
50	170.PATH-2	1202	59	59	Pathology: microscopic; decidua, syncytium, nuclear clumping
52	171.PATH-2	1202	60	60	Pathology: microscopic; terminal villi, Langhans' layer
53	172.PATH-2	1202	61	61	Pathology: microscopic; terminal villi, Hofbauer cells
54	173.PATH-2	1202	62	62	Pathology: microscopic; terminal villi, stromal fibrosis



Form Item Numbers Linked to Data Items on PATH-2, Placental Exam - Micros.

ITEM ON FORM	DATA ITEM ID	CARD NUM	FROM	TO	DATA ITEM NAME
55	174.PATH-2	1202	63	63	Pathology: microscopic; terminal villi, pathological edema
56	175.PATH-2	1202	64	64	Pathology: microscopic; terminal villi, micro infarcts
57	176.PATH-2	1202	65	65	Pathology: microscopic; terminal villi, nucleated RBC in fetal circulation
58	177.PATH-2	1202	66	66	Pathology: microscopic; terminal villi, melanin
61-62	178.PATH-2	1202	67	67	Pathology: microscopic; intervillous space, thrombi and adjacent villous infarction
63	179.PATH-2	1202	69	69	Pathology: microscopic; intervillous space, marginal sinus thrombi
64	180.PATH-2	1202	70	70	Pathology: microscopic; intervillous space, sickling maternal blood
65	181.PATH-2	1202	71	71	Pathology: microscopic; intervillous space, apparent maturity of placenta
66	182.PATH-2	1202	72	72	Pathology: microscopic; exam done with knowledge of case
67	183.PATH-2	1202	73	73	Pathology: microscopic; other abnormalities present

DEFINITION OF CODES  
 PLACENTAL EXAMINATION - MICROSCOPIC  
 FORM PATH-2 CARD 12022

<u>FIELD</u>	<u>CARD COLUMN</u>
1. <u>Card Number</u> Code: 1	1
2. <u>Form Number</u> Code: 202	2-4
3. <u>Revision Number</u> // Code: 2 - Form dated: 8/59 (Revised coding 1965)	5
4. <u>NINDE Number</u> Item 1 Nine-digit number for Patient Identification Code: As given	6-14
5. <u>Microscopic Examination By</u> Item 2 Code: See "Examiners" - 12012 card, pages 12-13	15-16
6. <u>Date</u> Item 3 Six-digit code for: <u>Month</u> (cols. 17-18) <u>Day</u> (cols. 19-20) <u>Year</u> (cols. 21-22) Code: As given 99 - Month, Day and/or Year Unknown	17-22
7. <u>Designation of Placenta</u> Item 4 Code: 0 - Single birth 1 - First of Multiple 2 - Second of Multiple 3 - Third of Multiple 4 - Fourth of Multiple 9 - Unknown	23
8. <u>Ampion Available for Examination</u> Item 5 Code: 0 - No 1 - Yes - not further qualified 2 - Yes - roll only 3 - Yes - fetal or placental surface only 9 - Unknown	24

DEFINITION OF CODES (continued)

FORM PATH-2  
Card 12022

FIELD

CARD  
COLUMN

CORD

9. Neutrophilic Infiltration 25-27  
 Items 8, 9 and 10  
 Three-digit code for:  
   Umbilical Vein (col. 25)  
   Umbilical Artery (col. 26)  
   Cord Substance (col. 27)  
 Code for each column:  
   0 - Not seen  
   1 - Slight  
   2 - Marked  
   3 - Combination of codes 1 and 2, moderate  
   9 - Unknown
10. Thrombosis of Vessels 28  
 Item 11  
 Code: 0 - Not seen  
       1 - Present  
       9 - Unknown
11. Number of Umbilical Arteries 29  
 Item 12  
 Code: 1 - One  
       2 - Two  
       9 - Unknown

