

A P P E N D I X     I I .

(DETAILS OF BIOCHEMICAL DETERMINATIONS)

PLASMA GLUCOSE CONCENTRATION ( mg./100 ml. ) of FULL-TERM NORMAL INFANTS  
DURING THE EARLY NEONATAL PERIOD

| Infant<br>No. | Hours after birth |    |    |    |    | Day of life |            |           |           |             |  |
|---------------|-------------------|----|----|----|----|-------------|------------|-----------|-----------|-------------|--|
|               | 0-1               | 3  | 6  | 12 | 24 | Third day   | Fourth day | Fifth day | Sixth day | Seventh day |  |
| 1             | 89                | 46 | 32 | 36 | 57 | 53          | 33         | 64        | 59        | 52          |  |
| 2             | 54                | 52 | 44 | 61 | 50 | 59          | 46         | 57        | -         | -           |  |
| 3             | 117               | 70 | 57 | 49 | 47 | 70          | 65         | 76        | 72        | 72          |  |
| 4             | 34                | 45 | 48 | 50 | 60 | 40          | 57         | 57        | -         | -           |  |
| 5             | 50                | 38 | 38 | 40 | 50 | 38          | 57         | 63        | 62        | 54          |  |
| 6             | 43                | 32 | 32 | 54 | 46 | 41          | 46         | -         | -         | -           |  |
| 7             | 49                | 40 | 49 | 63 | 48 | 76          | 84         | 80        | 73        | 69          |  |
| 8             | -                 | 41 | 59 | 57 | 56 | 43          | 47         | 53        | 51        | 63          |  |
| 9             | 48                | 46 | 33 | 51 | 45 | 64          | 61         | 73        | 77        | 83          |  |
| 10            | 54                | 30 | 53 | 51 | 42 | 62          | 59         | 71        | 70        | 71          |  |
| 11            | 54                | 34 | 44 | 50 | 59 | 72          | 76         | 57        | 80        | 78          |  |
| 12            | 20                | 20 | 26 | 46 | 57 | 51          | 64         | 50        | 57        | 52          |  |

PLASMA GLUCOSE CONCENTRATION OF FULL-TERM NORMAL INFANTS  
DURING EARLY NEONATAL PERIOD ( CONTINUED )

| Infant<br>No. | Hours after birth |    |    |    |    | Day of life |            |           |           |             |  |
|---------------|-------------------|----|----|----|----|-------------|------------|-----------|-----------|-------------|--|
|               | 0-1               | 3  | 6  | 12 | 24 | Third day   | Fourth day | Fifth day | Sixth day | Seventh day |  |
| 13            | -                 | 60 | 38 | 52 | 58 | 66          | 90         | 78        | 82        | 76          |  |
| 14            | 64                | 46 | 43 | 62 | 60 | 65          | 83         | 61        | -         | -           |  |
| 15            | 65                | 57 | 52 | 62 | 57 | 57          | 48         | 72        | 70        | 73          |  |
| 16            | 48                | 57 | 40 | 57 | 60 | 65          | 56         | 65        | 65        | 66          |  |
| 17            | 55                | 43 | 30 | 56 | 51 | 50          | 71         | 60        | 58        | 60          |  |
| 18            | 48                | 49 | 60 | 70 | 46 | 56          | 65         | 58        | 66        | 67          |  |
| 19            | 31                | 35 | 50 | 51 | 47 | 60          | 55         | 79        | 72        | 78          |  |
| 20            | 81                | 63 | 39 | 35 | 42 | 35          | 28         | 50        | 58        | 52          |  |
| 21            | 44                | 45 | 53 | 54 | 61 | 77          | 80         | 79        | -         | -           |  |
| 22            | 48                | 52 | 46 | 71 | 65 | -           | -          | -         | -         | -           |  |
| 23            | -                 | 38 | 50 | 50 | -  | -           | -          | -         | -         | -           |  |

221

PLASMA LEVELS AFTER GLUCAGON ( 30  $\mu$ g./kg., i.m.) ADMINISTRATION  
GLUCOSE (mg./100 ml.)

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No.                          | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |     |
|-------------------------------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|-----|
|                                     |              | 20                                    | 40 | 60 | 90 | 120 | 150          |                                       | 20 | 40 | 60 | 90 | 120 | 150 |
| Full - term <b>normal</b> infants : |              |                                       |    |    |    |     |              |                                       |    |    |    |    |     |     |

Full - term normal infants :

|      |    |    |     |     |     |     |     |    |     |     |     |     |     |    |
|------|----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|
| N 1  | 37 | 55 | 62  | 65  | 64  | 48  | -   | 78 | 120 | 116 | 104 | 94  | 79  | 79 |
| N 2  | 28 | 40 | 60  | 73  | 88  | 111 | 94  | -  | -   | -   | -   | -   | -   | -  |
| N 3  | 45 | 63 | 83  | 109 | 90  | 82  | 44  | -  | -   | -   | -   | -   | -   | -  |
| N 4  | 48 | 65 | 91  | 99  | 104 | 103 | 64  | 74 | 108 | 122 | 126 | 109 | 72  | 53 |
| N 5  | 42 | 62 | 84  | 94  | 82  | 65  | 41  | -  | -   | -   | -   | -   | -   | -  |
| N 6  | 41 | 50 | 59  | 78  | 79  | 73  | 54  | 79 | 114 | 132 | 147 | 130 | 111 | 75 |
| N 7  | 64 | 97 | 109 | 124 | 136 | 139 | 127 | -  | -   | -   | -   | -   | -   | -  |
| N 8  | 28 | 33 | 55  | 62  | 63  | 55  | 54  | 64 | 88  | 89  | 100 | 92  | 68  | 68 |
| N 9  | 50 | 64 | 77  | 83  | 77  | 74  | 73  | 78 | 92  | 106 | 124 | 122 | 67  | 67 |
| N 10 | 47 | 72 | 99  | 115 | 138 | 118 | 67  | 71 | 97  | 122 | 114 | 97  | 62  | 55 |

GLUCOSE (CONTINUED )

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal Level. | Minutes after glucagon administration |    |     |     |     |     |    |     | Basal Level. | Minutes after glucagon administration |     |     |     |  |  |  |  |
|------------|--------------|---------------------------------------|----|-----|-----|-----|-----|----|-----|--------------|---------------------------------------|-----|-----|-----|--|--|--|--|
|            |              | 20                                    | 40 | 60  | 90  | 120 | 150 | 20 | 40  |              | 60                                    | 90  | 120 | 150 |  |  |  |  |
| N 11       | 36           | 50                                    | 54 | 54  | 54  | 54  | 54  | 46 | 85  | 112          | 118                                   | 83  | 54  | 41  |  |  |  |  |
| N 12       | 59           | 74                                    | 88 | 95  | 93  | 70  | 63  | 72 | 97  | 102          | 104                                   | 86  | 73  | 62  |  |  |  |  |
| N 13       | 41           | 67                                    | 78 | 85  | 81  | 59  | 46  | 58 | 85  | 91           | 93                                    | 89  | 87  | 59  |  |  |  |  |
| N 14       | 49           | 60                                    | 77 | 96  | 100 | 116 | 114 | 62 | 84  | 134          | 124                                   | 112 | 66  | 62  |  |  |  |  |
| N 15       | 43           | 60                                    | 77 | 91  | 106 | 104 | 87  | -  | -   | -            | -                                     | -   | -   | -   |  |  |  |  |
| N 16       | 24           | 51                                    | 55 | 68  | 58  | 46  | 38  | 81 | 99  | 116          | 96                                    | 85  | 67  | 73  |  |  |  |  |
| N 17       | 40           | 64                                    | 92 | 106 | 92  | 86  | 76  | 80 | 154 | 166          | 181                                   | 162 | 129 | 69  |  |  |  |  |

Healthy premature infants :

|     |    |    |     |     |     |     |     |    |     |     |     |    |    |    |  |  |  |  |  |  |  |  |
|-----|----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|----|----|----|--|--|--|--|--|--|--|--|
| P 1 | 26 | 47 | 62  | 78  | 70  | 63  | -   | -  | -   | -   | -   | -  | -  | -  |  |  |  |  |  |  |  |  |
| P 2 | 24 | 31 | 37  | 39  | 40  | 38  | 32  | -  | -   | -   | -   | -  | -  | -  |  |  |  |  |  |  |  |  |
| P 3 | 30 | 34 | 37  | 41  | 46  | 41  | 41  | 59 | 70  | 59  | 59  | 56 | 54 | 54 |  |  |  |  |  |  |  |  |
| P 4 | 22 | 39 | 61  | 81  | 83  | 81  | 78  | -  | -   | -   | -   | -  | -  | -  |  |  |  |  |  |  |  |  |
| P 5 | 74 | 83 | 105 | 115 | 138 | 170 | 167 | 71 | 108 | 124 | 112 | 92 | 79 | 77 |  |  |  |  |  |  |  |  |

## GLUCOSE ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant<br>No. | Basal<br>level. | Minutes after glucagon administration |     |     |     |     |     | Basal<br>level. | Minutes after glucagon administration |    |    |    |     |     |
|---------------|-----------------|---------------------------------------|-----|-----|-----|-----|-----|-----------------|---------------------------------------|----|----|----|-----|-----|
|               |                 | 20                                    | 40  | 60  | 90  | 120 | 150 |                 | 20                                    | 40 | 60 | 90 | 120 | 150 |
| P 6           | 58              | 81                                    | 100 | 108 | 122 | 112 | 90  | 61              | 71                                    | 83 | 86 | 82 | 75  | 59  |
| P 7           | 43              | 63                                    | 78  | 100 | 78  | 61  | 43  | -               | -                                     | -  | -  | -  | -   | -   |
| P 8           | 63              | 92                                    | 112 | 126 | 120 | 102 | 71  | -               | -                                     | -  | -  | -  | -   | -   |
| P 9           | 27              | 41                                    | 55  | 69  | 71  | 71  | 61  | -               | -                                     | -  | -  | -  | -   | -   |
| P 10          | 38              | 65                                    | 98  | 111 | 91  | 69  | 62  | -               | -                                     | -  | -  | -  | -   | -   |
| P 11          | 53              | 60                                    | 83  | 91  | 94  | 75  | 48  | 56              | 75                                    | 88 | 87 | 84 | 71  | 60  |
| P 12          | 50              | 69                                    | 102 | 108 | 138 | 138 | 127 | -               | -                                     | -  | -  | -  | -   | -   |
| P 13          | 36              | 52                                    | 71  | 83  | 114 | 112 | 90  | 44              | 56                                    | 60 | 55 | 37 | 35  | 43  |
| P 14          | 73              | 98                                    | 107 | 118 | 125 | 124 | 103 | 36              | 69                                    | 85 | 86 | 83 | 74  | 68  |
| P 15          | 41              | 73                                    | 96  | 125 | 134 | 142 | 140 | 39              | 76                                    | 91 | 85 | 82 | 64  | 62  |

## GLUCOSE ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal Level. | Minutes after glucagon administration |    |    |    |     |     |  | Basal level. | Minutes after glucagon administration |    |    |    |     |     |  |
|------------|--------------|---------------------------------------|----|----|----|-----|-----|--|--------------|---------------------------------------|----|----|----|-----|-----|--|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150 |  |              | 20                                    | 40 | 60 | 90 | 120 | 150 |  |

Healthy low birth weight infants :

|      |    |    |    |     |     |    |    |  |    |     |     |     |     |    |    |  |
|------|----|----|----|-----|-----|----|----|--|----|-----|-----|-----|-----|----|----|--|
| L 1  | 42 | 55 | 72 | 73  | 74  | 72 | 37 |  | 42 | 65  | 71  | 74  | 59  | 44 | 42 |  |
| L 2  | 30 | 55 | 70 | 89  | 83  | 82 | 61 |  | 51 | 79  | 92  | 100 | 91  | 77 | 75 |  |
| L 3  | 22 | 44 | 61 | 69  | 91  | 76 | 65 |  | 64 | 107 | 120 | 111 | 102 | 68 | 58 |  |
| L 4  | 33 | 74 | 83 | 115 | 131 | 96 | 62 |  | 82 | 98  | 101 | 94  | 80  | 87 | 87 |  |
| L 5  | 36 | 62 | 69 | 81  | 96  | 88 | 87 |  | 60 | 83  | 85  | 104 | 88  | 71 | 54 |  |
| L 6  | 57 | 75 | 94 | 112 | 108 | 74 | 48 |  | 44 | 99  | 97  | 80  | 50  | 33 | 28 |  |
| L 7  | 46 | 77 | 93 | 111 | 107 | 83 | 54 |  | 49 | 81  | 93  | 89  | 79  | 62 | 61 |  |
| L 8  | 41 | 57 | 84 | 90  | 82  | 64 | 53 |  | 54 | 79  | 72  | 57  | 42  | 42 | 43 |  |
| L 9  | 35 | 48 | 60 | 60  | 58  | 54 | 44 |  | 68 | 87  | 109 | 119 | 139 | 76 | 61 |  |
| L 10 | 25 | 50 | 61 | 75  | 82  | 93 | 75 |  | 38 | 70  | 80  | 71  | 61  | 50 | 41 |  |
| L 11 | 49 | 62 | 90 | 104 | 96  | 71 | 54 |  | -  | -   | -   | -   | -   | -  | -  |  |
| L 12 | 30 | 37 | 48 | 46  | 37  | 29 | 20 |  | -  | -   | -   | -   | -   | -  | -  |  |

GLUCOSE ( CONTINUED )

First day ( within 2 to 3 hours after birth )

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration. |    |     |    |     | Basal level. | Minutes after glucagon administration. |    |     |     |     |     |     |
|------------|--------------|----------------------------------------|----|-----|----|-----|--------------|----------------------------------------|----|-----|-----|-----|-----|-----|
|            |              | 20                                     | 40 | 60  | 90 | 120 |              | 150                                    | 20 | 40  | 60  | 90  | 120 | 150 |
| L 13       | 24           | 45                                     | 64 | 68  | 66 | 63  | 53           | 46                                     | 88 | 105 | 124 | 122 | 93  | 58  |
| L 14       | 35           | 50                                     | 88 | 108 | 92 | 74  | 45           | 60                                     | 99 | 113 | 106 | 71  | 65  | 56  |
| L 15       | 48           | 51                                     | 54 | 56  | 73 | 64  | 46           | 42                                     | 90 | 116 | 108 | 88  | 62  | 49  |

Infants delivered by forceps application :

|     |    |    |     |     |     |    |    |    |    |     |     |    |    |    |
|-----|----|----|-----|-----|-----|----|----|----|----|-----|-----|----|----|----|
| F 1 | 42 | 73 | 105 | 116 | 100 | 73 | 38 | 47 | 71 | 77  | 66  | 61 | 56 | 49 |
| F 2 | 29 | 39 | 60  | 54  | 46  | 39 | 38 | 66 | 96 | 100 | 118 | 93 | 72 | 64 |
| F 3 | 39 | 95 | 104 | 97  | 67  | 47 | 40 | 61 | 96 | 111 | 91  | 70 | 67 | 61 |
| F 4 | 43 | 56 | 69  | 93  | 86  | 80 | 69 | -  | -  | -   | -   | -  | -  | -  |
| F 5 | 61 | 84 | 112 | 117 | 102 | 70 | 60 | 53 | 75 | 92  | 88  | 67 | 56 | 53 |
| F 6 | 62 | 76 | 97  | 90  | 78  | 54 | 52 | 54 | 82 | 92  | 92  | 82 | 69 | 58 |
| F 7 | 29 | 55 | 81  | 81  | 67  | 47 | 33 | 65 | 96 | 105 | 107 | 80 | 66 | 63 |
| F 8 | 20 | 38 | 59  | 73  | 89  | 86 | 69 | 39 | 53 | 88  | 92  | 76 | 60 | 42 |

First day ( within 2 to 3 hours after birth )Eighth day

| Infant No.                               | Basal Level. | Minutes after glucagon administration |     |     |     |     | Basal Level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------------------------------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|                                          |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| Infants delivered by Caesarean section : |              |                                       |     |     |     |     |              |                                       |     |     |     |     |     |     |
| (300 µg./kg. glucagon on the first day)  |              |                                       |     |     |     |     |              |                                       |     |     |     |     |     |     |
| C 1                                      | 38           | 72                                    | 104 | 122 | 122 | 106 | 84           | 57                                    | 97  | 120 | 141 | 134 | 91  | 59  |
| C 2                                      | 42           | 69                                    | 81  | 104 | 127 | 127 | 106          | 46                                    | 112 | 146 | 162 | 104 | 56  | 48  |
| C 3                                      | 35           | 75                                    | 81  | 93  | 110 | 112 | 101          | 65                                    | 95  | 104 | 106 | 95  | 77  | 55  |
| C 4                                      | 55           | 62                                    | 73  | 96  | 104 | 92  | 87           | 64                                    | 89  | 103 | 104 | 82  | 80  | 57  |
| C 5                                      | 79           | 94                                    | 108 | 114 | 117 | 123 | 123          | 59                                    | 90  | 114 | 107 | 79  | 62  | 59  |
| C 6                                      | 35           | 61                                    | 76  | 91  | 116 | 140 | 132          | 57                                    | 97  | 128 | 130 | 122 | 93  | 68  |
| C 7                                      | 26           | 40                                    | 74  | 77  | 70  | 69  | 64           | -                                     | -   | -   | -   | -   | -   | -   |
| C 8                                      | 35           | 65                                    | 81  | 120 | 146 | 170 | 169          | 56                                    | 105 | 124 | 135 | 115 | 83  | 57  |
| *C 9                                     | 55           | 94                                    | 119 | 130 | 140 | 121 | 116          | 65                                    | 131 | 138 | 136 | 117 | 89  | 68  |
| *C 10                                    | 87           | 112                                   | 116 | 121 | 128 | 144 | 129          | 48                                    | 61  | 82  | 89  | 68  | 66  | 52  |

\* Premature infants.

## GLUCOSE ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150          |                                       | 20 | 40 | 60 | 90 | 120 |

Full - term infants with maternal toxemia :

|     |    |     |     |     |     |     |    |     |     |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|
| T 1 | 57 | 114 | 122 | 115 | 85  | 60  | 46 | 62  | 98  | 124 | 126 | 128 | 112 | 107 |
| T 2 | 62 | 74  | 89  | 108 | 112 | 104 | 95 | 69  | 115 | 128 | 141 | 137 | 104 | 83  |
| T 3 | 23 | 38  | 65  | 69  | 61  | 55  | 34 | -   | -   | -   | -   | -   | -   | -   |
| T 4 | 24 | 66  | 81  | 83  | 86  | 60  | 53 | 106 | 154 | 162 | 176 | 162 | 138 | 96  |
| T 5 | 45 | 72  | 127 | 149 | 128 | 126 | 83 | 48  | 92  | 83  | 63  | 42  | 47  | 48  |

Infants with maternal toxemia delivered by forceps application :

|     |    |     |     |     |     |     |     |    |     |     |     |    |    |    |
|-----|----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|----|----|----|
| T 6 | 44 | 105 | 108 | 92  | 90  | 87  | 83  | -  | -   | -   | -   | -  | -  | -  |
| T 7 | 90 | 112 | 127 | 132 | 144 | 140 | 127 | 52 | 119 | 125 | 104 | 85 | 81 | 67 |

Premature infants with maternal toxemia :

|      |    |    |     |     |     |    |    |    |     |     |    |    |    |    |
|------|----|----|-----|-----|-----|----|----|----|-----|-----|----|----|----|----|
| T 8  | 35 | 48 | 68  | 85  | 89  | 85 | 79 | 73 | 83  | 94  | 86 | 81 | 75 | 71 |
| T 9  | 41 | 59 | 66  | 89  | 80  | 70 | 63 | 53 | 82  | 80  | 67 | 50 | 53 | 55 |
| T 10 | 55 | 95 | 115 | 114 | 100 | 76 | 74 | 60 | 110 | 109 | 95 | 80 | 69 | 61 |

## GLUCOSE ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. |    |    |    |     | Minutes after glucagon administration |    |    |    |    | Basal level. | Minutes after glucagon administration |     |  |  |  |
|------------|--------------|----|----|----|-----|---------------------------------------|----|----|----|----|--------------|---------------------------------------|-----|--|--|--|
|            | 20           | 40 | 60 | 90 | 120 | 150                                   | 20 | 40 | 60 | 90 |              | 120                                   | 150 |  |  |  |

Infants of diabetic mothers :

|      |    |    |     |     |     |     |     |    |     |     |     |     |     |    |
|------|----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|
| D 1  | 21 | 32 | 51  | 63  | 53  | 29  | 27  | 64 | 100 | 112 | 108 | 80  | 46  | 44 |
| *D 2 | 66 | 66 | 67  | 69  | 74  | 63  | 52  | -  | -   | -   | -   | -   | -   | -  |
| *D 3 | 44 | 66 | 101 | 118 | 120 | 112 | 100 | 72 | 113 | 140 | 157 | 148 | 113 | 74 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |    |    |    |    |     |     |    |    |    |    |    |     |     |     |
|-----|----|----|----|----|-----|-----|----|----|----|----|----|-----|-----|-----|
| S 1 | 48 | 61 | 66 | 94 | 108 | 107 | 92 | 67 | 75 | 87 | 94 | 106 | 107 | 113 |
|-----|----|----|----|----|-----|-----|----|----|----|----|----|-----|-----|-----|

\* Delivered by Caesarean Section .

Δ GLUCOSE ( mg./100 ml.)

63

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     |     | Basal level. | Minutes after glucagon administration |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|-----|--------------|---------------------------------------|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150 |              | 20                                    | 40 | 60 | 90 | 120 | 150 |

Full - term normal infants :

|      |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|------|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| N 1  | 37 | 18 | 25 | 28 | 27 | 11 | -  | 78 | 42 | 38 | 26 | 16 | 1   | 1   |
| N 2  | 28 | 12 | 32 | 45 | 60 | 83 | 66 | -  | -  | -  | -  | -  | -   | -   |
| N 3  | 45 | 18 | 38 | 64 | 45 | 37 | -1 | -  | -  | -  | -  | -  | -   | -   |
| N 4  | 48 | 17 | 43 | 51 | 56 | 55 | 16 | 74 | 34 | 48 | 52 | 35 | -2  | -21 |
| N 5  | 42 | 20 | 42 | 52 | 40 | 23 | -1 | -  | -  | -  | -  | -  | -   | -   |
| N 6  | 41 | 9  | 18 | 37 | 38 | 32 | 13 | 79 | 35 | 53 | 68 | 51 | 32  | -4  |
| N 7  | 64 | 33 | 45 | 60 | 72 | 75 | 63 | -  | -  | -  | -  | -  | -   | -   |
| N 8  | 28 | 5  | 27 | 34 | 35 | 27 | 26 | 64 | 24 | 25 | 36 | 28 | 4   | 4   |
| N 9  | 50 | 14 | 27 | 33 | 27 | 24 | 23 | 78 | 14 | 28 | 46 | 44 | -11 | -11 |
| N 10 | 47 | 25 | 52 | 68 | 91 | 71 | 20 | 71 | 26 | 51 | 43 | 26 | -9  | -16 |
| N 11 | 36 | 14 | 18 | 18 | 18 | 18 | 18 | 46 | 39 | 66 | 72 | 37 | 8   | -5  |
| N 12 | 59 | 15 | 29 | 36 | 24 | 11 | 4  | 72 | 25 | 30 | 32 | 14 | 1   | -10 |
| N 13 | 41 | 26 | 37 | 44 | 40 | 18 | 5  | 58 | 27 | 33 | 35 | 31 | 29  | 1   |

## Δ GLUCOSE ( CONTINUED )

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |     |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|-----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60  | 90 | 120 | 150 |
| N 14       | 40           | 20                                    | 37 | 56 | 60 | 76  | 74           | 62                                    | 22 | 72 | 62  | 50 | 4   | 0   |
| N 15       | 43           | 17                                    | 34 | 48 | 63 | 61  | 44           | -                                     | -  | -  | -   | -  | -   | -   |
| N 16       | 24           | 27                                    | 31 | 44 | 34 | 22  | 14           | 81                                    | 18 | 35 | 15  | 4  | -14 | -8  |
| N 17       | 40           | 24                                    | 52 | 66 | 52 | 46  | 36           | 80                                    | 74 | 86 | 101 | 82 | 49  | -11 |

## Healthy premature infants :

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| P 1 | 26 | 21 | 36 | 52 | 44 | 37 | -  | -  | -  | -  | -  | -  | -  | -  |
| P 2 | 24 | 6  | 13 | 15 | 16 | 14 | 8  | -  | -  | -  | -  | -  | -  | -  |
| P 3 | 30 | 4  | 7  | 11 | 16 | 11 | 11 | 59 | 11 | 0  | 0  | -3 | -5 | -5 |
| P 4 | 22 | 17 | 39 | 59 | 61 | 59 | 56 | -  | -  | -  | -  | -  | -  | -  |
| P 5 | 74 | 9  | 31 | 41 | 64 | 96 | 93 | 71 | 37 | 53 | 41 | 21 | 8  | 6  |
| P 6 | 58 | 23 | 42 | 50 | 64 | 54 | 32 | 61 | 10 | 22 | 25 | 21 | 14 | -2 |
| P 7 | 43 | 20 | 35 | 57 | 35 | 18 | 0  | -  | -  | -  | -  | -  | -  | -  |
| P 8 | 63 | 29 | 49 | 63 | 57 | 39 | 8  | -  | -  | -  | -  | -  | -  | -  |
| P 9 | 27 | 14 | 28 | 42 | 44 | 44 | 34 | -  | -  | -  | -  | -  | -  | -  |

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 | 120 | 150 |
| P 10       | 38           | 27                                    | 60 | 73 | 53 | 31  | 24           | -                                     | -  | -  | -  | -  | -   |     |
| P 11       | 53           | 7                                     | 30 | 38 | 41 | 22  | -5           | 56                                    | 19 | 32 | 31 | 28 | 15  | 4   |
| P 12       | 50           | 19                                    | 52 | 58 | 88 | 88  | 77           | -                                     | -  | -  | -  | -  | -   | -   |
| P 13       | 36           | 16                                    | 35 | 47 | 78 | 76  | 54           | 44                                    | 12 | 16 | 11 | -7 | -9  | -1  |
| P 14       | 73           | 25                                    | 34 | 45 | 52 | 51  | 30           | 36                                    | 33 | 49 | 50 | 47 | 38  | 32  |
| P 15       | 41           | 32                                    | 55 | 84 | 93 | 101 | 99           | 39                                    | 37 | 52 | 46 | 43 | 25  | 23  |

Healthy low birth weight infants :

|     |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| L 1 | 42 | 13 | 30 | 31 | 32 | 30 | -5 | 42 | 23 | 29 | 32 | 17 | 2   | 0   |
| L 2 | 30 | 25 | 40 | 59 | 53 | 52 | 31 | 51 | 28 | 41 | 49 | 40 | 26  | 24  |
| L 3 | 22 | 22 | 39 | 47 | 69 | 54 | 43 | 64 | 43 | 56 | 47 | 38 | 4   | -6  |
| L 4 | 33 | 41 | 50 | 82 | 98 | 63 | 29 | 82 | 16 | 26 | 12 | -2 | 5   | 5   |
| L 5 | 36 | 26 | 33 | 45 | 60 | 52 | 51 | 60 | 23 | 25 | 44 | 28 | 11  | -6  |
| L 6 | 57 | 18 | 37 | 55 | 51 | 17 | -9 | 44 | 55 | 53 | 36 | 6  | -41 | -16 |
| L 7 | 46 | 31 | 47 | 65 | 61 | 37 | 8  | 49 | 32 | 44 | 40 | 30 | 13  | 12  |

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |     |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|-----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90  | 120 | 150 |
| L 8        | 41           | 16                                    | 43 | 49 | 41 | 23  | 12           | 54                                    | 25 | 18 | 3  | -12 | -12 | -11 |
| L 9        | 35           | 25                                    | 36 | 50 | 57 | 68  | 50           | 68                                    | 19 | 42 | 33 | 23  | 12  | 3   |
| L 10       | 25           | 13                                    | 25 | 25 | 23 | 19  | 9            | 38                                    | 32 | 41 | 51 | 71  | 8   | -7  |
| L 11       | 49           | 13                                    | 41 | 55 | 47 | 22  | 5            | -                                     | -  | -  | -  | -   | -   | -   |
| L 12       | 30           | 7                                     | 18 | 16 | 7  | -1  | -10          | -                                     | -  | -  | -  | -   | -   | -   |
| L 13       | 24           | 21                                    | 40 | 44 | 42 | 39  | 29           | 46                                    | 42 | 59 | 78 | 76  | 47  | 14  |
| L 14       | 35           | 15                                    | 53 | 73 | 57 | 39  | 10           | 60                                    | 39 | 53 | 46 | 11  | 5   | -4  |
| L 15       | 48           | 3                                     | 6  | 8  | 25 | 16  | -2           | 42                                    | 48 | 74 | 66 | 46  | 20  | 7   |

Infants delivered by forceps application:

|     |    |    |    |    |    |    |    |    |    |    |    |    |   |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|---|----|
| F 1 | 42 | 31 | 63 | 74 | 58 | 31 | -4 | 47 | 24 | 30 | 19 | 14 | 9 | 2  |
| F 2 | 29 | 10 | 31 | 25 | 17 | 10 | 9  | 66 | 30 | 34 | 52 | 27 | 6 | -2 |
| F 3 | 39 | 56 | 65 | 58 | 28 | 8  | 1  | 61 | 35 | 50 | 30 | 9  | 6 | 0  |
| F 4 | 43 | 13 | 26 | 50 | 43 | 37 | 26 | -  | -  | -  | -  | -  | - | -  |
| F 5 | 61 | 23 | 51 | 56 | 41 | 9  | -1 | 53 | 22 | 39 | 35 | 14 | 3 | 0  |

# Δ GLUCOSE ( CONTINUED )

33

First day ( within 2 to 3 hours after birth )

Eighth day

| Infant No. | Basal Level. | Minutes after glucagon administration |    |    |    |     |     | Basal Level. | Minutes after glucagon administration |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|-----|--------------|---------------------------------------|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150 |              | 20                                    | 40 | 60 | 90 | 120 | 150 |
| F 6        | 62           | 14                                    | 35 | 28 | 16 | -8  | -10 | 54           | 28                                    | 38 | 38 | 28 | 15  | 4   |
| F 7        | 29           | 26                                    | 52 | 52 | 38 | 18  | 4   | 65           | 31                                    | 40 | 42 | 15 | 1   | -2  |
| F 8        | 20           | 18                                    | 39 | 53 | 69 | 66  | 49  | 39           | 14                                    | 49 | 53 | 37 | 21  | 3   |

## Infants delivered by Caesarean section :

( 300 µg./kg. glucagon the first day )

|       |    |    |    |    |     |     |     |    |    |     |     |    |    |     |
|-------|----|----|----|----|-----|-----|-----|----|----|-----|-----|----|----|-----|
| C 1   | 38 | 34 | 66 | 84 | 84  | 68  | 46  | 57 | 40 | 63  | 84  | 77 | 34 | 2   |
| C 2   | 42 | 27 | 39 | 62 | 85  | 85  | 64  | 46 | 66 | 100 | 116 | 58 | 10 | 2   |
| C 3   | 35 | 40 | 46 | 58 | 75  | 77  | 66  | 65 | 30 | 39  | 41  | 30 | 12 | -10 |
| C 4   | 55 | 7  | 18 | 41 | 49  | 37  | 32  | 64 | 25 | 39  | 40  | 18 | 16 | -7  |
| C 5   | 79 | 15 | 29 | 35 | 38  | 44  | 44  | 59 | 31 | 55  | 48  | 20 | 3  | 0   |
| C 6   | 35 | 26 | 41 | 56 | 81  | 105 | 97  | 57 | 40 | 71  | 73  | 65 | 36 | 11  |
| C 7   | 26 | 14 | 48 | 51 | 44  | 43  | 38  | -  | -  | -   | -   | -  | -  | -   |
| C 8   | 35 | 30 | 46 | 85 | 111 | 135 | 134 | 56 | 49 | 68  | 79  | 59 | 27 | 1   |
| *C 9  | 55 | 39 | 64 | 75 | 85  | 66  | 61  | 65 | 66 | 74  | 71  | 52 | 24 | 3   |
| *C 10 | 87 | 25 | 29 | 34 | 41  | 57  | 42  | 48 | 13 | 34  | 41  | 20 | 18 | 4   |

\* Premature infants

## Δ GLUCOSE ( CONTINUED )

First day ( within 2 to 3 hours after birth )Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150          |                                       | 20 | 40 | 60 | 90 | 120 |

Full - term infants with maternal toxemia :

|     |    |    |    |     |    |    |     |     |    |    |    |    |    |     |
|-----|----|----|----|-----|----|----|-----|-----|----|----|----|----|----|-----|
| Π 1 | 57 | 57 | 65 | 58  | 28 | 3  | -11 | 62  | 36 | 62 | 64 | 66 | 50 | 45  |
| Π 2 | 62 | 12 | 27 | 46  | 50 | 42 | 33  | 69  | 46 | 59 | 72 | 68 | 35 | 14  |
| Π 3 | 23 | 15 | 42 | 46  | 38 | 32 | 11  | -   | -  | -  | -  | -  | -  | -   |
| Π 4 | 24 | 42 | 57 | 59  | 62 | 36 | 29  | 106 | 48 | 56 | 70 | 56 | 32 | -10 |
| Π 5 | 45 | 27 | 82 | 104 | 83 | 81 | 338 | 48  | 44 | 35 | 15 | -6 | -1 | 0   |

Infants with maternal toxemia delivered by forceps application :

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Π 6 | 44 | 61 | 64 | 48 | 46 | 43 | 39 | -  | -  | -  | -  | -  | -  | -  |
| Π 7 | 90 | 22 | 37 | 42 | 54 | 50 | 37 | 52 | 67 | 73 | 52 | 33 | 29 | 15 |

Premature infants with maternal toxemia :

|      |    |    |    |    |    |    |    |    |    |    |    |    |   |    |
|------|----|----|----|----|----|----|----|----|----|----|----|----|---|----|
| Π 8  | 35 | 13 | 33 | 50 | 54 | 50 | 44 | 73 | 10 | 21 | 13 | 8  | 2 | -2 |
| Π 9  | 41 | 18 | 25 | 48 | 39 | 29 | 22 | 53 | 29 | 27 | 14 | -3 | 0 | 0  |
| Π 10 | 55 | 40 | 60 | 59 | 45 | 21 | 18 | 60 | 50 | 49 | 35 | 20 | 9 | 1  |

## A GLUCOSE ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 |

Infants of diabetic mothers :

|      |    |    |    |    |    |     |     |    |    |    |    |    |     |     |
|------|----|----|----|----|----|-----|-----|----|----|----|----|----|-----|-----|
| D 1  | 21 | 11 | 30 | 42 | 32 | 8   | 6   | 64 | 36 | 48 | 44 | 16 | -18 | -20 |
| *D 2 | 66 | 0  | 1  | 2  | 8  | - 3 | -14 | -  | -  | -  | -  | -  | -   | -   |
| *D 3 | 44 | 22 | 57 | 74 | 76 | 68  | 56  | 72 | 41 | 68 | 85 | 76 | 41  | 2   |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |    |    |    |    |    |    |    |    |   |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|
| S 1 | 48 | 13 | 18 | 46 | 60 | 59 | 44 | 67 | 8 | 20 | 27 | 39 | 40 | 46 |
|-----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|

\* Delivered by Caesarean section.