MEMBRANES

12. Epithelium of Amnion 30-33  
 Items 15, 16, 17 and 18  
 Four-digit code for:  
   Necrosis (col. 30)  
 Code: 0 - Not seen  
       1 - Present - not qualified further  
       2 - Present - slight  
       3 - Present - marked  
       9 - Unknown  
   Squamous Metaplasia (col. 31)  
   Amnion Nodosum (col. 32)  
   Bacterial Colonies (col. 33)  
 Code for each column:  
 Same as in Field 10

DEFINITION OF CODES (continued)

FORM PATH-2  
Card 12022

FIELD

CARD  
COLUMN

13. Neutrophilic Infiltration of:  
Items 20, 21, 22, 23 and 24

34-38

Five-digit code for:

<u>Amnion of Membrane Roll</u>	(col. 34)
<u>Chorion of Membrane Roll</u>	(col. 35)
<u>Amnion of Placental Surface</u>	(col. 36)
<u>Chorion of Placental Surface</u>	(col. 37)
<u>Fetal Surface Vessels</u>	(col. 38)

Code for each column:

Same as in Field 9

14. Other Fetal Surface Vascular Changes

39

Item 25

Code: 0 - None

1 - Thrombosis

2 - Necrosis

3 - Combination of codes 1 and 2

4 - Other than specified above

5 - Combination of codes 1 and 4

6 - Combination of codes 2 and 4

7 - Combination of codes 1, 2 and 4

9 - Unknown

15. Macrophage

40-43

Items 27 and 28

Four-digit code for:

In Amnion or Chorion (cols. 40-41)

In Decidua (cols. 42-43)

Code for each two columns:

00 - Not seen

01 - Containing no pigment

02 - Containing meconium

03 - Combination of codes 01 and 02

04 - Containing hemosiderin

05 - Combination of codes 01 and 04

06 - Combination of codes 02 and 04

07 - Combination of codes 01, 02 and 04

08 - Containing unknown pigment

09 - Combination of codes 01 and 08

10 - Combination of codes 02 and 08

11 - Combination of codes 01, 02 and 08

12 - Combination of codes 04 and 08

13 - Combination of codes 01, 04 and 08

14 - Combination of codes 02, 04 and 08

15 - Combination of codes 01, 02, 04 and 08

99 - Unknown

DEFINITION OF CODES (continued)

FORM PATH-2  
Card 12022

FIELD

CARD  
COLUMN

16. Classification of Dividing Membranes of Twin  
Placentas

44

Item 29

- Code: 0 - Single birth  
1 - Monoamniotic - monochorionic  
2 - Diamniotic - dichorionic  
3 - Diamniotic - monochorionic  
8 - Other than twins  
9 - Unknown

DECIDUA

17. Vessels

45-47

Items 32, 33 and 34

Three-digit code for:

- Thrombosis (col. 45)  
Fibrinoid (col. 46)  
Atheroma (col. 47)

Code for each column:

- 0 - Not seen  
1 - Present  
2 - Unable to determine  
9 - Unknown

18. Necrosis

48-50

Items 36, 37 and 38

Three-digit code for:

- At Margin (col. 48)  
In Capsularis (col. 49)  
In Basalis (col. 50)

Code for each column:

- 0 - Not marked  
1 - Marked  
2 - Unable to determine  
9 - Unknown

19. Neutrophilic Infiltration

51-53

Items 40, 41 and 42

Three-digit code for:

- At Margin (col. 51)  
In Capsularis (col. 52)  
In Basalis (col. 53)

Code for each column:

Same as in Field 9

DEFINITION OF CODES (continued)