First day (within 2 to 3 hours after birth)

Eighth day

[illegible]

Full - term normal infants :

|      |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| N 1  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 2  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 3  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 4  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 5  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 6  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 7  | 5.1 | 4.5 | 4.2 | 4.1 | 4.5 | 4.2 | 4.2 | 4.2 | -   | -   |
| N 8  | 4.7 | 4.2 | 4.5 | 4.2 | 4.5 | 4.6 | 4.3 | 4.6 | 4.4 | 3.8 |
| N 9  | 5.5 | 5.1 | 5.0 | 5.2 | 5.2 | 4.8 | 5.0 | 4.6 | 4.4 | 3.7 |
| N 10 | 6.5 | 6.1 | 6.4 | 6.3 | 5.6 | 6.0 | 5.9 | 6.0 | 5.1 | 5.2 |

## INORGANIC PHOSPHORUS ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| N 11       | 4.7          | 4.0                                   | 4.2 | 3.5 | 3.5 | 3.5 | 3.1          | 6.0                                   | 5.6 | 5.7 | 5.5 | 5.9 | 6.0 | 5.7 |
| N 12       | 7.1          | 6.9                                   | 7.1 | 7.2 | 6.9 | 6.3 | 6.0          | 6.7                                   | 5.8 | 5.3 | 6.0 | 4.8 | 4.9 | 5.5 |
| N 13       | 6.5          | 5.3                                   | 5.4 | 4.9 | 5.7 | 5.2 | 5.9          | 5.4                                   | 4.3 | 4.7 | 3.9 | 4.6 | 5.4 | 5.4 |
| N 14       | 5.2          | 5.2                                   | 5.2 | 5.2 | 4.7 | 4.8 | 4.7          | 6.6                                   | 4.7 | 5.5 | 4.1 | 5.5 | 4.4 | 4.1 |
| N 15       | 4.7          | 3.9                                   | 4.1 | 4.1 | 4.2 | 4.4 | 4.1          | -                                     | -   | -   | -   | -   | -   | -   |
| N 16       | 5.4          | 5.3                                   | 5.3 | 5.3 | 5.2 | 5.2 | 5.2          | 5.5                                   | 4.8 | 4.5 | 4.7 | 5.2 | 5.2 | 5.5 |
| N 17       | 4.5          | 4.4                                   | 4.4 | 4.2 | 4.5 | 4.1 | 3.8          | 7.9                                   | 7.6 | 6.5 | 7.2 | 6.5 | 6.5 | 7.1 |

Healthy premature infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 3 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 4 | 6.7 | 6.6 | 5.5 | 6.0 | 6.2 | 6.5 | 6.5 | -   | -   | -   | -   | -   | -   | -   |
| P 5 | 5.6 | 5.3 | 5.3 | 5.1 | 5.3 | 4.9 | 5.5 | 4.7 | 4.4 | 4.1 | 4.6 | 4.7 | 4.7 | 4.4 |

## INORGANIC PHOSPHORUS ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| P 6        | 6.2          | 6.2                                   | 5.8 | 5.2 | 5.5 | 5.3 | 5.3          | 4.3                                   | 3.4 | 3.3 | 2.9 | 3.2 | 3.1 | 3.4 |
| P 7        | 5.3          | 5.0                                   | 5.0 | 4.7 | 3.9 | 4.1 | 4.8          | -                                     | -   | -   | -   | -   | -   | -   |
| P 8        | 5.6          | 5.5                                   | 5.2 | 5.2 | 5.2 | 5.0 | 4.7          | -                                     | -   | -   | -   | -   | -   | -   |
| P 9        | 5.5          | 4.7                                   | 3.7 | 4.4 | 4.5 | 4.2 | 4.2          | -                                     | -   | -   | -   | -   | -   | -   |
| P 10       | 5.4          | 4.8                                   | 4.6 | 4.6 | 5.2 | 4.9 | 5.0          | -                                     | -   | -   | -   | -   | -   | -   |
| P 11       | 4.6          | 4.4                                   | 4.2 | 3.8 | 4.0 | 3.8 | 2.5          | 3.8                                   | 3.5 | 3.6 | 3.3 | 3.3 | 3.1 | 3.7 |
| P 12       | 3.6          | 3.3                                   | 2.9 | 3.3 | 3.5 | 3.5 | 3.3          | -                                     | -   | -   | -   | -   | -   | -   |
| P 13       | 6.7          | 6.5                                   | 5.8 | 4.0 | 5.0 | 4.6 | 4.2          | 5.3                                   | 4.6 | 4.2 | 4.0 | 4.3 | 4.3 | 3.8 |
| P 14       | 5.2          | 4.6                                   | 4.5 | 4.6 | 4.9 | 5.1 | 5.2          | 5.4                                   | 5.2 | 5.1 | 5.1 | 4.9 | 4.7 | 4.9 |
| P 15       | 4.7          | 4.5                                   | 4.2 | 4.0 | 4.6 | 4.7 | 4.6          | 4.3                                   | 4.3 | 4.0 | 4.0 | 4.1 | 3.7 | 4.3 |

Healthy low birth weight infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 3 | 6.2 | 5.8 | 5.4 | 5.4 | 5.5 | 5.2 | 4.9 | 6.4 | 5.9 | 5.7 | 5.7 | 5.1 | 5.3 | 5.5 |

## INORGANIC PHOSPHORUS ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| L 4        | 6.8          | 6.4                                   | 6.0 | 6.1 | 5.9 | 5.9 | 5.8          | 5.9                                   | 5.1 | 5.0 | 5.4 | 5.3 | 5.5 | 5.7 |
| L 5        | 6.9          | 6.7                                   | 6.7 | 6.6 | 6.6 | 6.9 | 6.1          | 7.6                                   | 7.3 | 6.6 | 6.6 | 6.6 | 6.2 | 6.0 |
| L 6        | 7.1          | 6.0                                   | 6.2 | 6.2 | 6.1 | 6.4 | 5.5          | 6.0                                   | 5.5 | 4.5 | 5.0 | 5.1 | 5.4 | 5.4 |
| L 7        | 7.0          | 5.5                                   | 5.6 | 5.3 | 5.1 | 4.9 | 4.9          | 5.0                                   | 4.4 | 3.9 | 3.9 | 4.1 | 4.1 | 3.6 |
| L 8        | 6.9          | 6.8                                   | 6.5 | 6.5 | 6.9 | 6.6 | 6.3          | 4.9                                   | 4.0 | 3.7 | 3.7 | 4.1 | 3.6 | 3.7 |
| L 9        | 6.0          | 5.7                                   | 6.0 | 6.2 | 6.2 | 6.0 | 5.7          | 3.4                                   | 3.5 | 3.7 | 3.8 | 3.7 | 3.1 | 3.6 |
| L 10       | 5.0          | 5.5                                   | 4.7 | 4.5 | 4.3 | 4.5 | 4.6          | 5.5                                   | 5.6 | 5.0 | 5.1 | 5.2 | 5.3 | 5.5 |
| L 11       | 5.5          | 5.2                                   | 5.0 | 5.5 | 5.2 | 5.4 | 4.8          | -                                     | -   | -   | -   | -   | -   | -   |
| L 12       | 7.0          | 6.4                                   | 6.2 | 6.2 | 6.2 | 6.2 | 6.0          | -                                     | -   | -   | -   | -   | -   | -   |
| L 13       | 6.0          | 5.2                                   | 5.3 | 5.2 | 5.8 | 6.0 | 5.1          | 7.6                                   | 6.2 | 6.1 | 5.0 | 5.1 | 5.2 | 5.2 |
| L 14       | 3.7          | 3.4                                   | 3.3 | 3.4 | 3.2 | 3.2 | 3.5          | 4.1                                   | 3.7 | 3.8 | 2.6 | 3.1 | 3.6 | 3.7 |
| L 15       | 4.9          | 4.5                                   | 4.2 | 3.4 | 3.9 | 3.9 | 4.2          | 7.5                                   | 7.5 | 7.4 | 7.2 | 7.1 | 6.9 | 6.7 |

INORGANIC PHOSPHORUS ( CONTINUED )

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 |

Infants delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F 1 | 6.6 | 6.0 | 4.5 | 4.4 | 4.1 | 5.2 | 4.8 | 7.0 | 4.5 | 5.5 | 5.0 | 5.1 | 5.7 | 6.4 |
| F 2 | 3.9 | 3.9 | 3.8 | 3.3 | 3.8 | 3.4 | 3.0 | 7.4 | 4.8 | 4.1 | 5.1 | 4.9 | 5.1 | 5.1 |
| F 3 | 5.1 | 4.0 | 2.9 | 3.4 | 4.9 | 2.7 | 2.7 | 5.5 | 5.4 | 5.1 | 4.9 | 5.2 | 5.4 | 4.9 |
| F 4 | 5.6 | 5.3 | 4.9 | 5.0 | 4.7 | 4.9 | 3.6 | -   | -   | -   | -   | -   | -   | -   |
| F 5 | 5.6 | 5.5 | 5.6 | 5.5 | 5.5 | 5.8 | 4.8 | 4.7 | 4.7 | 4.5 | 4.5 | 3.9 | 4.4 | 4.4 |
| F 6 | 4.5 | 4.1 | 3.8 | 3.7 | 3.6 | 3.6 | 3.0 | 4.1 | 2.1 | 3.3 | 3.0 | 3.3 | 4.1 | 4.1 |
| F 7 | 5.3 | 5.1 | 4.7 | 4.7 | 4.9 | 4.8 | 5.1 | 3.4 | 2.7 | 2.7 | 2.5 | 2.7 | 2.6 | 2.9 |
| F 8 | 4.7 | 4.5 | 4.1 | 4.1 | 3.9 | 3.8 | 3.8 | 7.0 | 6.6 | 6.4 | 6.3 | 6.6 | 6.5 | 6.2 |

Infants delivered by Caesarean Section :  
( 300 µg./kg. glucagon on the first day )

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| G 1 | 4.2 | 4.0 | 3.5 | 3.7 | 4.0 | 4.0 | 4.1 | 6.0 | 5.2 | 4.9 | 4.7 | 5.0 | 5.4 | 5.1 |
| G 2 | 5.1 | 4.8 | 4.4 | 4.2 | 4.4 | 4.1 | 4.2 | 5.0 | 4.7 | 4.3 | 4.4 | 4.6 | 4.7 | 4.7 |
| G 3 | 6.0 | 5.3 | 5.1 | 4.9 | 4.7 | 4.6 | 4.4 | 3.9 | 3.2 | 3.0 | 3.4 | 3.2 | 3.4 | 3.9 |

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| C 4        | 6.0          | 5.9                                   | 5.9 | 5.4 | 5.0 | 4.6 | 4.7          | 4.8                                   | 4.5 | 4.3 | 4.3 | 4.3 | 4.7 | 4.4 |
| C 5        | 6.1          | 5.6                                   | 4.7 | 4.7 | 4.3 | 4.4 | 4.2          | 6.8                                   | 6.2 | 5.9 | 5.9 | 5.9 | 5.2 | 5.2 |
| C 6        | 6.4          | 5.9                                   | 5.4 | 5.5 | 5.0 | 5.4 | 5.4          | 5.7                                   | 5.3 | 4.8 | 4.6 | 4.7 | 4.6 | 4.6 |
| C 7        | 6.0          | 4.8                                   | 4.5 | 4.5 | 4.6 | 5.0 | 4.4          | -                                     | -   | -   | -   | -   | -   | -   |
| C 8        | 5.6          | 5.3                                   | 5.2 | 5.2 | 5.1 | 4.8 | 4.1          | 6.8                                   | 6.1 | 5.9 | 5.6 | 5.5 | 5.1 | 5.6 |
| *C 9       | 6.1          | 5.0                                   | 4.5 | 4.4 | 4.4 | 4.3 | 4.8          | 6.4                                   | 6.1 | 5.5 | 5.3 | 5.5 | 5.4 | 6.1 |
| *C 10      | 6.5          | 6.5                                   | 6.5 | 6.4 | 5.8 | 5.7 | 5.6          | 5.6                                   | 4.4 | 4.6 | 4.4 | 3.9 | 4.5 | 4.6 |

Full-term infants with maternal toxæmia :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| U 1 | 6.9 | 6.4 | 5.8 | 6.0 | 5.9 | 5.8 | 5.2 | 6.3 | 5.7 | 5.5 | 5.5 | 5.7 | 5.7 | 6.2 |
| U 2 | 6.4 | 6.2 | 6.0 | 6.0 | 5.9 | 5.7 | 5.2 | 4.1 | 3.4 | 2.8 | 3.5 | 3.7 | 3.8 | 3.9 |
| U 3 | 5.0 | 5.0 | 5.1 | 4.8 | 4.7 | 5.0 | 4.3 | -   | -   | -   | -   | -   | -   | -   |
| U 4 | 5.0 | 4.8 | 4.9 | 5.0 | 5.0 | 4.3 | 4.8 | 5.7 | 5.5 | 5.3 | 5.1 | 4.8 | 5.3 | 5.7 |
| U 5 | 6.5 | 6.3 | 6.1 | 6.4 | 5.8 | 5.8 | 5.1 | 7.7 | 7.7 | 7.3 | 7.0 | 7.5 | 7.0 | 7.0 |

\* Premature infants.

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 |

Infants with maternal toxemia delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Π 6 | 4.0 | 4.1 | 4.0 | 4.0 | 3.9 | 3.9 | 3.5 | -   | -   | -   | -   | -   | -   |
| Π 7 | 6.2 | 6.2 | 5.5 | 5.1 | 4.7 | 4.5 | 4.3 | 6.1 | 5.5 | 5.3 | 5.6 | 5.5 | 5.6 |

Premature infants with maternal toxemia :

|      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Π 8  | 5.3 | 4.6 | 4.6 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.7 | 3.3 | 3.9 | 3.7 | 4.1 | 3.5 |
| Π 9  | 5.8 | 5.6 | 5.4 | 5.0 | 5.0 | 5.4 | 5.4 | 3.3 | 2.1 | 2.3 | 2.7 | 2.9 | 3.5 | 3.5 |
| Π 10 | 6.5 | 5.4 | 5.4 | 5.0 | 5.6 | 5.8 | 5.4 | 5.6 | 4.8 | 4.6 | 5.4 | 5.4 | 5.6 | 5.6 |

Infants of diabetic mothers :

|      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| D 1  | 6.3 | 5.7 | 5.4 | 5.2 | 5.3 | 5.2 | 4.9 | 4.2 | 4.2 | 3.6 | 3.6 | 3.9 | 3.4 | 3.5 |
| *D 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| *D 3 | 5.5 | 4.6 | 4.5 | 4.2 | 4.0 | 3.9 | 3.5 | 5.9 | 4.1 | 4.2 | 4.3 | 4.7 | 5.1 | 5.7 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| S 1 | 2.3 | 2.3 | 2.0 | 2.0 | 2.0 | 2.2 | 2.0 | 7.1 | 6.7 | 6.6 | 6.6 | 6.4 | 6.5 | 6.5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

\* Delivered by Caesarean Section.

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. |    |    |    |     | Minutes after glucagon administration | Basal level. | Minutes after glucagon administration |    |    |    |     |
|------------|--------------|----|----|----|-----|---------------------------------------|--------------|---------------------------------------|----|----|----|-----|
|            | 20           | 40 | 60 | 90 | 120 |                                       |              | 20                                    | 40 | 60 | 90 | 120 |

Full-term normal infants :

|      |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| N 1  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 2  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 3  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 4  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 5  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 6  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| N 7  | 6.7 | 6.1 | 5.8 | 5.9 | 5.0 | 4.7 | 4.7 | -   | -   | -   | -   | -   | -   |
| N 8  | 4.9 | 5.0 | 4.9 | 4.8 | 5.2 | 4.8 | 4.9 | 4.9 | 4.5 | 4.7 | 4.8 | 4.5 | 4.5 |
| N 9  | 4.9 | 4.2 | 4.7 | 4.7 | 4.6 | 4.8 | 5.0 | 4.9 | 4.7 | 4.0 | 4.1 | 4.2 | 4.3 |
| N 10 | -   | -   | -   | -   | -   | -   | -   | 5.6 | 4.8 | 4.8 | 5.7 | 5.7 | 5.8 |
| N 11 | 4.8 | 4.8 | 4.1 | 4.3 | 4.5 | 3.6 | 3.7 | 4.2 | 3.7 | 3.9 | 4.0 | 4.3 | 3.6 |
| N 12 | 4.0 | 3.8 | 3.3 | 3.3 | 3.8 | 3.6 | 4.0 | 3.3 | 3.1 | 3.3 | 3.3 | 3.2 | 3.3 |
| N 13 | 5.3 | 4.8 | 4.9 | 4.7 | 4.7 | 4.8 | 5.2 | 5.3 | 4.3 | 4.0 | 3.7 | 3.9 | 4.5 |

First day ( within 2 to 3 hours after birth )Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 | 150          |                                       | 20  | 40  | 60  | 90  | 120 | 150 |
| N 14       | 3.9          | 3.6                                   | 3.5 | 3.4 | 3.5 | 3.5 | 3.6          | 2.7                                   | 2.5 | 2.2 | 2.3 | 2.6 | 2.7 | 2.2 |
| N 15       | 5.9          | 6.0                                   | 5.9 | 5.6 | 4.9 | 5.3 | 5.2          | -                                     | -   | -   | -   | -   | -   | -   |
| N 16       | 4.5          | 4.3                                   | 4.5 | 4.0 | 4.3 | 4.3 | 4.5          | 5.0                                   | 4.7 | 4.4 | 4.1 | 4.6 | 4.7 | 4.9 |
| N 17       | 5.3          | 4.7                                   | 4.5 | 4.7 | 4.8 | 4.4 | 3.7          | 5.6                                   | 3.7 | 3.9 | 4.2 | 3.5 | 3.5 | 3.8 |

Healthy premature infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 3 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 4 | 5.6 | 5.5 | 5.0 | 5.3 | 5.7 | 5.6 | 5.8 | -   | -   | -   | -   | -   | -   | -   |
| P 5 | 5.7 | 5.4 | 5.3 | 5.2 | 4.9 | 5.3 | 5.5 | 3.9 | 3.4 | 3.6 | 3.6 | 3.8 | 3.5 | 3.5 |
| P 6 | 5.7 | 5.4 | 5.1 | 5.2 | 5.3 | 5.2 | 5.3 | 4.8 | 4.5 | 4.3 | 5.2 | 3.2 | 2.8 | 4.3 |
| P 7 | 4.9 | 4.6 | 3.9 | 3.9 | 4.0 | 4.1 | 4.2 | -   | -   | -   | -   | -   | -   | -   |
| P 8 | 5.1 | 4.7 | 4.4 | 4.7 | 4.0 | 4.9 | 5.1 | -   | -   | -   | -   | -   | -   | -   |
| P 9 | 4.8 | 4.7 | 4.5 | 4.4 | 3.7 | 3.7 | 3.7 | -   | -   | -   | -   | -   | -   | -   |

First day ( within 2 to 3 hours after birth )

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 |
| P 10       | 5.2          | 4.5                                   | 4.4 | 4.0 | 4.6 | 4.6 | 4.7          | -                                     | -   | -   | -   | -   | -   |
| P 11       | 5.2          | 4.7                                   | 4.8 | 4.7 | 4.7 | 4.8 | 4.8          | 3.8                                   | 3.8 | 3.4 | 3.5 | 3.5 | 3.6 |
| P 12       | 6.0          | 5.8                                   | 5.7 | 5.5 | 5.7 | 5.6 | 6.0          | -                                     | -   | -   | -   | -   | -   |
| P 13       | 5.6          | 5.6                                   | 5.4 | 5.4 | 5.1 | 5.1 | 5.2          | 4.6                                   | 4.2 | 4.2 | 3.7 | 4.1 | 4.3 |
| P 14       | 6.8          | 6.7                                   | 6.7 | 6.6 | 6.1 | 6.1 | 6.6          | 3.8                                   | 3.7 | 3.8 | 3.4 | 3.1 | 3.8 |
| P 15       | 5.4          | 5.2                                   | 5.1 | 5.0 | 4.9 | 5.0 | 5.4          | 4.0                                   | 4.0 | 3.8 | 4.0 | 3.9 | 3.9 |

Healthy low birth weight infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 3 | 5.1 | 4.8 | 4.5 | 5.0 | 4.9 | 5.1 | 5.2 | 4.8 | 4.8 | 4.3 | 4.4 | 4.4 | 4.6 |
| L 4 | 5.8 | 5.7 | 5.7 | 5.6 | 5.9 | 6.0 | 5.8 | 4.7 | 4.0 | 4.0 | 4.3 | 4.6 | 4.8 |
| L 5 | 6.7 | 6.2 | 5.9 | 6.2 | 6.5 | 6.0 | 5.7 | 5.2 | 4.6 | 4.5 | 5.2 | 5.1 | 4.3 |
| L 6 | 5.4 | 4.2 | 3.8 | 4.0 | 4.2 | 4.5 | 4.6 | 5.9 | 4.4 | 4.1 | 4.0 | 3.9 | 4.8 |
| L 7 | -   | -   | -   | -   | -   | -   | -   | 5.0 | 4.4 | 4.2 | 4.2 | 4.4 | 4.6 |

## POTASSIUM ( CONTINUED )

First day (with 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| L 8        | 6.1          | 5.0                                   | 4.8 | 5.3 | 5.7 | 5.3 | 5.5          | 4.7                                   | 3.7 | 3.2 | 3.4 | 4.2 | 3.2 | 3.2 |
| L 9        | 6.5          | 6.3                                   | 5.7 | 5.3 | 5.3 | 5.3 | 5.8          | 3.0                                   | 2.3 | 2.3 | 2.0 | 2.1 | 2.1 | 2.7 |
| L 10       | 6.3          | 5.9                                   | 5.5 | 5.1 | 5.6 | 5.8 | 6.4          | 4.4                                   | 4.0 | 4.7 | 4.7 | 4.4 | 4.6 | 4.6 |
| L 11       | 6.0          | 6.0                                   | 6.0 | 5.8 | 4.8 | 4.8 | 5.0          | -                                     | -   | -   | -   | -   | -   | -   |
| L 12       | 4.7          | 4.4                                   | 4.5 | 4.8 | 5.0 | 5.0 | 5.0          | -                                     | -   | -   | -   | -   | -   | -   |
| L 13       | 4.6          | 4.2                                   | 4.2 | 3.9 | 4.5 | 4.6 | 4.7          | 4.3                                   | 4.1 | 4.1 | 4.1 | 3.8 | 3.2 | 3.5 |
| L 14       | 4.8          | 4.6                                   | 4.6 | 4.3 | 4.4 | 4.3 | 4.6          | 4.6                                   | 4.1 | 3.3 | 3.3 | 3.7 | 3.6 | 4.2 |
| L 15       | 4.7          | 4.0                                   | 4.4 | 4.1 | 4.1 | 4.7 | 4.8          | 3.6                                   | 3.2 | 3.2 | 3.3 | 3.3 | 3.5 | 3.1 |

Infants delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F 1 | 5.9 | 5.3 | 4.7 | 5.2 | 4.7 | 4.6 | 4.3 | 3.7 | 3.2 | 2.7 | 2.6 | 2.8 | 3.3 | 3.7 |
| F 2 | 5.5 | 5.3 | 5.1 | 5.1 | 4.8 | 4.9 | 4.9 | 4.3 | 4.0 | 4.0 | 3.4 | 3.5 | 4.0 | 4.3 |
| F 3 | 4.0 | 3.8 | 3.8 | 3.2 | 3.5 | 3.8 | 4.0 | 4.5 | 4.3 | 3.7 | 3.7 | 3.5 | 4.1 | 4.0 |
| F 4 | 4.3 | 4.3 | 4.3 | 4.2 | 4.1 | 3.9 | 3.9 | -   | -   | -   | -   | -   | -   | -   |
| F 5 | 3.8 | 3.8 | 3.7 | 3.5 | 3.4 | 3.4 | 3.8 | 2.6 | 2.2 | 2.0 | 2.2 | 2.6 | 2.4 | 2.4 |

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| F 6        | 4.5          | 4.2                                   | 4.4 | 4.4 | 4.3 | 4.3 | 4.3          | 4.5                                   | 4.4 | 3.7 | 3.9 | 3.4 | 3.2 | 3.6 |
| F 7        | 6.0          | 5.9                                   | 5.6 | 5.4 | 5.6 | 5.7 | 5.9          | 4.7                                   | 4.3 | 3.9 | 4.4 | 4.4 | 4.3 | 4.1 |
| F 8        | 4.1          | 4.0                                   | 4.0 | 4.0 | 4.0 | 3.8 | 3.7          | 4.4                                   | 3.5 | 3.1 | 3.1 | 3.3 | 3.3 | 3.7 |

Infants delivered by Caesarean section :

( 300 µg./kg. glucagon on the first day )

|       |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| G 1   | 5.3 | 5.2 | 5.2 | 5.1 | 5.0 | 5.0 | 5.1 | 4.9 | 3.3 | 3.3 | 3.3 | 3.6 | 3.9 | 4.5 |
| G 2   | 5.3 | 5.0 | 4.3 | 4.2 | 4.0 | 3.8 | 4.3 | 5.1 | 4.9 | 4.0 | 4.4 | 4.5 | 4.9 | 5.3 |
| G 3   | 5.3 | 5.2 | 4.9 | 4.7 | 4.8 | 5.0 | 4.9 | 4.3 | 3.7 | 3.6 | 3.7 | 3.7 | 2.8 | 4.3 |
| G 4   | 5.5 | 5.3 | 5.2 | 4.9 | 4.8 | 4.5 | 4.8 | 4.9 | 4.5 | 4.6 | 4.4 | 4.4 | 4.3 | 4.5 |
| G 5   | 5.7 | 5.5 | 5.4 | 5.3 | 5.1 | 4.9 | 4.7 | 4.3 | 3.7 | 2.4 | 2.4 | 3.2 | 2.8 | 3.5 |
| G 6   | 5.6 | 5.6 | 4.8 | 4.3 | 4.7 | 4.7 | 4.9 | 4.9 | 4.7 | 4.1 | 4.1 | 4.5 | 4.5 | 4.6 |
| G 7   | 5.8 | 5.8 | 5.7 | 5.7 | 5.4 | 5.4 | 5.3 | -   | -   | -   | -   | -   | -   | -   |
| G 8   | 4.4 | 4.2 | 3.6 | 3.9 | 3.7 | 3.7 | 3.9 | 3.3 | 3.1 | 2.7 | 2.9 | 3.1 | 2.9 | 2.9 |
| *G 9  | 4.7 | 4.5 | 4.2 | 4.1 | 4.3 | 4.1 | 4.0 | 4.7 | 4.3 | 4.1 | 4.0 | 3.8 | 3.4 | 4.3 |
| *G 10 | 5.4 | 4.9 | 5.0 | 4.7 | 4.3 | 4.8 | 4.8 | 4.7 | 4.2 | 4.0 | 4.1 | 4.5 | 4.7 | 4.7 |

\* Premature infants

## POTASSIUM ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No.                                                              | Basal Level. | Minutes after glucagon administration |     |     |     |     | Basal Level. | Minutes after glucagon administration |     |     |     |     |     |     |
|-------------------------------------------------------------------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|                                                                         |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| <u>Full - term infants with maternal toxemia :</u>                      |              |                                       |     |     |     |     |              |                                       |     |     |     |     |     |     |
| T 1                                                                     | 6.9          | 6.1                                   | 6.1 | 6.4 | 6.4 | 6.0 | 6.5          | 5.0                                   | 3.8 | 3.6 | 4.1 | 4.4 | 4.4 | 4.6 |
| T 2                                                                     | 4.6          | 4.4                                   | 4.1 | 3.9 | 3.8 | 3.8 | 4.0          | 3.5                                   | 3.3 | 2.9 | 2.9 | 2.7 | 2.9 | 3.1 |
| T 3                                                                     | 5.6          | 5.6                                   | 5.2 | 5.5 | 5.6 | 5.5 | 5.3          | Re                                    | -   | -   | -   | -   | -   | -   |
| T 4                                                                     | 5.4          | 5.3                                   | 4.9 | 4.8 | 4.9 | 4.8 | 5.0          | 4.0                                   | 3.3 | 2.9 | 3.7 | 3.6 | 3.5 | 3.8 |
| T 5                                                                     | 5.2          | 5.0                                   | 4.8 | 4.5 | 4.2 | 4.8 | 5.0          | 3.9                                   | 3.5 | 3.3 | 3.3 | 3.2 | 3.1 | 3.0 |
| <u>Infants with maternal toxemia delivered by forceps application :</u> |              |                                       |     |     |     |     |              |                                       |     |     |     |     |     |     |
| T 6                                                                     | 5.6          | 5.5                                   | 5.4 | 4.4 | 4.1 | 4.5 | 4.6          | -                                     | -   | -   | -   | -   | -   | -   |
| T 7                                                                     | 4.8          | 4.5                                   | 4.2 | 4.2 | 4.2 | 4.9 | 4.9          | 4.1                                   | 3.9 | 3.5 | 3.5 | 3.6 | 3.8 | 4.0 |
| <u>Premature infants with maternal toxemia :</u>                        |              |                                       |     |     |     |     |              |                                       |     |     |     |     |     |     |
| T 8                                                                     | 5.3          | 5.3                                   | 5.1 | 4.9 | 5.0 | 4.8 | 5.0          | 2.6                                   | 2.1 | 2.0 | 1.8 | 2.0 | 2.5 | 2.6 |
| T 9                                                                     | 6.0          | 6.0                                   | 5.8 | 5.6 | 5.6 | 5.8 | 6.0          | 4.0                                   | 3.9 | 3.5 | 3.7 | 3.3 | 3.6 | 3.7 |
| T 10                                                                    | 5.5          | 5.2                                   | 5.0 | 4.4 | 4.4 | 4.5 | 4.5          | 4.0                                   | 3.6 | 3.3 | 3.3 | 2.8 | 3.5 | 3.5 |

POTASSIUM ( CONTINUED )

First day ( within 2 to 3 hours after birth )

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| D 1        | 7.3          | 7.2                                   | 7.1 | 7.0 | 6.9 | 7.1 | 7.2          | 6.0                                   | 5.4 | 5.5 | 5.6 | 5.8 | 5.8 | 6.0 |
| *D 2       | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   | -   |
| *D 3       | 5.1          | 4.7                                   | 4.3 | 4.0 | 4.3 | 4.6 | 4.7          | 5.2                                   | 4.4 | 4.1 | 3.6 | 4.3 | 4.1 | 4.4 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| S 1 | 5.8 | 5.6 | 5.5 | 5.4 | 5.3 | 5.3 | 5.4 | 4.7 | 4.7 | 4.7 | 4.4 | 4.5 | 4.1 | 4.4 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

\* Delivered by Caesarean Section.

UREA (mg./100 ml.)

First day (within 2 to 3 hours after birth)Fifth day

| Infant No.                   | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |
|------------------------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|
|                              |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 | 120 |
| Full - term normal infants : |              |                                       |    |    |    |     |              |                                       |    |    |    |    |     |
| N 1                          | -            | -                                     | -  | -  | -  | -   | -            | -                                     | -  | -  | -  | -  | -   |
| N 2                          | -            | -                                     | -  | -  | -  | -   | -            | -                                     | -  | -  | -  | -  | -   |
| N 3                          | -            | -                                     | -  | -  | -  | -   | -            | -                                     | -  | -  | -  | -  | -   |
| N 4                          | -            | -                                     | -  | -  | -  | -   | -            | -                                     | -  | -  | -  | -  | -   |
| N 5                          | -            | -                                     | -  | -  | -  | -   | -            | -                                     | -  | -  | -  | -  | -   |
| N 6                          | -            | -                                     | -  | -  | -  | -   | -            | -                                     | -  | -  | -  | -  | -   |
| N 7                          | 21           | 22                                    | 25 | 27 | 25 | 21  | 22           | -                                     | -  | -  | -  | -  | -   |
| N 8                          | 23           | 26                                    | 25 | 30 | 35 | 36  | 38           | 22                                    | 26 | 27 | 30 | 27 | 29  |
| N 9                          | 25           | 28                                    | 27 | 30 | 27 | 31  | 34           | 20                                    | 20 | 25 | 24 | 27 | 26  |
| N 10                         | 14           | 18                                    | 18 | 16 | 16 | 22  | 18           | 23                                    | 23 | 23 | 22 | 24 | 24  |
| N 11                         | 21           | 20                                    | 23 | 23 | 23 | 25  | 24           | 44                                    | 46 | 46 | 48 | 47 | 48  |
| N 12                         | 19           | 19                                    | 21 | 21 | 22 | 21  | 23           | 19                                    | 21 | 21 | 22 | 23 | 21  |
| N 13                         | 18           | 20                                    | 21 | 20 | 22 | 23  | 23           | 8                                     | 9  | 9  | 8  | 12 | 11  |

First day (within 2 to 3 hours after birth)

UREA (CONTINUED)

Eighth day

| Infant No. | Basal Level. | Minutes after glucagon administration |    |    |    |     |     | Basal Level. | Minutes after glucagon administration |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|-----|--------------|---------------------------------------|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150 |              | 20                                    | 40 | 60 | 90 | 120 | 150 |
| N 14       | 28           | 29                                    | 29 | 30 | 31 | 31  | 31  | 26           | 30                                    | 25 | 26 | 26 | 26  | 28  |
| N 15       | 14           | 16                                    | 18 | 18 | 18 | 18  | 18  | -            | -                                     | -  | -  | -  | -   | -   |
| N 16       | 21           | 23                                    | 27 | 24 | 26 | 27  | 27  | 18           | 20                                    | 18 | 18 | 18 | 18  | 17  |
| N 17       | 27           | 27                                    | 26 | 27 | 27 | 27  | 29  | 12           | 15                                    | 15 | 16 | 17 | 17  | 17  |

Healthy premature infants:

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| P 1 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| P 2 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| P 3 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| P 4 | 23 | 24 | 29 | 30 | 35 | 35 | 34 | -  | -  | -  | -  | -  | -  |
| P 5 | 26 | 26 | 29 | 31 | 28 | 29 | 29 | 22 | 22 | 24 | 26 | 23 | 24 |
| P 6 | 18 | 20 | 20 | 25 | 22 | 22 | 22 | 15 | 21 | 21 | 18 | 23 | 25 |
| P 7 | 14 | 15 | 20 | 22 | 25 | 24 | 24 | -  | -  | -  | -  | -  | -  |
| P 8 | 20 | 25 | 22 | 25 | 22 | 23 | 25 | -  | -  | -  | -  | -  | -  |
| P 9 | 21 | 27 | 31 | 32 | 32 | 37 | 37 | -  | -  | -  | -  | -  | -  |

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     |     | Basal level. | Minutes after glucagon administration |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|-----|--------------|---------------------------------------|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150 |              | 20                                    | 40 | 60 | 90 | 120 | 150 |
| P 10       | 25           | 25                                    | 25 | 26 | 27 | 28  | 28  | -            | -                                     | -  | -  | -  | -   |     |
| P 11       | 36           | 37                                    | 42 | 42 | 43 | 45  | 45  | 24           | 33                                    | 31 | 30 | 31 | 33  |     |
| P 12       | 27           | 29                                    | 30 | 30 | 35 | 36  | 36  | -            | -                                     | -  | -  | -  | -   |     |
| P 13       | 19           | 23                                    | 22 | 22 | 22 | 24  | 24  | 12           | 19                                    | 19 | 20 | 21 | 16  |     |
| P 14       | 22           | 23                                    | 24 | 22 | 20 | 22  | 22  | 29           | 29                                    | 30 | 30 | 29 | 33  |     |
| P 15       | 14           | 15                                    | 16 | 16 | 16 | 15  | 16  | 23           | 23                                    | 25 | 26 | 27 | 27  |     |

Health low birth weight infants :

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| L 1 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| L 2 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| L 3 | 13 | 17 | 17 | 19 | 23 | 22 | 19 | 20 | 21 | 22 | 25 | 27 | 22 |
| L 4 | 9  | 9  | 15 | 15 | 17 | 19 | 21 | 13 | 15 | 18 | 17 | 21 | 25 |
| L 5 | 7  | 12 | 10 | 12 | 9  | 12 | 9  | 8  | 8  | 10 | 12 | 13 | 12 |
| L 6 | 17 | 18 | 16 | 19 | 22 | 17 | 18 | 38 | 41 | 42 | 43 | 40 | 46 |
| L 7 | 18 | 18 | 21 | 23 | 22 | 23 | 28 | 32 | 37 | 36 | 35 | 37 | 37 |

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 | 120 | 150 |
| L 8        | 27           | 30                                    | 33 | 32 | 33 | 33  | 34           | 18                                    | 19 | 20 | 23 | 26 | 24  | 22  |
| L 9        | 29           | 30                                    | 31 | 31 | 33 | 33  | 36           | 7                                     | 9  | 9  | 14 | 12 | 12  | 13  |
| L 10       | 22           | 24                                    | 25 | 27 | 28 | 31  | 28           | 8                                     | 8  | 12 | 12 | 13 | 14  | 14  |
| L 11       | 7            | 8                                     | 10 | 11 | 12 | 18  | 18           | -                                     | -  | -  | -  | -  | -   | -   |
| L 12       | 27           | 29                                    | 31 | 32 | 32 | 32  | 34           | -                                     | -  | -  | -  | -  | -   | -   |
| L 13       | 26           | 27                                    | 29 | 30 | 30 | 30  | 30           | 21                                    | 22 | 21 | 21 | 22 | 22  | 26  |
| L 14       | 14           | 17                                    | 19 | 21 | 22 | 23  | 22           | 10                                    | 14 | 16 | 12 | 14 | 16  | 14  |
| L 15       | 18           | 18                                    | 18 | 24 | 24 | 25  | 24           | 24                                    | 24 | 25 | 25 | 32 | 32  | 24  |

Infants delivered by forceps application :