FORM PATH-2  
Card 12022

FIELD

CARD  
COLUMN

20. Lymphocytic Infiltration  
Items 44, 45 and 46  
Three-digit code for:  
    At Margin (col. 54)  
    In Capillaris (col. 55)  
    In Basalis (col. 56)  
Code for each column:  
    Same as in Field 9
21. Cytotrophoblast of Columns  
Items 48 and 49  
Two-digit code for:  
    Fibrin Deposition (col. 57)  
Code: 0 - Not seen  
        1 - Average  
        2 - Excessive  
        3 - Combination of codes 1 and 2  
        4 - Less than average  
        8 - Unable to determine  
        9 - Unknown  
    Cystic Change (col. 58)  
Code: 0 - Not seen  
        1 - Present  
        8 - Unable to determine  
        9 - Unknown
22. Syncytium - Nuclear Clumping  
Item 50  
Code: 1 - Normal  
        2 - Less than normal for term placenta  
        3 - Excessive for term placenta  
        4 - Excessive in parts  
        8 - Unable to determine  
        9 - Unknown
- TERMINAL VILLI
23. Langhans' Layer  
Item 52  
Code: Same as in Field 10
24. Hofbauer Cells  
Item 53  
Code: 1 - Few  
        2 - Many  
        9 - Unknown

54-56

57-58

59

60

61

## DEFINITION OF CODES (continued)

FORM PATH-2  
Card 12022FIELDCARD  
COLUMN

25. Stromal Fibrosis 62  
Item 54  
Code: 0 - Not seen  
1 - Present - not qualified further  
2 - Present - rare  
3 - Present - many  
8 - Unable to determine  
9 - Unknown
26. Pathological Edema 63  
Item 55  
Code: Same as in Field 25
27. Micro Infarcts 64  
Item 56  
Code: Same as in Field 25
28. Nucleated RBC in Fetal Circulation 65  
Item 57  
Code: Same as in Field 25
29. Melanin 66  
Item 58  
Code: Same as in Field 9
- INTERVILLOUS SPACE
30. Intervillous Thrombi and Adjacent Villous Infarction 67-68  
Items 61 and 62  
Code: 00 - Not seen  
10 - RBC intact and no adjacent villous seen  
11 - RBC intact and adjacent villous seen  
12 - Combination of codes 10 and 11  
20 - RBC hemolyzed and no adjacent villous seen  
21 - RBC hemolyzed and adjacent villous seen  
22 - Combination of codes 20 and 21  
30 - Combination of codes 10 and 20  
31 - Combination of codes 11 and 21  
32 - Combination of codes 12 and 22  
99 - Unknown
31. Marginal Sinus Thrombi 69  
Item 63  
Code: 0 - Not seen  
1 - RBC intact  
2 - RBC hemolyzed  
3 - Combination of codes 1 and 2  
9 - Unknown

DEFINITION OF CODES (continued)

FORM PATH-2  
Card 12022

FIELD

CARD  
COLUMN

- |     |                                                                                                                                                                                                                 |    |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| 32. | <p><u>Sickling: Maternal Blood</u><br/>Item 64<br/>Code: Same as in Field 21, col. 58</p>                                                                                                                       | 70 |
| 33. | <p><u>Apparent Maturity of Placenta</u><br/>Item 65<br/>Code: 1 - Under 20 weeks<br/>2 - 20-27 weeks<br/>3 - 28-36 weeks<br/>4 - 37 weeks or over<br/>8 - Unable to determine<br/>9 - Unknown</p>               | 71 |
| 34. | <p><u>Microscopic Examination Was Done With Knowledge That</u><br/>Item 66<br/>Code: 0 - No knowledge<br/>1 - Normal outcome for mother or baby<br/>2 - Abnormal outcome for mother or baby<br/>9 - Unknown</p> | 72 |
| 35. | <p><u>Presence of Other Abnormalities</u><br/>Item 67<br/>Code: Same as in Field 10</p>                                                                                                                         | 73 |





**PLACENTAL EXAMINATION-MICROSCOPIC**  
(For Form PATH-2, Dated 11-59)

**PURPOSE.** The purpose of this examination is to provide precise, detailed information about the microscopic appearance of the placenta and how it may relate to the outcome of the pregnancy for both mother and infant. Report the information on PATH-2, Placental Examination - Microscopic.

**ORDER OF EXAMINATION.** For the sake of convenience and thoroughness, the order of the examination is to conform in so far as possible with the order of items as they appear on the form.

**EXAMINER'S LACK OF BIAS.** Insofar as possible, the examiner should have no knowledge of course or outcome of the pregnancy until this form has been completed.