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| F 1 | 22 | 25 | 27 | 25 | 26 | 32 | 31 | 9  | 12 | 13 | 14 | 12 | 12 | 17 |
| F 2 | 23 | 25 | 30 | 30 | 30 | 32 | 30 | 15 | 17 | 20 | 20 | 17 | 17 | 18 |
| F 3 | 23 | 25 | 27 | 27 | 27 | 27 | 25 | 20 | 21 | 20 | 22 | 21 | 23 | 26 |
| F 4 | 22 | 22 | 27 | 27 | 28 | 29 | 27 | -  | -  | -  | -  | -  | -  | -  |
| F 5 | 21 | 25 | 25 | 27 | 27 | 27 | 30 | 23 | 23 | 23 | 23 | 23 | 23 | 25 |

First day ( within 2 to 3 hours after birth )Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 | 120 | 150 |
| F 6        | 38           | 39                                    | 40 | 40 | 38 | 38  | 36           | 19                                    | 21 | 21 | 28 | 24 | 25  | 22  |
| F 7        | 22           | 23                                    | 24 | 24 | 25 | 25  | 25           | 24                                    | 24 | 24 | 24 | 30 | 36  | 33  |
| F 8        | 68           | 70                                    | 70 | 74 | 72 | 70  | 68           | 20                                    | 23 | 28 | 30 | 31 | 31  | 29  |

Infants delivered by Caesarean Section :  
( 300 µg./kg. glucagon on the first day )

|       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| G 1   | 29 | 32 | 32 | 33 | 32 | 36 | 34 | 11 | 11 | 12 | 13 | 13 | 17 | 22 |
| G 2   | 17 | 22 | 21 | 25 | 26 | 26 | 29 | 20 | 24 | 25 | 23 | 23 | 23 | 25 |
| G 3   | 23 | 24 | 25 | 26 | 26 | 24 | 24 | 18 | 18 | 19 | 20 | 21 | 21 | 24 |
| G 4   | 24 | 25 | 24 | 27 | 30 | 26 | 32 | 20 | 22 | 22 | 24 | 26 | 27 | 26 |
| G 5   | 16 | 18 | 18 | 20 | 22 | 25 | 25 | 8  | 10 | 10 | 10 | 16 | 15 | 15 |
| G 6   | 22 | 24 | 24 | 24 | 26 | 24 | 30 | 19 | 20 | 20 | 21 | 22 | 22 | 22 |
| G 7   | 26 | 28 | 28 | 32 | 30 | 30 | 32 | -  | -  | -  | -  | -  | -  | -  |
| G 8   | 23 | 26 | 28 | 31 | 32 | 33 | 32 | 12 | 15 | 15 | 15 | 17 | 16 | 15 |
| *G 9  | 16 | 19 | 19 | 19 | 22 | 22 | 25 | 16 | 16 | 16 | 17 | 20 | 18 | 19 |
| *G 10 | 11 | 16 | 17 | 17 | 21 | 19 | 19 | 18 | 17 | 20 | 25 | 23 | 27 | 28 |

\* Premature infants

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No.                                                              | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |     |
|-------------------------------------------------------------------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|-----|
|                                                                         |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 | 120 | 150 |
| <u>Full - term infants with maternal toxæmia :</u>                      |              |                                       |    |    |    |     |              |                                       |    |    |    |    |     |     |
| 1                                                                       | 16           | 17                                    | 20 | 17 | 20 | 19  | 22           | 11                                    | 14 | 15 | 15 | 15 | 17  | 20  |
| 2                                                                       | 26           | 34                                    | 37 | 36 | 38 | 36  | 36           | 21                                    | 22 | 25 | 25 | 25 | 25  | 26  |
| 3                                                                       | 43           | 47                                    | 45 | 45 | 46 | 47  | 47           | -                                     | -  | -  | -  | -  | -   | -   |
| 4                                                                       | 20           | 22                                    | 20 | 25 | 24 | 24  | 25           | 20                                    | 22 | 23 | 22 | 23 | 24  | 25  |
| 5                                                                       | 32           | 34                                    | 35 | 38 | 42 | 42  | 43           | 25                                    | 25 | 31 | 33 | 33 | 33  | 33  |
| <u>Infants with maternal toxæmia delivered by forceps application :</u> |              |                                       |    |    |    |     |              |                                       |    |    |    |    |     |     |
| 6                                                                       | 36           | 36                                    | 36 | 36 | 36 | 36  | 36           | -                                     | -  | -  | -  | -  | -   | -   |
| 7                                                                       | 39           | 40                                    | 40 | 40 | 41 | 41  | 41           | 28                                    | 31 | 37 | 40 | 42 | 42  | 42  |
| <u>Premature infants with maternal toxæmia :</u>                        |              |                                       |    |    |    |     |              |                                       |    |    |    |    |     |     |
| 8                                                                       | 18           | 19                                    | 22 | 23 | 25 | 26  | 26           | 60                                    | 59 | 60 | 65 | 63 | 68  | 70  |
| 9                                                                       | 12           | 12                                    | 12 | 12 | 15 | 14  | 16           | 17                                    | 20 | 22 | 22 | 21 | 22  | 22  |
| 10                                                                      | 31           | 32                                    | 33 | 33 | 36 | 33  | 31           | 25                                    | 25 | 24 | 24 | 25 | 24  | 25  |

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal Level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|
|            |              | 20                                    | 40 | 60 | 90 | 120 |              | 150                                   | 20 | 40 | 60 | 90 |

Infants of diabetic mothers :

|      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| D 1  | 25 | 28 | 30 | 28 | 26 | 30 | 27 | 41 | 44 | 47 | 47 | 51 | 51 | 47 |
| *D 2 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| *D 3 | 15 | 16 | 17 | 16 | 17 | 19 | 18 | 16 | 19 | 18 | 16 | 17 | 17 | 16 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| S 1 | 14 | 15 | 16 | 16 | 17 | 18 | 17 | 85 | 80 | 83 | 80 | 83 | 84 | 85 |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|

\* Delivered by Caesarean Section.

Eighth day

| Infant No.                   | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |
|------------------------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|
|                              |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 |
| Full - term normal infants : |              |                                       |     |     |     |     |              |                                       |     |     |     |     |     |
| N 1                          | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   |
| N 2                          | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   |
| N 3                          | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   |
| N 4                          | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   |
| N 5                          | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   |
| N 6                          | -            | -                                     | -   | -   | -   | -   | -            | -                                     | -   | -   | -   | -   | -   |
| N 7                          | 6.7          | 5.9                                   | 1.5 | 2.6 | 1.5 | 2.2 | 3.7          | -                                     | -   | -   | -   | -   | -   |
| N 8                          | 3.6          | 2.5                                   | 2.0 | 2.3 | 2.3 | 2.4 | 1.7          | 3.8                                   | 1.7 | 2.3 | 2.8 | 2.3 | 2.5 |
| N 9                          | 7.0          | 6.3                                   | 5.0 | 3.9 | 4.3 | 3.5 | 6.3          | 5.6                                   | 5.2 | 4.8 | 4.1 | 1.9 | 1.9 |
| N 10                         | 8.6          | 7.8                                   | 5.7 | 5.8 | 5.1 | 5.5 | 4.5          | 5.3                                   | 4.5 | 2.9 | 2.6 | 1.8 | 2.8 |
| N 11                         | 6.9          | 5.7                                   | 4.5 | 5.7 | 6.2 | 6.6 | 6.8          | 5.0                                   | 3.6 | 3.0 | 4.3 | 3.3 | 3.4 |
| N 12                         | 5.6          | 4.3                                   | 4.3 | 3.1 | 3.6 | 4.0 | 4.1          | 5.2                                   | 4.7 | 3.9 | 4.7 | 4.1 | 4.1 |
| N 13                         | 5.9          | 4.9                                   | 4.3 | 4.1 | 3.3 | 5.3 | 4.3          | 2.7                                   | 2.5 | 2.8 | 2.7 | 1.1 | 1.9 |

## TOTAL AMINO ACID NITROGEN ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| N 14       | 3.6          | 2.5                                   | 2.7 | 3.1 | 1.9 | 2.2 | 1.9          | 3.6                                   | 2.9 | 2.8 | 2.9 | 3.6 | 2.9 | 2.3 |
| N 15       | 3.9          | 1.2                                   | 0.9 | 0.6 | 1.7 | 2.8 | 1.2          | -                                     | -   | -   | -   | -   | -   | -   |
| N 16       | 6.1          | 2.7                                   | 3.6 | 3.3 | 3.4 | 2.7 | 4.0          | 3.6                                   | 3.0 | 2.7 | 2.7 | 2.7 | 2.0 | 1.4 |
| N 17       | 4.7          | 4.7                                   | 4.5 | 3.0 | 3.4 | 4.8 | 3.7          | 3.1                                   | 2.8 | 2.5 | 3.6 | 3.6 | 2.8 | 3.0 |

Healthy premature infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 3 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 4 | 7.6 | 7.1 | 3.3 | 4.8 | 7.1 | 5.2 | 6.0 | -   | -   | -   | -   | -   | -   | -   |
| P 5 | 6.4 | 5.9 | 5.2 | 4.1 | 4.5 | 5.0 | 6.0 | 3.7 | 1.7 | 2.2 | 2.2 | 3.0 | 2.2 | 1.9 |
| P 6 | 4.8 | 4.1 | 3.6 | 2.5 | 2.0 | 4.0 | 3.5 | 6.0 | 2.5 | 5.7 | 6.5 | 6.0 | 4.6 | 6.2 |
| P 7 | 5.1 | 5.1 | 4.6 | 2.8 | 2.8 | 3.5 | 2.8 | -   | -   | -   | -   | -   | -   | -   |
| P 8 | 6.5 | 4.9 | 4.9 | 4.1 | 3.4 | 3.5 | 3.9 | -   | -   | -   | -   | -   | -   | -   |
| P 9 | 2.8 | 2.2 | 2.3 | 2.5 | 2.5 | 2.3 | 2.3 | -   | -   | -   | -   | -   | -   | -   |

## TOTAL AMINO ACID NITROGEN. (CONTINUED)

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level | Minutes after glucagon administration |     |     |     |     | Basal level | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|-------------|---------------------------------------|-----|-----|-----|-----|-------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |             | 20                                    | 40  | 60  | 90  | 120 |             | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| P 10       | 6.4         | 5.0                                   | 3.5 | 3.9 | 3.6 | 4.3 | 4.8         | -                                     | -   | -   | -   | -   | -   |     |
| P 11       | 7.2         | 4.5                                   | 6.0 | 6.0 | 6.0 | 6.7 | 4.5         | 4.8                                   | 4.6 | 3.1 | 3.2 | 5.2 | 3.9 | 3.2 |
| P 12       | 4.7         | 4.2                                   | 3.0 | 3.0 | 5.0 | 3.7 | 3.7         | -                                     | -   | -   | -   | -   | -   | -   |
| P 13       | 5.5         | 4.6                                   | 4.1 | 4.5 | 5.0 | 3.6 | 4.0         | 7.5                                   | 6.0 | 4.2 | 3.7 | 3.7 | 5.1 | 5.1 |
| P 14       | 8.3         | 5.8                                   | 6.0 | 5.9 | 8.0 | 7.9 | 6.7         | 4.9                                   | 4.7 | 3.8 | 3.6 | 2.4 | 2.3 | 3.0 |
| P 15       | 7.2         | 5.6                                   | 4.9 | 5.0 | 6.1 | 5.8 | 6.5         | 2.9                                   | 1.5 | 2.0 | 1.4 | 1.9 | 2.7 | 2.8 |

## Healthy low birth weight infants:

|     |      |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L 1 | -    | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 2 | -    | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 3 | 8.7  | 8.4 | 8.1 | 8.1 | 8.1 | 9.0 | 9.3 | 5.9 | 3.0 | 3.7 | 2.6 | 1.5 | 0.7 | 1.5 |
| L 4 | 10.6 | 9.4 | 8.7 | 5.5 | 7.4 | 7.0 | 7.4 | 3.7 | 2.6 | 3.0 | 3.3 | 1.1 | 1.1 | 0.7 |
| L 5 | 4.8  | 3.9 | 4.8 | 4.8 | 3.2 | 2.9 | 4.7 | 3.3 | 2.2 | 1.7 | 1.8 | 1.5 | 2.7 | 2.7 |
| L 6 | 4.7  | 2.6 | 2.9 | 3.1 | 2.6 | 3.0 | 2.6 | 4.1 | 4.1 | 3.5 | 2.4 | 2.9 | 2.8 | 3.8 |
| L 7 | 5.6  | 5.6 | 5.4 | 5.2 | 5.9 | 5.7 | 1.8 | 6.6 | 4.7 | 4.2 | 3.5 | 3.5 | 2.0 | 1.4 |

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| L 8        | 4.2          | 3.4                                   | 2.1 | 3.6 | 3.9 | 3.6 | 2.7          | 4.1                                   | 4.1 | 3.7 | 3.9 | 3.7 | 3.8 | 4.1 |
| L 9        | 3.0          | 2.6                                   | 2.2 | 1.6 | 1.7 | 2.1 | 1.6          | 3.9                                   | 5.0 | 4.1 | 4.1 | 4.2 | 3.0 | 3.7 |
| L 10       | 7.0          | 6.4                                   | 6.4 | 6.4 | 6.4 | 6.3 | 6.5          | 2.4                                   | 2.0 | 2.1 | 2.3 | 2.4 | 2.5 | 2.5 |
| L 11       | 10.2         | 7.9                                   | 7.9 | 7.4 | 5.0 | 5.9 | 6.3          | -                                     | -   | -   | -   | -   | -   | -   |
| L 12       | 7.4          | 7.1                                   | 6.8 | 6.6 | 5.5 | 7.1 | 9.2          | -                                     | -   | -   | -   | -   | -   | -   |
| L 13       | 7.1          | 6.5                                   | 5.8 | 6.2 | 6.8 | 7.0 | 7.4          | 7.1                                   | 6.8 | 6.6 | 6.2 | 5.8 | 5.5 | 5.5 |
| L 14       | 7.4          | 5.7                                   | 4.3 | 4.6 | 5.8 | 5.1 | 5.3          | 4.9                                   | 2.8 | 1.2 | 1.2 | 1.5 | 0.7 | 0.7 |
| L 15       | 3.6          | 3.4                                   | 2.7 | 1.9 | 3.1 | 3.1 | 3.3          | 6.4                                   | 7.6 | 5.9 | 4.5 | 4.5 | 5.3 | 4.1 |

Infants delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F 1 | 5.7 | 5.7 | 4.9 | 4.9 | 4.6 | 4.7 | 4.7 | 4.8 | 4.2 | 2.9 | 4.1 | 4.5 | 4.6 | 4.7 |
| F 2 | 6.7 | 5.9 | 4.8 | 5.3 | 5.1 | 5.2 | 5.1 | 2.3 | 1.8 | 1.1 | 1.2 | 1.0 | 1.4 | 1.9 |
| F 3 | 5.8 | 4.4 | 3.7 | 3.7 | 4.2 | 3.8 | 3.8 | 3.0 | 2.1 | 1.3 | 1.6 | 1.9 | 1.3 | 1.9 |
| F 4 | 5.1 | 2.6 | 2.4 | 2.3 | 2.3 | 2.1 | 3.2 | -   | -   | -   | -   | -   | -   | -   |
| F 5 | 5.0 | 3.7 | 2.7 | 2.7 | 3.0 | 2.5 | 3.6 | 4.6 | 4.2 | 3.4 | 3.6 | 2.5 | 4.3 | 4.0 |

## TOTAL AMINO ACID NITROGEN ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |     |     |     |     | Basal level. | Minutes after glucagon administration |     |     |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|---------------------------------------|-----|-----|-----|-----|-----|-----|
|            |              | 20                                    | 40  | 60  | 90  | 120 |              | 150                                   | 20  | 40  | 60  | 90  | 120 | 150 |
| F 6        | 4.2          | 2.7                                   | 2.7 | 2.7 | 2.8 | 3.0 | 2.7          | 4.7                                   | 4.0 | 3.3 | 3.4 | 2.0 | 1.7 | 3.3 |
| F 7        | 6.4          | 5.5                                   | 5.6 | 5.4 | 4.9 | 5.4 | 5.0          | 1.9                                   | 1.7 | 1.4 | 1.4 | 1.1 | 1.3 | 1.3 |
| F 8        | 4.7          | 4.4                                   | 4.4 | 4.6 | 4.4 | 4.7 | 4.1          | 3.5                                   | 2.4 | 2.0 | 1.6 | 1.1 | 1.1 | 1.9 |

Infants delivered by Caesarean Section :

( 300 µg./kg. glucagon on the first day )

|       |      |      |      |     |     |     |     |     |     |     |     |     |     |     |
|-------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C 1   | 10.5 | 10.0 | 10.0 | 8.6 | 8.8 | 6.7 | 8.1 | 6.8 | 6.6 | 4.2 | 3.0 | 6.1 | 4.9 | 6.8 |
| C 2   | 8.3  | 7.8  | 7.4  | 6.2 | 5.7 | 5.6 | 6.2 | 5.9 | 4.1 | 2.4 | 1.4 | 2.1 | 3.1 | 1.4 |
| C 3   | 6.5  | 4.2  | 1.2  | 2.5 | 2.5 | 2.1 | 1.7 | 6.9 | 5.8 | 5.5 | 3.1 | 3.2 | 2.5 | 4.0 |
| C 4   | 10.1 | 8.1  | 8.3  | 8.0 | 8.7 | 8.6 | 3.2 | 7.5 | 7.3 | 5.2 | 4.8 | 3.5 | 4.6 | 2.0 |
| C 5   | 7.1  | 6.2  | 4.3  | 5.4 | 5.8 | 6.2 | 5.2 | 8.7 | 8.7 | 8.2 | 8.7 | 5.5 | 5.4 | 4.2 |
| C 6   | 5.3  | 3.3  | 2.5  | 2.0 | 3.0 | 1.8 | 2.2 | 2.6 | 0.9 | 0.9 | 0.9 | 0.6 | 1.7 | 1.4 |
| C 7   | 6.5  | 6.3  | 6.5  | 5.1 | 4.6 | 5.8 | 7.4 | -   | -   | -   | -   | -   | -   | -   |
| C 8   | 4.4  | 4.3  | 4.2  | 3.6 | 3.5 | 4.0 | 4.4 | 3.8 | 3.1 | 2.7 | 1.6 | 3.1 | 2.7 | 3.1 |
| *C 9  | 4.6  | 3.6  | 3.1  | 1.4 | 3.9 | 3.1 | 3.1 | 7.6 | 5.8 | 6.6 | 5.3 | 6.0 | 5.5 | 6.6 |
| *C 10 | 9.0  | 8.3  | 7.7  | 7.3 | 6.7 | 6.7 | 8.3 | 4.8 | 2.1 | 3.3 | 4.1 | 3.5 | 2.9 | 2.4 |

\* Premature infants

First day (within 2 to 3 hours after birth)

Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150          |                                       | 20 | 40 | 60 | 90 | 120 |

Full - term infants with maternal toxæmia :

|   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 4.2 | 2.4 | 4.1 | 3.3 | 3.6 | 2.7 | 2.6 | 2.7 | 1.3 | 1.3 | 1.8 | 2.2 | 1.9 | 2.1 |
| 2 | 4.0 | 3.4 | 3.1 | 3.1 | 2.2 | 2.5 | 1.9 | 4.1 | 3.4 | 2.1 | 3.3 | 3.1 | 2.3 | 1.7 |
| 3 | 5.6 | 4.1 | 4.2 | 4.2 | 4.0 | 3.2 | 2.1 | -   | -   | -   | -   | -   | -   | -   |
| 4 | 4.5 | 2.9 | 3.0 | 2.4 | 2.4 | 1.4 | 1.6 | 3.7 | 1.9 | 1.5 | 2.0 | 2.1 | 2.7 | 3.2 |
| 5 | 5.0 | 3.9 | 4.4 | 4.5 | 4.5 | 3.9 | 2.2 | 4.4 | 2.2 | 1.0 | 1.2 | 1.9 | 1.8 | 1.2 |

Infants with maternal toxæmia delivered by forceps application :

|   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6 | 7.0 | 6.5 | 6.6 | 6.0 | 6.1 | 6.1 | 6.3 | -   | -   | -   | -   | -   | -   | -   |
| 7 | 4.5 | 4.2 | 2.6 | 3.9 | 2.7 | 2.1 | 4.5 | 5.7 | 5.2 | 3.8 | 3.4 | 3.4 | 2.4 | 4.3 |

Premature infants with maternal toxæmia :

|    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 8  | 6.5 | 4.2 | 5.7 | 4.8 | 3.3 | 3.5 | 3.6 | 6.4 | 3.4 | 2.9 | 2.0 | 2.2 | 2.2 | 2.6 |
| 9  | 5.0 | 4.4 | 4.0 | 3.7 | 3.7 | 2.2 | 2.2 | 3.5 | 2.7 | 2.9 | 2.7 | 2.6 | 2.9 | 2.9 |
| 10 | 4.7 | 4.2 | 3.6 | 3.1 | 3.6 | 3.3 | 2.8 | 4.2 | 4.1 | 2.8 | 2.8 | 2.6 | 2.6 | 2.2 |

## TOTAL AMINO ACID NITROGEN ( CONTINUED )

First day (within 2 to 3 hours after birth)Eighth day

| Infant No. | Basal level. | Minutes after glucagon administration |    |    |    |     | Basal level. | Minutes after glucagon administration |    |    |    |    |     |
|------------|--------------|---------------------------------------|----|----|----|-----|--------------|---------------------------------------|----|----|----|----|-----|
|            |              | 20                                    | 40 | 60 | 90 | 120 | 150          |                                       | 20 | 40 | 60 | 90 | 120 |

Infants of diabetic mothers :

|      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| D 1  | 8.3 | 8.2 | 7.0 | 7.0 | 5.7 | 3.8 | 7.2 | 5.6 | 4.9 | 5.0 | 5.1 | 4.0 | 4.0 | 3.4 |
| *D 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| *D 3 | 9.5 | 9.3 | 6.4 | 5.0 | 2.9 | 1.2 | 2.3 | 3.3 | 2.4 | 3.1 | 1.6 | 2.0 | 1.7 | 1.9 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| S 1 | 6.1 | 5.3 | 3.8 | 4.2 | 4.2 | 3.6 | 6.3 | 7.4 | 6.2 | 6.7 | 5.9 | 5.9 | 6.3 | 6.6 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

\* Delivered by Caesarean section.

PLASMA LEVELS AFTER GLUCOSE (2.5 G/kg. oral) ADMINISTRATION.  
GLUCOSE (mg./100 ml.)

Second day

Eighth day

| Infant No.                   | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------------------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|                              |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| Full - term normal infants : |              |                                      |     |     |     |     |              |                                      |     |     |     |     |
| N 1                          | 48           | 108                                  | 125 | 130 | 98  | 59  | 79           | 112                                  | 138 | 128 | 81  | 79  |
| N 2                          | 40           | 103                                  | 116 | 102 | 94  | 76  | -            | -                                    | -   | -   | -   | -   |
| N 3                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 4                          | 64           | 125                                  | 130 | 130 | 110 | 85  | 53           | 103                                  | 142 | 148 | 102 | 79  |
| N 5                          | 41           | 98                                   | 146 | 155 | 82  | 51  | -            | -                                    | -   | -   | -   | -   |
| N 6                          | 54           | 128                                  | 166 | 128 | 104 | 67  | 75           | 175                                  | 175 | 128 | 78  | 78  |
| N 7                          | 53           | 116                                  | 147 | 186 | 164 | 98  | -            | -                                    | -   | -   | -   | -   |
| N 8                          | 36           | 96                                   | 106 | 75  | 49  | 45  | 68           | 112                                  | 138 | 124 | 75  | 69  |
| N 9                          | 60           | 131                                  | 186 | 180 | 118 | 84  | 67           | 128                                  | 132 | 122 | 102 | 94  |
| N 10                         | 69           | 130                                  | 134 | 121 | 77  | 66  | 55           | 156                                  | 172 | 128 | 63  | 54  |
| N 11                         | 52           | 138                                  | 173 | 165 | 135 | 77  | 41           | 70                                   | 117 | 101 | 78  | 56  |
| N 12                         | 39           | 94                                   | 125 | 115 | 91  | 59  | 62           | 84                                   | 120 | 98  | 94  | 80  |
| N 13                         | 35           | 98                                   | 127 | 145 | 121 | 74  | 59           | 111                                  | 147 | 132 | 88  | 62  |

## GLUCOSE ( CONTINUED )

Second dayEighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| N 14       | 54           | 135                                  | 156 | 164 | 136 | 85  | 62           | 95                                   | 133 | 143 | 116 | 87  |
| N 15       | 42           | 98                                   | 129 | 136 | 128 | 86  | -            | -                                    | -   | -   | -   | -   |
| N 16       | 30           | 91                                   | 140 | 146 | 148 | 148 | -            | -                                    | -   | -   | -   | -   |
| N 17       | 68           | 154                                  | 206 | 170 | 138 | 81  | 69           | 81                                   | 110 | 110 | 78  | 77  |

Healthy premature infants :

|     |    |     |     |     |     |     |    |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| P 1 | 63 | 70  | 103 | 119 | 148 | 140 | -  | -   | -   | -   | -   | -   |
| P 2 | 32 | 76  | 107 | 132 | 148 | 170 | -  | -   | -   | -   | -   | -   |
| P 3 | 42 | 120 | 171 | 193 | 198 | 180 | 54 | 116 | 190 | 210 | 179 | 132 |
| P 4 | 22 | 104 | 144 | 150 | 146 | 104 | -  | -   | -   | -   | -   | -   |
| P 5 | 46 | 100 | 138 | 135 | 117 | 75  | 77 | 162 | 184 | 228 | 188 | 146 |
| P 6 | 75 | 212 | 280 | 300 | 292 | 254 | 59 | 198 | 230 | 243 | 232 | 207 |
| P 7 | 31 | 114 | 168 | 155 | 116 | 61  | -  | -   | -   | -   | -   | -   |
| P 8 | 37 | 120 | 176 | 168 | 135 | 98  | -  | -   | -   | -   | -   | -   |
| P 9 | 27 | 81  | 116 | 118 | 104 | 88  | -  | -   | -   | -   | -   | -   |

GLUCOSE ( CONTINUED )

92  
Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| P 10       | 30           | 125                                  | 144 | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| P 11       | 33           | 80                                   | 127 | 112 | 95  | 65  | 60           | 125                                  | 144 | 154 | 91  | 57  |
| P 12       | 56           | 92                                   | 131 | 166 | 190 | 200 | -            | -                                    | -   | -   | -   | -   |
| P 13       | 36           | 124                                  | 154 | 164 | 134 | 112 | 43           | 67                                   | 96  | 100 | 77  | 69  |
| P 14       | 58           | 158                                  | 190 | 204 | 178 | 121 | 68           | 130                                  | 186 | 212 | 207 | 203 |
| P 15       | 52           | 115                                  | 175 | 182 | 132 | 75  | 62           | 93                                   | 118 | 132 | 84  | 60  |

Healthy Low birth weight infants :

|     |    |     |     |     |     |     |    |     |     |     |      |     |
|-----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|------|-----|
| L 1 | -  | -   | -   | -   | -   | -   | 42 | 86  | 111 | 114 | 84   | 73  |
| L 2 | 36 | 118 | 158 | 188 | 110 | 79  | 75 | 168 | 204 | 215 | 1366 | 77  |
| L 3 | 56 | 134 | 172 | 172 | 170 | 120 | 58 | 98  | 147 | 178 | 171  | 149 |
| L 4 | 37 | 146 | 114 | 107 | 66  | 48  | -  | -   | -   | -   | -    | -   |
| L 5 | 56 | 181 | 225 | 212 | 179 | 146 | 54 | 86  | 107 | 118 | 81   | 70  |
| L 6 | 37 | 70  | 77  | 55  | 28  | 21  | 28 | 48  | 69  | 71  | 67   | 55  |
| L 7 | 37 | 140 | 143 | 107 | 54  | 34  | 61 | 125 | 145 | 120 | 88   | 56  |

## GLUCOSE ( CONTINUED )

Second dayEighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| L 8        | 36           | 100                                  | 127 | 100 | 41  | 29  | 43           | 84                                   | 109 | 112 | 82  | 62  |
| L 9        | 23           | 63                                   | 65  | 62  | 60  | 50  | 61           | 102                                  | 122 | 101 | 63  | 35  |
| L 10       | 35           | 89                                   | 108 | 94  | 47  | 36  | 41           | 91                                   | 107 | 104 | 79  | 73  |
| L 11       | 33           | 85                                   | 123 | 137 | 107 | 85  | -            | -                                    | -   | -   | -   | -   |
| L 12       | 24           | 37                                   | 46  | 48  | 61  | 56  | -            | -                                    | -   | -   | -   | -   |
| L 13       | 34           | 100                                  | 134 | 147 | 125 | 113 | 58           | 101                                  | 121 | 134 | 129 | 97  |
| L 14       | 33           | 109                                  | 137 | 154 | 128 | 87  | 56           | 70                                   | 78  | 80  | 76  | 67  |
| L 15       | 50           | 126                                  | 178 | 176 | 171 | 168 | 49           | 86                                   | 114 | 99  | 94  | 58  |

Infants delivered by forceps application :

|     |    |     |     |     |    |    |    |     |     |     |     |     |
|-----|----|-----|-----|-----|----|----|----|-----|-----|-----|-----|-----|
| F 1 | 50 | 115 | 158 | 142 | 86 | 45 | 49 | 82  | 105 | 128 | 117 | 100 |
| F 2 | -  | -   | -   | -   | -  | -  | 64 | 85  | 85  | 85  | 77  | 73  |
| F 3 | 52 | 113 | 156 | 141 | 91 | 40 | 61 | 118 | 190 | 165 | 98  | 68  |
| F 4 | 62 | 90  | 92  | 63  | 43 | 40 | -  | -   | -   | -   | -   | -   |
| F 5 | 61 | 114 | 150 | 119 | 61 | 42 | 53 | 116 | 158 | 142 | 127 | 96  |

89  
29  
Second day

GLUCOSE ( CONTINUED )

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| F 6        | 40           | 132                                  | 171 | 184 | 176 | 140 | 58           | 110                                  | 150 | 152 | 128 | 104 |
| F 7        | 51           | 110                                  | 135 | 108 | 104 | 69  | 63           | 91                                   | 103 | 88  | 82  | 64  |
| F 8        | 42           | 88                                   | 93  | 91  | 84  | 67  | 42           | 70                                   | 101 | 106 | 75  | 66  |

Infants delivered by Caesarean section :

|       |    |     |     |     |     |     |    |     |     |     |     |     |
|-------|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| C 1   | 61 | 91  | 87  | 65  | 54  | 53  | 59 | 105 | 103 | 76  | 44  | 61  |
| C 2   | 36 | 83  | 106 | 139 | 90  | 59  | 48 | 76  | 101 | 118 | 77  | 43  |
| C 3   | 55 | 132 | 162 | 108 | 62  | 40  | 55 | 72  | 98  | 114 | 73  | 62  |
| C 4   | 55 | 154 | 138 | 112 | 81  | 65  | 57 | 130 | 178 | 143 | 102 | 77  |
| C 5   | 44 | 183 | 194 | 225 | 167 | 115 | 59 | 118 | 159 | 145 | 119 | 100 |
| C 6   | 45 | 96  | 121 | 86  | 38  | 31  | 68 | 95  | 130 | 107 | 78  | 60  |
| C 7   | 26 | 55  | 73  | 72  | 72  | 72  | -  | -   | -   | -   | -   | -   |
| C 8   | 34 | 94  | 127 | 125 | 106 | 60  | 57 | 85  | 132 | 85  | 82  | 77  |
| *C 9  | 94 | 96  | 123 | 188 | 202 | 153 | 68 | 77  | 79  | 76  | 68  | 63  |
| *C 10 | 80 | 110 | 170 | 200 | 196 | 150 | 52 | 73  | 90  | 104 | 80  | 64  |

\* Premature infants

## GLUCOSE ( CONTINUED )

Second dayEighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Full - term infants with maternal toxæmia :

|   |    |     |     |     |     |     |    |     |     |     |     |     |
|---|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| 1 | 52 | 190 | 228 | 277 | 269 | 228 | 67 | 117 | 134 | 98  | 57  | 53  |
| 2 | 62 | 152 | 179 | 164 | 146 | 91  | 83 | 108 | 121 | 142 | 114 | 73  |
| 3 | 28 | 180 | 169 | 149 | 106 | 83  | -  | -   | -   | -   | -   | -   |
| 4 | 38 | 121 | 156 | 119 | 63  | 60  | 96 | 102 | 131 | 146 | 127 | 123 |
| 5 | 47 | 94  | 181 | 140 | 110 | 66  | 48 | 79  | 118 | 128 | 112 | 52  |

Infants with maternal toxæmia delivered forceps application :

|   |    |     |     |     |     |    |    |     |     |    |    |    |
|---|----|-----|-----|-----|-----|----|----|-----|-----|----|----|----|
| 6 | 53 | 142 | 166 | 162 | 129 | 99 | -  | -   | -   | -  | -  | -  |
| 7 | 47 | 128 | 126 | 94  | 67  | 54 | 67 | 117 | 119 | 94 | 83 | 79 |

Premature infants with maternal toxæmia :

|    |    |     |     |     |     |     |    |     |     |     |     |    |
|----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|
| 8  | 46 | 136 | 152 | 166 | 150 | 122 | 71 | 114 | 168 | 152 | 100 | 66 |
| 9  | 43 | 104 | 143 | 148 | 152 | 123 | 53 | 68  | 93  | 119 | 87  | 83 |
| 10 | 38 | 104 | 186 | 200 | 157 | 106 | 61 | 96  | 126 | 120 | 116 | 99 |

GLUCOSE ( CONTINUED )

270  
Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Infants of diabetic mothers :

|       |    |     |     |     |    |    |    |     |     |     |     |    |
|-------|----|-----|-----|-----|----|----|----|-----|-----|-----|-----|----|
| D 1   | 46 | 101 | 110 | 107 | 94 | 84 | 44 | 62  | 62  | 60  | 54  | 56 |
| DD 2. | -  | -   | -   | -   | -  | -  | -  | -   | -   | -   | -   | -  |
| *D 3  | -  | -   | -   | -   | -  | -  | 74 | 110 | 116 | 156 | 126 | 85 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |    |     |     |     |     |     |     |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| S 1 | 50 | 134 | 198 | 227 | 221 | 208 | 113 | 126 | 148 | 175 | 182 | 212 |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

\* Delivered by Caesarean Section.

Δ GLUCOSE (mg./100 ml.)