**WHEN TO USE THIS FORM.** This form is to be used in every case in which the crown-rump length is 16.5 centimeters or more (gestational age 20 weeks or more), and in those cases in which the placenta is intact when the fetus is less than 16.5 centimeters crown-rump.

**EXAMINATION OF SECTIONS.** During the course of this examination, at least three sections — cord, membrane roll, and placenta — should be examined. The methods for the preparation of these sections are outlined in Pathology Manual, PHS-3222-1, Placental Examination — Gross.

**DESCRIPTION OF ABNORMALITIES.** All abnormalities are to be described in Item 68. This includes those abnormalities which are not specifically mentioned in the form. Wherever possible, the item number corresponding to the abnormality should be included with the description of the abnormality. If the space at the bottom of the sheet is not sufficient, additional pages may be added.

**MULTIPLE BIRTHS.** In cases of multiple births, a separate form is to be prepared for the placenta of each fetus.

**INSTRUCTIONS**

**Item 1, Patient Identification.** As a minimum, enter the patient's name by addressograph or other method.

**Item 2, Microscopic Examination By.** Enter name and status of examiner.

**Item 3, Date.** Enter date of examination.

**Item 4, Designation of Placenta Described on this Form.** Check the appropriate box. In cases of multiple births with more than two members, check box "other multiple births" and enter in Item 68 the number of fetuses and the designation of the fetus whose placenta is described in this form.

**Item 5, Was Amnion Available for Examination.** Self-explanatory.

**Item 6, Cord.** If abnormalities are present other than those specified, describe them in Item 68. In particular, if any special sections have been taken during the course of the gross examination, describe these fully.

**Item 7, Neutrophilic Infiltration.** Self-explanatory.

**Item 8, Umbilical Vein.** Self-explanatory.

**Item 9, Umbilical Artery.** Self-explanatory.

**Item 10, Cord Substance.** Self-explanatory.

**Item 11, Thrombosis of Vessels.** If present, describe in Item 68 the age of the thrombus, the size of the vessel and the presence or absence of degenerative changes in the wall of the vessel.

**Item 12, Number of Umbilical Arteries.** Self-explanatory.

**Item 13, Membranes.** Self-explanatory.

**Item 14, Epiamnion of Amnion.** Self-explanatory.

**Item 15, Necrosis.** If present, describe in Item 68 with regard to degree and extent.

**Item 16, Squamous Metaplasia.** Self-explanatory.

**Item 17, Amnion Nodosum.** Self-explanatory.

**Item 18, Bacterial Colonies.** If present, describe these morphologically, insofar as is possible, in Item 68.

**Item 19, Neutrophilic Infiltration of.** Self-explanatory.

**Item 20, Amnion of Membrane Roll.** Self-explanatory.

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- Item 21, *Chorion of Membrane Roll*. Self-explanatory.
- Item 22, *Amnion of Placental Surface*. Self-explanatory.
- Item 23, *Chorion of Placental Surface*. Self-explanatory.
- Item 24, *Fetal Surface Vessels*. Self-explanatory.
- Item 25, *Other Fetal Surface Vascular Changes*. Check the proper box. If changes are present, describe them in Item 68.
- Item 26, *Macrophages*. Self-explanatory.
- Item 27, *In Amnion or Chorion*. Self-explanatory.
- Item 28, *In Decidua*. Self-explanatory.
- Item 29, *Twin Placentas Only - Classify Dividing Membranes*. Fill out this item only in the case of twins. If this is a multiple birth, of more than two members, leave this blank and describe all the dividing membranes in Item 68. Indicate the relationship of the fetus described on this form to the other members of the birth insofar as the dividing membranes are concerned.
- Item 30, *Decidua*. If abnormalities are present other than those specified describe them in Item 68.
- Item 31, *Vessels*. These must be observed in intact, non-necrotic areas of decidua.
- Item 32, *Thrombosis*. If present, describe in Item 68 with regard to age, extent, and whether or not the lumen of the vessel is narrowed.
- Item 33, *Fibrinoid*. If present, describe in Item 68 with regard to extent and presence or absence of luminal narrowing.
- Item 34, *Atheroma*. If present, describe in Item 68 with regard to extent and presence or absence of luminal narrowing.
- Item 35, *Necrosis*. Self-explanatory.
- Item 36, *At Margin*. This refers to necrosis at the margin of the placenta.
- Item 37, *In Capsularis*. This refers to necrosis in the decidua basalis.
- Item 38, *In Basalis*. This refers to necrosis in the decidua basalis.
- Item 39, *Neutrophilic Infiltration*. Self-explanatory.
- Item 40, *At Margin*. Self-explanatory.
- Item 41, *In Capsularis*. Self-explanatory.
- Item 42, *In Basalis*. Self-explanatory.
- Item 43, *Lymphocytic Infiltration*. Self-explanatory.
- Item 44, *At Margin*. Self-explanatory.
- Item 45, *In Capsularis*. Self-explanatory.
- Item 46, *In Basalis*. Self-explanatory.
- Item 47, *Cytotrophoblast of Columns*. Self-explanatory.
- Item 48, *Fibrin Deposition*. This refers to the fibrin or fibrinoid deposits which occur in cytotrophoblast cells as term is approached.
- Item 49, *Cystic Change*. These may form within the trophoblastic columns. If the change is present, check the proper box.
- Item 50, *Syncytium-Nuclear Clumping*. At term, approximately 30% of all terminal fetal villi have a syncytial bud attached to their surface. Using this as a normal, check the proper box with regard to syncytial nuclear clumping in the placenta under examination.
- Item 51, *Terminal Villi*. If abnormalities other than those specified are present, describe them in Item 68.
- Item 52, *Lenghans Layer*. Self-explanatory.
- Item 53, *Hofbauer Cells*. Self-explanatory.
- Item 54, *Stromal Fibrosis*. If present, describe in Item 68 with regard to degree and distribution.
- Item 55, *Pathological Edema*. If present, describe in Item 68 with regard to extent and distribution and roughly estimate what proportion of villi appear to be involved.
- Item 56, *Microinfarcts*. Microinfarcts are small areas of incipient degeneration of placental tissue which form a distinct histologic lesion although they cannot be seen grossly. Most

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often terminal villi are closely packed in a microinfarct and often they appear to be agglutinated by inflammatory cells or degenerated epithelium. The blood vessels are apparently obliterated.

**Item 57, Nucleated RBC in Fetal Circulation.** Self-explanatory.

**Item 58, Melanin.** This pigment may be present within, and next to, calcium deposits, in fibrin masses, in the thickened granular basement membrane of villi, and rarely in Hofbauer cells. It is yellowish-brown in color.

**Item 59, Patient Identification.** As a minimum, enter the patient's name by addressograph or other method.

**Item 60, Intervillous Spaces.** If abnormalities other than those specified are present, describe them in Item 68.

**Item 61, Intervillous Thrombi.** If nucleated red blood cells are seen in the substance of such a thrombus, this should be noted in Item 68.

**Item 62, If Thrombi Present.** Self-explanatory.

**Item 63, Marginal Sinus Thrombi.** Self-explanatory.

**Item 64, Sickling (Maternal Blood).** Self-explanatory.

**Item 65, Apparent Maturity of Placenta.** Self-explanatory. If question arises as to the criteria to be used in this estimation, the examiner is referred to pages 14 and 15 of the revised form of *The Examination of the Placenta* by Dr. Kurt Benirschke.

**Item 66, Microscopic Examination Was Done with Low Magnification.** Self-explanatory.

**Item 67, Presence of Other Abnormalities.** Check the appropriate box with respect to presence of abnormalities other than those specifically mentioned in the form.

**Item 68, Description of Abnormalities.** In this space, all those abnormalities previously noted and all those abnormalities not specifically mentioned in this form are to be described. Whenever possible, include the item number with the description of the abnormality.

**Item 69, Final Diagnosis.** Self-explanatory.

**Item 70, Do Not Use.** This box is to be used by central office of Collaborative Research for coding.