271

Second day

Eighth day

| Infant No.                   | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |    |     |     |
|------------------------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|----|-----|-----|
|                              |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90 | 120 | 150 |
| Full - term normal infants : |              |                                      |     |     |     |     |              |                                      |     |    |     |     |
| N 1                          | 48           | 60                                   | 77  | 82  | 50  | 11  | 79           | 33                                   | 59  | 49 | 2   | 0   |
| N 2                          | 40           | 63                                   | 76  | 62  | 54  | 36  | -            | -                                    | -   | -  | -   | -   |
| N 3                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -  | -   | -   |
| N 4                          | 64           | 61                                   | 66  | 66  | 46  | 21  | 53           | 50                                   | 89  | 95 | 49  | 26  |
| N 5                          | 41           | 57                                   | 105 | 114 | 41  | 10  | -            | -                                    | -   | -  | -   | -   |
| N 6                          | 54           | 74                                   | 112 | 74  | 50  | 13  | 75           | 100                                  | 100 | 53 | 3   | 3   |
| N 7                          | 53           | 63                                   | 94  | 133 | 111 | 45  | -            | -                                    | -   | -  | -   | -   |
| N 8                          | 36           | 60                                   | 70  | 39  | 13  | 9   | 68           | 44                                   | 70  | 56 | 7   | 1   |
| N 9                          | 60           | 71                                   | 126 | 120 | 58  | 24  | 67           | 61                                   | 65  | 55 | 35  | 27  |
| N 10                         | 69           | 61                                   | 65  | 52  | 8   | -3  | 55           | 101                                  | 117 | 73 | 8   | -1  |
| N 11                         | 52           | 86                                   | 121 | 113 | 83  | 25  | 41           | 29                                   | 76  | 60 | 37  | 15  |
| N 12                         | 39           | 55                                   | 86  | 76  | 52  | 20  | 62           | 22                                   | 58  | 36 | 32  | 18  |
| N 13                         | 35           | 63                                   | 92  | 110 | 86  | 39  | 59           | 52                                   | 88  | 73 | 29  | 3   |

# Δ GLUCOSE ( CONTINUED )

22  
Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |
| N 14       | 54           | 81                                   | 102 | 110 | 82  | 31  | 62           | 32                                   | 71 | 81 | 54  | 25  |
| N 15       | 42           | 56                                   | 87  | 94  | 86  | 44  | -            | -                                    | -  | -  | -   | -   |
| N 16       | 30           | 61                                   | 110 | 116 | 118 | 118 | -            | -                                    | -  | -  | -   | -   |
| N 17       | 68           | 86                                   | 138 | 102 | 70  | 13  | 69           | 12                                   | 41 | 41 | 9   | 8   |

## Healthy Premature infants :

|     |    |     |     |     |     |     |    |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|
| P 1 | 63 | 7   | 40  | 56  | 85  | 77  | -  | -   | -   | -   | -   | -   |
| P 2 | 32 | 44  | 75  | 100 | 116 | 138 | -  | -   | -   | -   | -   | -   |
| P 3 | 42 | 78  | 129 | 151 | 156 | 138 | 54 | 62  | 136 | 156 | 125 | 78  |
| P 4 | 22 | 82  | 122 | 128 | 124 | 82  | -  | -   | -   | -   | -   | -   |
| P 5 | 46 | 54  | 92  | 89  | 71  | 29  | 77 | 85  | 107 | 151 | 111 | 69  |
| P 6 | 73 | 139 | 207 | 227 | 219 | 181 | 59 | 139 | 171 | 184 | 173 | 148 |
| P 7 | 31 | 83  | 137 | 124 | 85  | 30  | -  | -   | -   | -   | -   | -   |
| P 8 | 37 | 83  | 139 | 131 | 98  | 61  | -  | -   | -   | -   | -   | -   |
| P 9 | 27 | 54  | 89  | 91  | 77  | 61  | -  | -   | -   | -   | -   | -   |

## 4 GLUCOSE ( CONTINUED )

Second dayEighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|-------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |             | 30                                   | 60  | 90  | 120 | 150 |
| P 10       | 30           | 95                                   | 114 | -   | -   | -   | -           | -                                    | -   | -   | -   | -   |
| P 11       | 33           | 47                                   | 94  | 79  | 62  | 32  | 60          | 65                                   | 84  | 94  | 31  | -3  |
| P 12       | 56           | 36                                   | 75  | 110 | 134 | 144 | -           | -                                    | -   | -   | -   | -   |
| P 13       | 36           | 88                                   | 118 | 128 | 98  | 76  | 43          | 24                                   | 53  | 57  | 34  | 26  |
| P 14       | 58           | 100                                  | 132 | 146 | 120 | 63  | 68          | 62                                   | 118 | 144 | 139 | 135 |
| P 15       | 52           | 63                                   | 123 | 130 | 80  | 23  | 62          | 31                                   | 56  | 70  | 22  | -2  |

Healthy low birth weight infants :

|     |    |     |     |     |     |     |    |    |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|
| L 1 | -  | -   | -   | -   | -   | -   | 42 | 44 | 69  | 72  | 42  | 31  |
| L 2 | 36 | 82  | 122 | 152 | 74  | 43  | 75 | 93 | 129 | 140 | 61  | 2   |
| L 3 | 56 | 78  | 116 | 116 | 114 | 64  | 58 | 40 | 89  | 120 | 113 | 91  |
| L 4 | 37 | 109 | 77  | 70  | 29  | 11  | -  | -  | -   | -   | -   | -   |
| L 5 | 56 | 125 | 169 | 156 | 123 | 90  | 54 | 32 | 53  | 64  | 27  | 16  |
| L 6 | 37 | 33  | 40  | 18  | - 9 | -16 | 28 | 20 | 41  | 43  | 39  | 27  |
| L 7 | 37 | 103 | 106 | 70  | 17  | - 3 | 61 | 64 | 84  | 59  | 27  | - 5 |

Second day

## A GLUCOSE ( CONTINUED )

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |
| L 8        | 36           | 64                                   | 91  | 64  | 5   | -7  | 43           | 41                                   | 66 | 69 | 39  | 19  |
| L 9        | 23           | 40                                   | 42  | 39  | 37  | 27  | 61           | 41                                   | 61 | 40 | 2   | -26 |
| L 10       | 35           | 54                                   | 73  | 59  | 12  | 1   | 41           | 50                                   | 66 | 63 | 38  | 32  |
| L 11       | 33           | 52                                   | 90  | 104 | 74  | 52  | -            | -                                    | -  | -  | -   | -   |
| L 12       | 24           | 13                                   | 22  | 24  | 37  | 32  | -            | -                                    | -  | -  | -   | -   |
| L 13       | 34           | 66                                   | 100 | 113 | 91  | 79  | 58           | 43                                   | 63 | 76 | 71  | 39  |
| L 14       | 33           | 76                                   | 104 | 121 | 95  | 54  | 56           | 14                                   | 22 | 24 | 20  | 11  |
| L 15       | 50           | 76                                   | 128 | 126 | 121 | 118 | 49           | 37                                   | 65 | 50 | 45  | 9   |

Infants delivered by forceps application :

|     |    |    |     |    |     |     |    |    |     |     |    |    |
|-----|----|----|-----|----|-----|-----|----|----|-----|-----|----|----|
| F 1 | 50 | 65 | 108 | 92 | 36  | -5  | 49 | 33 | 56  | 79  | 68 | 51 |
| F 2 | -  | -  | -   | -  | -   | -   | 64 | 21 | 21  | 21  | 13 | 9  |
| F 3 | 52 | 61 | 104 | 89 | 39  | -12 | 61 | 57 | 129 | 104 | 37 | 7  |
| F 4 | 62 | 28 | 30  | 1  | -19 | -22 | -  | -  | -   | -   | -  | -  |
| F 5 | 61 | 53 | 89  | 58 | 0   | -19 | 53 | 63 | 105 | 89  | 74 | 43 |

## Δ GLUCOSE ( CONTINUED )

Second dayEighthday

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |
| F 6        | 40           | 92                                   | 131 | 144 | 136 | 100 | 58           | 52                                   | 92 | 94 | 70  | 46  |
| F 7        | 51           | 59                                   | 84  | 57  | 53  | 18  | 63           | 28                                   | 40 | 25 | 19  | 1   |
| F 8        | 42           | 46                                   | 51  | 49  | 42  | 25  | 42           | 28                                   | 59 | 64 | 33  | 24  |

Infants delivered by Caesarean section :

|       |    |     |     |     |     |     |    |    |     |    |     |    |
|-------|----|-----|-----|-----|-----|-----|----|----|-----|----|-----|----|
| C 1   | 61 | 30  | 26  | 4   | -7  | -8  | 59 | 46 | 44  | 17 | -15 | 2  |
| C 2   | 36 | 47  | 70  | 103 | 54  | 23  | 48 | 28 | 53  | 70 | 29  | -5 |
| C 3   | 55 | 77  | 107 | 53  | 7   | -15 | 55 | 17 | 43  | 59 | 18  | 7  |
| C 4   | 55 | 99  | 83  | 57  | 26  | 10  | 57 | 73 | 121 | 86 | 45  | 20 |
| C 5   | 44 | 139 | 150 | 181 | 123 | 71  | 59 | 59 | 100 | 86 | 60  | 41 |
| C 6   | 45 | 41  | 76  | 41  | -7  | -14 | 68 | 27 | 62  | 39 | 10  | -8 |
| C 7   | 26 | 29  | 47  | 46  | 46  | 46  | -  | -  | -   | -  | -   | -  |
| C 8   | 34 | 60  | 93  | 91  | 72  | 26  | 57 | 28 | 75  | 28 | 25  | 20 |
| *C 9  | 94 | 2   | 29  | 94  | 108 | 59  | 68 | 9  | 11  | 10 | 0   | -5 |
| *C 10 | 80 | 30  | 90  | 120 | 116 | 70  | 52 | 21 | 38  | 52 | 28  | 12 |

\* Premature infants.

## A GLUCOSE ( CONTINUED )

Second dayEighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Full - term infants with maternal toxæmia :

|   |    |     |     |     |     |     |    |    |    |    |     |     |
|---|----|-----|-----|-----|-----|-----|----|----|----|----|-----|-----|
| 1 | 52 | 138 | 176 | 225 | 217 | 176 | 67 | 40 | 67 | 31 | -10 | -14 |
| 2 | 62 | 90  | 117 | 102 | 84  | 29  | 83 | 25 | 38 | 59 | 31  | -10 |
| 3 | 28 | 152 | 141 | 121 | 78  | 55  | -  | -  | -  | -  | -   | -   |
| 4 | 38 | 83  | 118 | 81  | 25  | 22  | 96 | 6  | 35 | 50 | 31  | 27  |
| 5 | 47 | 47  | 134 | 93  | 63  | 19  | 48 | 31 | 70 | 80 | 64  | 4   |

Infants with maternal toxæmia delivered by forceps application :

|   |    |    |     |     |    |    |    |    |    |    |    |    |
|---|----|----|-----|-----|----|----|----|----|----|----|----|----|
| 6 | 53 | 89 | 113 | 109 | 76 | 46 | -  | -  | -  | -  | -  | -  |
| 7 | 47 | 81 | 79  | 47  | 20 | 7  | 67 | 50 | 52 | 27 | 16 | 12 |

Premature infants with maternal toxæmia :

|    |    |    |     |     |     |    |    |    |    |    |    |    |
|----|----|----|-----|-----|-----|----|----|----|----|----|----|----|
| 8  | 46 | 90 | 106 | 120 | 104 | 76 | 71 | 43 | 97 | 81 | 29 | -5 |
| 9  | 43 | 61 | 100 | 105 | 109 | 80 | 53 | 15 | 40 | 66 | 34 | 30 |
| 10 | 38 | 66 | 148 | 162 | 119 | 68 | 61 | 35 | 65 | 59 | 55 | 38 |

277  
Second day

Δ GLUCOSE ( CONTINUED. )

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Infants of diabetic mothers :

|      |    |    |    |    |    |    |    |    |    |    |    |    |
|------|----|----|----|----|----|----|----|----|----|----|----|----|
| D 1  | 46 | 55 | 64 | 61 | 48 | 38 | 44 | 18 | 18 | 16 | 10 | 12 |
| *D 2 | -  | -  | -  | -  | -  | -  | .  |    |    |    |    |    |
| *D 3 | -  | -  | -  | -  | -  | -  | 74 | 36 | 92 | 82 | 52 | 11 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |    |    |     |     |     |     |     |    |    |    |    |    |
|-----|----|----|-----|-----|-----|-----|-----|----|----|----|----|----|
| S 1 | 50 | 84 | 148 | 177 | 171 | 158 | 113 | 13 | 35 | 62 | 69 | 99 |
|-----|----|----|-----|-----|-----|-----|-----|----|----|----|----|----|

\* Delivered by Caesarean section.

## INORGANIC PHOSPHORUS (mg./100 ml.)

| Infant No.                   | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------------------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|                              |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| Full - term normal infants : |              |                                      |     |     |     |     |              |                                      |     |     |     |     |
| N 1                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 2                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 3                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 4                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 5                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 6                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 7                          | 4.2          | 4.2                                  | 4.1 | 3.5 | 3.9 | 3.7 | -            | -                                    | -   | -   | -   | -   |
| N 8                          | 5.8          | 5.2                                  | 5.3 | 5.3 | 5.5 | 5.4 | 4.6          | 4.5                                  | 4.5 | 4.5 | 4.6 | 4.4 |
| N 9                          | 7.1          | 6.0                                  | 6.1 | 5.1 | 6.0 | 5.8 | 4.2          | 4.0                                  | 4.0 | 4.0 | 4.1 | 4.1 |
| N 10                         | 6.5          | 5.3                                  | 5.4 | 5.3 | 6.1 | 5.4 | 5.1          | 4.5                                  | 5.1 | 5.4 | 4.8 | 4.8 |
| N 11                         | 6.3          | 5.6                                  | 5.5 | 4.9 | 4.4 | 3.6 | 5.7          | 5.7                                  | 5.7 | 5.6 | 5.6 | 5.7 |
| N 12                         | 7.3          | 6.2                                  | 6.4 | 6.2 | 6.1 | 5.8 | 5.5          | 5.5                                  | 5.4 | 5.2 | 5.2 | 5.3 |
| N 13                         | 6.4          | 6.4                                  | 6.2 | 6.3 | 6.5 | 5.9 | 5.4          | 5.3                                  | 5.3 | 5.3 | 5.2 | 5.0 |

## INORGANIC PHOSPHORUS ( CONTINUED )

Second dayEighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| N 14       | 6.3          | 5.8                                  | 5.6 | 5.1 | 5.0 | 4.7 | 4.1          | 4.2                                  | 4.3 | 4.0 | 4.1 | 4.2 |
| N 15       | 4.8          | 4.7                                  | 4.2 | 4.7 | 4.6 | 4.9 | -            | -                                    | -   | -   | -   | -   |
| N 16       | 6.9          | 6.9                                  | 6.6 | 6.9 | 6.7 | 6.9 | -            | -                                    | -   | -   | -   | -   |
| N 17       | 6.7          | 6.5                                  | 6.2 | 6.2 | 6.7 | 6.9 | 7.1          | 6.9                                  | 6.8 | 6.8 | 6.6 | 6.4 |

Healthy premature infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 3 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 4 | 6.6 | 6.5 | 6.5 | 6.4 | 6.2 | 6.1 | -   | -   | -   | -   | -   | -   |
| P 5 | 5.8 | 5.5 | 5.5 | 5.5 | 6.0 | 5.5 | 4.4 | 4.3 | 4.1 | 4.0 | 4.2 | 3.8 |
| P 6 | 6.8 | 6.7 | 6.2 | 5.6 | 6.0 | 6.2 | 3.4 | 3.3 | 3.1 | 3.0 | 3.4 | 2.8 |
| P 7 | 5.0 | 4.7 | 4.7 | 4.2 | 4.2 | 4.1 | -   | -   | -   | -   | -   | -   |
| P 8 | 6.4 | 5.9 | 5.5 | 5.0 | 5.9 | 5.9 | -   | -   | -   | -   | -   | -   |
| P 9 | 5.6 | 5.5 | 5.1 | 4.8 | 4.2 | 3.9 | -   | -   | -   | -   | -   | -   |

280 Second day

Eight day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| P 10       | 4.6          | 4.3                                  | 4.3 | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| P 11       | 4.2          | 3.5                                  | 3.1 | 3.5 | 3.8 | 4.0 | 3.7          | 3.3                                  | 3.3 | 3.1 | 2.7 | 2.1 |
| P 12       | 5.0          | 5.0                                  | 4.8 | 4.8 | 5.0 | 4.0 | -            | -                                    | -   | -   | -   | -   |
| P 13       | 5.0          | 5.0                                  | 5.0 | 5.0 | 4.8 | 4.6 | 3.8          | 3.2                                  | 3.9 | 3.8 | 3.8 | 3.0 |
| P 14       | 6.2          | 6.2                                  | 5.7 | 5.7 | 5.6 | 5.7 | 4.9          | 4.8                                  | 4.6 | 4.7 | 4.8 | 4.1 |
| P 15       | 5.1          | 4.9                                  | 4.6 | 4.6 | 4.6 | 3.4 | 4.3          | 4.2                                  | 3.7 | 3.7 | 4.0 | 3.4 |

### Healthy low birth weight infants :

| IL   | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
|------|-----|-----|-----|-----|-----|-----|-----|
| IL 1 | -   | -   | -   | -   | -   | -   | -   |
| IL 2 | -   | -   | -   | -   | -   | -   | -   |
| IL 3 | 6.4 | 6.0 | 5.8 | 5.4 | 5.9 | 6.1 | 5.5 |
| IL 4 | 7.0 | 6.6 | 6.7 | 6.7 | 7.1 | 6.8 | -   |
| IL 5 | 7.5 | 6.7 | 6.4 | 6.3 | 6.2 | 6.6 | 6.0 |
| IL 6 | 7.2 | 7.1 | 7.1 | 7.3 | 7.3 | 7.4 | 5.4 |
| IL 7 | 7.5 | 7.2 | 7.2 | 6.6 | 6.5 | 6.5 | 3.6 |

Second day

## INORGANIC PHOSPHORUS ( CONTINUED )

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration. |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|---------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                    | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| L 8        | 7.0          | 7.0                                   | 6.9 | 7.2 | 6.8 | 6.3 | 3.7          | 3.7                                  | 3.4 | 3.8 | 3.5 | 3.0 |
| L 9        | 7.3          | 6.6                                   | 6.6 | 7.0 | 7.0 | 6.9 | 3.6          | 3.4                                  | 3.3 | 3.8 | 3.8 | 3.1 |
| L 10       | 5.7          | 5.9                                   | 5.7 | 5.7 | 6.2 | 5.7 | 5.5          | 5.0                                  | 4.7 | 4.9 | 4.5 | 4.5 |
| L 11       | 7.1          | 6.9                                   | 6.7 | 6.0 | 6.0 | 5.5 | -            | -                                    | -   | -   | -   | -   |
| L 12       | 6.0          | 5.6                                   | 5.6 | 5.3 | 5.6 | 5.4 | -            | -                                    | -   | -   | -   | -   |
| L 13       | 6.2          | 5.8                                   | 6.2 | 5.8 | 5.6 | 5.5 | 5.2          | 4.8                                  | 4.8 | 4.8 | 4.6 | 4.6 |
| L 14       | 6.0          | 5.3                                   | 5.6 | 5.6 | 5.3 | 5.5 | 3.7          | 3.7                                  | 3.7 | 4.0 | 3.9 | 3.3 |
| L 15       | 5.6          | 5.2                                   | 4.6 | 5.0 | 5.4 | 5.2 | 6.7          | 6.8                                  | 6.5 | 6.7 | 6.7 | 6.5 |

Infants delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F 1 | 7.8 | 7.6 | 7.7 | 6.9 | 6.9 | 5.9 | 6.4 | 5.5 | 5.7 | 5.5 | 5.5 | 4.8 |
| F 2 | -   | -   | -   | -   | -   | -   | 5.1 | 5.2 | 5.1 | 5.1 | 4.8 | 4.7 |
| F 3 | 4.7 | 4.1 | 4.1 | 3.7 | 3.2 | 3.4 | 4.9 | 4.3 | 4.2 | 5.0 | 5.1 | 5.0 |
| F 4 | 6.7 | 5.3 | 5.3 | 6.1 | 5.7 | 4.6 | -   | -   | -   | -   | -   | -   |
| F 5 | 6.6 | 5.6 | 6.3 | 6.2 | 6.2 | 6.3 | 4.4 | 3.3 | 4.1 | 4.4 | 4.5 | 4.2 |

INORGANIC PHOSPHORUS ( CONTINUED )

22  
28  
Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| F 6        | 4.8          | 4.7                                  | 4.7 | 4.8 | 4.8 | 4.1 | 4.1          | 3.9                                  | 4.1 | 4.1 | 3.9 | 3.9 |
| F 7        | 6.5          | 6.0                                  | 5.6 | 5.6 | 5.2 | 5.1 | 2.9          | 3.0                                  | 2.9 | 2.9 | 3.0 | 2.5 |
| F 8        | 5.6          | 5.3                                  | 5.5 | 5.3 | 5.3 | 5.0 | 6.2          | 6.1                                  | 6.1 | 5.8 | 5.6 | 6.0 |

Infants delivered by Caesarean section :

|       |     |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| C 1   | 6.5 | 6.1 | 5.6 | 5.6 | 6.0 | 6.2 | 5.1 | 4.7 | 4.6 | 4.5 | 4.2 | 4.6 |
| C 2   | 6.5 | 5.8 | 5.5 | 5.0 | 5.5 | 5.5 | 4.7 | 4.8 | 4.5 | 4.4 | 4.5 | 4.7 |
| C 3   | 5.6 | 5.4 | 5.3 | 5.0 | 4.9 | 5.0 | 3.9 | 3.8 | 3.5 | 3.8 | 3.7 | 3.8 |
| C 4   | 6.8 | 6.2 | 5.8 | 5.0 | 5.6 | 6.2 | 4.4 | 4.1 | 4.0 | 4.4 | 4.0 | 4.3 |
| C 5   | 7.0 | 6.7 | 6.4 | 5.5 | 6.0 | 6.4 | 5.5 | 5.4 | 4.9 | 4.5 | 4.9 | 4.9 |
| C 6   | 6.4 | 5.9 | 5.4 | 4.9 | 5.1 | 5.4 | 4.6 | 4.6 | 4.2 | 4.1 | 4.1 | 4.0 |
| C 7   | 7.8 | 7.0 | 6.2 | 6.1 | 5.7 | 6.0 | -   | -   | -   | -   | -   | -   |
| C 8   | 7.3 | 7.3 | 7.0 | 6.8 | 6.6 | 6.5 | 5.6 | 5.5 | 5.1 | 5.1 | 5.3 | 5.2 |
| *C 9  | 5.7 | 5.6 | 5.5 | 5.0 | 4.7 | 4.4 | 6.1 | 5.9 | 5.8 | 6.1 | 6.1 | 6.1 |
| *C 10 | 6.4 | 6.1 | 5.8 | 5.7 | 5.4 | 5.5 | 4.6 | 4.2 | 3.9 | 4.2 | 4.3 | 4.4 |

\* Premature infants

Second dayEighth day

25

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Full - term infants with maternal toxemia :

|   |     |     |     |     |     |     |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 7.9 | 7.8 | 7.6 | 6.5 | 6.2 | 6.5 | 6.2 | 6.2 | 6.2 | 5.9 | 5.9 | 6.1 |
| 2 | 7.6 | 7.4 | 7.2 | 6.6 | 6.3 | 5.8 | 3.9 | 4.0 | 3.4 | 3.5 | 3.8 | 3.9 |
| 3 | 5.3 | 5.3 | 5.3 | 5.1 | 5.2 | 5.3 | -   | -   | -   | -   | -   | -   |
| 4 | 6.7 | 6.4 | 6.0 | 6.2 | 6.2 | 6.0 | 5.7 | 4.3 | 4.8 | 5.0 | 4.0 | 5.0 |
| 5 | 7.3 | 6.3 | 7.0 | 7.3 | 7.3 | 7.1 | 7.0 | 6.7 | 6.8 | 6.8 | 6.8 | 6.8 |

Infants with maternal toxemia delivered by forceps application :

|   |     |     |     |     |     |     |     |     |     |     |     |     |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 6 | 3.7 | 3.7 | 3.5 | 3.7 | 3.1 | 3.3 | -   | -   | -   | -   | -   | -   |
| 7 | 6.7 | 6.6 | 6.4 | 6.2 | 6.5 | 6.8 | 5.6 | 5.6 | 5.7 | 5.6 | 5.5 | 5.5 |

Premature infants with maternal toxemia :

|    |     |     |     |     |     |     |     |     |     |     |     |     |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 8  | 5.9 | 5.7 | 5.1 | 4.9 | 4.5 | 4.3 | 3.5 | 3.3 | 3.1 | 3.3 | 3.3 | 3.3 |
| 9  | 5.8 | 5.8 | 5.8 | 5.8 | 5.5 | 5.5 | 3.5 | 3.1 | 3.2 | 3.2 | 3.2 | 3.5 |
| 10 | 7.7 | 7.8 | 7.7 | 6.2 | 6.2 | 6.2 | 5.6 | 5.2 | 5.2 | 5.2 | 5.2 | 5.3 |

INORGANIC PHOSPHORUS ( CONTINUED )

47  
88  
23 Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Infants of diabetic mothers :

|      |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| D 1  | 5.6 | 5.2 | 5.2 | 5.2 | 5.1 | 5.5 | 3.5 | 3.3 | 3.4 | 3.4 | 3.5 | 3.1 |
| *D 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| *D 3 | -   | -   | -   | -   | -   | -   | 5.2 | 5.1 | 5.2 | 5.4 | 5.4 | 5.1 |

Premature infant who showed signs of sclerema on the fourth day of life :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| S 1 | 4.3 | 4.3 | 4.5 | 4.0 | 3.9 | 3.2 | 6.5 | 6.2 | 6.2 | 6.3 | 6.8 | 6.5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

\* Delivered by Caesarean section.

Second dayEighth day

| Infant No.                   | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------------------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|                              |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| Full - term normal infants : |              |                                      |     |     |     |     |              |                                      |     |     |     |     |
| N 1                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 2                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 3                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 4                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 5                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 6                          | -            | -                                    | -   | -   | -   | -   | -            | -                                    | -   | -   | -   | -   |
| N 7                          | 4.9          | 3.9                                  | 3.6 | 3.5 | 4.2 | 5.0 | -            | -                                    | -   | -   | -   | -   |
| N 8                          | 5.6          | 5.5                                  | 5.0 | 4.8 | 4.9 | 4.5 | 4.5          | 3.9                                  | 4.0 | 3.9 | 3.9 | 3.9 |
| N 9                          | 5.7          | 5.3                                  | 5.0 | 4.5 | 5.3 | 4.1 | 4.3          | 3.9                                  | 3.9 | 3.8 | 4.1 | 4.0 |
| N 10                         | 5.8          | 5.3                                  | 5.2 | 5.3 | 4.8 | 5.2 | 6.0          | 4.8                                  | 3.7 | 4.2 | 4.5 | 5.6 |
| N 11                         | 4.6          | 4.4                                  | 4.3 | 4.4 | 4.4 | 4.4 | 3.9          | 3.3                                  | 3.3 | 3.4 | 3.4 | 3.5 |
| N 12                         | 5.1          | 4.9                                  | 4.9 | 4.0 | 3.7 | 3.9 | 3.2          | 3.1                                  | 3.2 | 3.2 | 2.8 | 3.6 |
| N 13                         | 5.3          | 5.0                                  | 4.7 | 4.8 | 4.5 | 4.7 | 4.5          | 3.7                                  | 3.3 | 3.3 | 3.6 | 4.0 |

POTASSIUM ( CONTINUED )

Second day

Fifth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|-------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |             | 30                                   | 60  | 90  | 120 | 150 |
| N 14       | 3.5          | 3.1                                  | 2.8 | 3.4 | 2.7 | 3.2 | 2.7         | 2.2                                  | 2.2 | 2.0 | 2.1 | 2.2 |
| N 15       | 5.2          | 3.8                                  | 4.1 | 4.5 | 4.7 | 4.3 | -           | -                                    | -   | -   | -   | -   |
| N 16       | 4.7          | 4.4                                  | 4.4 | 3.3 | 3.7 | 4.3 | -           | -                                    | -   | -   | -   | -   |
| N 17       | 4.1          | 3.6                                  | 3.6 | 3.1 | 3.2 | 3.6 | 3.8         | 4.2                                  | 3.4 | 4.1 | 3.8 | 3.8 |

Healthy premature infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 3 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| P 4 | 4.8 | 4.7 | 4.7 | 4.0 | 4.4 | 4.6 | -   | -   | -   | -   | -   | -   |
| P 5 | 5.9 | 5.6 | 4.8 | 4.8 | 4.7 | 4.9 | 3.5 | 3.2 | 3.3 | 3.3 | 3.6 | 3.4 |
| P 6 | 5.6 | 5.4 | 4.8 | 5.2 | 5.2 | 5.2 | 4.3 | 3.7 | 3.5 | 3.7 | 3.2 | 3.1 |
| P 7 | 4.4 | 3.7 | 4.1 | 4.1 | 3.6 | 3.6 | -   | -   | -   | -   | -   | -   |
| P 8 | 5.2 | 4.6 | 4.3 | 4.6 | 4.1 | 3.7 | -   | -   | -   | -   | -   | -   |
| P 9 | 4.3 | 4.0 | 3.7 | 3.9 | 3.9 | 3.9 | -   | -   | -   | -   | -   | -   |

Second day

POTASSIUM ( CONTINUED )

Eighth day

| Infant<br>No. | Basal<br>level. | Minutes after glucose administration |     |     |     |     | Basal<br>level. | Minutes after glucose administration |     |     |     |     |
|---------------|-----------------|--------------------------------------|-----|-----|-----|-----|-----------------|--------------------------------------|-----|-----|-----|-----|
|               |                 | 30                                   | 60  | 90  | 120 | 150 |                 | 30                                   | 60  | 90  | 120 | 150 |
| P 10          | 4.9             | 3.9                                  | 3.6 | -   | -   | -   | -               | -                                    | -   | -   | -   | -   |
| P 11          | 5.4             | 5.2                                  | 5.3 | 4.8 | 5.3 | 5.2 | 3.8             | 3.5                                  | 3.4 | 3.3 | 3.3 | 3.5 |
| P 12          | 5.8             | 5.8                                  | 5.8 | 5.8 | 5.8 | 5.2 | -               | -                                    | -   | -   | -   | -   |
| P 13          | 6.4             | 5.7                                  | 5.3 | 5.5 | 4.7 | 4.5 | 4.3             | 3.5                                  | 3.4 | 3.2 | 3.5 | 3.8 |
| P 14          | 5.0             | 4.5                                  | 4.4 | 4.0 | 4.3 | 4.1 | 3.9             | 3.6                                  | 3.2 | 3.0 | 3.9 | 3.9 |
| P 15          | 5.0             | 4.8                                  | 4.2 | 4.3 | 4.8 | 4.3 | 4.1             | 3.7                                  | 3.0 | 3.7 | 3.9 | 4.3 |

Healthy low birth weight infants :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L 1 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| L 3 | 4.7 | 4.3 | 4.1 | 3.9 | 4.2 | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 | 4.6 | 4.6 |
| L 4 | 5.7 | 5.6 | 4.2 | 4.0 | 3.9 | 4.7 | -   | -   | -   | -   | -   | -   |
| L 5 | 5.6 | 4.7 | 5.8 | 5.2 | 5.3 | 5.5 | 4.6 | 3.9 | 3.5 | 3.8 | 4.5 | 4.5 |
| L 6 | 6.6 | 6.3 | 5.4 | 6.4 | 6.0 | 5.1 | 4.4 | 4.3 | 3.4 | 3.6 | 3.7 | 4.2 |
| L 7 | 4.4 | 4.4 | 3.4 | 3.4 | 3.9 | 4.1 | 4.2 | 4.2 | 4.1 | 4.1 | 4.1 | 4.2 |

POTASSIUM ( CONTINUED )

Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| L 8        | 4.7          | 3.5                                  | 3.5 | 3.5 | 4.0 | 3.9 | 3.2          | 3.0                                  | 2.8 | 3.3 | 3.2 | 3.3 |
| L 9        | 4.1          | 3.4                                  | 3.5 | 2.9 | 4.2 | 4.7 | 2.7          | 2.3                                  | 2.0 | 2.0 | 2.3 | 2.0 |
| L 10       | 4.5          | 5.7                                  | 5.7 | 5.7 | 5.1 | 5.1 | 4.6          | 3.6                                  | 3.6 | 3.6 | 3.6 | 3.7 |
| L 11       | 5.6          | 4.7                                  | 5.2 | 4.1 | 3.8 | 4.5 | -            | -                                    | -   | -   | -   | -   |
| L 12       | 5.6          | 4.9                                  | 4.9 | 5.0 | 4.9 | 4.9 | -            | -                                    | -   | -   | -   | -   |
| L 13       | 4.8          | 4.4                                  | 4.2 | 4.0 | 4.3 | 4.7 | 3.5          | 3.5                                  | 3.5 | 3.5 | 3.6 | 3.6 |
| L 14       | 4.3          | 4.1                                  | 3.6 | 3.5 | 3.2 | 3.6 | 4.2          | 3.0                                  | 3.0 | 3.1 | 3.2 | 3.2 |
| L 15       | 3.2          | 3.2                                  | 3.5 | 2.9 | 3.5 | 2.9 | 3.1          | 3.3                                  | 2.9 | 2.9 | 2.9 | 3.1 |

Infants delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| F 1 | 4.7 | 4.4 | 4.4 | 4.3 | 4.3 | 3.8 | 3.7 | 3.6 | 3.7 | 3.7 | 3.7 | 3.7 |
| F 2 | -   | -   | -   | -   | -   | -   | 4.3 | 3.6 | 3.7 | 3.5 | 3.9 | 3.9 |
| F 3 | 4.2 | 3.7 | 3.4 | 3.3 | 3.1 | 3.4 | 4.0 | 3.6 | 3.4 | 3.4 | 4.0 | 4.0 |
| F 4 | 3.5 | 2.9 | 3.4 | 3.2 | 3.2 | 3.4 | -   | -   | -   | -   | -   | -   |
| F 5 | 3.5 | 3.2 | 2.9 | 2.6 | 2.9 | 2.6 | 2.4 | 2.3 | 2.3 | 2.1 | 1.9 | 1.8 |

Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |     |     |     |     | Basal level. | Minutes after glucose administration |     |     |     |     |
|------------|--------------|--------------------------------------|-----|-----|-----|-----|--------------|--------------------------------------|-----|-----|-----|-----|
|            |              | 30                                   | 60  | 90  | 120 | 150 |              | 30                                   | 60  | 90  | 120 | 150 |
| F 6        | 5.0          | 4.0                                  | 3.1 | 3.6 | 3.3 | 3.3 | 3.6          | 3.5                                  | 3.1 | 3.1 | 2.4 | 2.5 |
| F 7        | 3.9          | 3.5                                  | 3.1 | 3.6 | 4.1 | 4.1 | 4.1          | 4.1                                  | 3.3 | 3.3 | 3.3 | 3.3 |
| F 8        | 3.3          | 3.3                                  | 3.3 | 3.3 | 3.1 | 3.2 | 3.7          | 3.6                                  | 3.1 | 3.2 | 3.3 | 3.9 |

Infants delivered by Caesarean Section :

|       |     |     |     |     |     |     |     |     |     |     |     |     |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| G 1   | 4.2 | 4.2 | 3.6 | 4.2 | 4.3 | 4.3 | 4.5 | 3.5 | 3.6 | 3.6 | 3.8 | 4.1 |
| G 2   | 4.7 | 4.0 | 3.6 | 3.6 | 3.6 | 3.7 | 5.3 | 4.8 | 5.0 | 4.8 | 4.5 | 4.8 |
| G 3   | 4.8 | 4.8 | 4.6 | 4.6 | 4.7 | 4.6 | 4.3 | 4.2 | 4.0 | 3.6 | 3.9 | 4.2 |
| G 4   | 4.8 | 4.5 | 4.7 | 4.7 | 4.7 | 4.7 | 4.5 | 4.0 | 4.1 | 3.6 | 3.7 | 3.6 |
| G 5   | 4.5 | 4.2 | 4.1 | 4.2 | 4.2 | 4.0 | 3.5 | 3.4 | 2.9 | 2.9 | 3.4 | 3.5 |
| G 6   | 5.8 | 5.7 | 5.1 | 4.9 | 5.0 | 5.2 | 4.6 | 3.9 | 3.7 | 4.3 | 4.4 | 4.5 |
| G 7   | 6.6 | 6.5 | 6.4 | 6.6 | 6.6 | 6.6 | -   | -   | -   | -   | -   | -   |
| G 8   | 4.0 | 3.2 | 3.3 | 3.0 | 3.1 | 3.4 | 2.9 | 2.9 | 2.9 | 2.6 | 2.6 | 2.6 |
| *G 9  | 5.9 | 5.7 | 5.7 | 5.5 | 5.5 | 5.5 | 4.3 | 4.1 | 4.1 | 4.2 | 4.2 | 4.4 |
| *G 10 | 6.0 | 6.0 | 6.0 | 5.3 | 5.6 | 6.0 | 4.7 | 4.0 | 4.2 | 4.2 | 4.2 | 4.2 |

\* Premature infants

POTASSIUM ( CONTINUED )

06  
27 Second day

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

Full - term infants with maternal toxemia :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T 1 | 6.0 | 6.0 | 5.9 | 5.6 | 5.4 | 5.3 | 4.6 | 4.6 | 4.3 | 3.8 | 4.6 | 4.6 |
| T 2 | 4.4 | 3.8 | 3.6 | 3.4 | 3.0 | 3.6 | 3.1 | 3.0 | 3.0 | 2.9 | 2.9 | 2.8 |
| T 3 | 5.0 | 4.8 | 4.7 | 4.1 | 4.3 | 4.9 | -   | -   | -   | -   | -   | -   |
| T 4 | 5.1 | 4.8 | 3.5 | 3.6 | 4.0 | 3.6 | 3.8 | 3.5 | 3.5 | 3.2 | 3.0 | 3.2 |
| T 5 | 4.5 | 4.3 | 3.9 | 3.9 | 3.9 | 4.4 | 3.0 | 3.0 | 3.0 | 2.9 | 2.8 | 2.8 |

Infants with maternal toxemia delivered by forceps application :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T 6 | 4.9 | 4.1 | 4.2 | 4.0 | 3.8 | 3.7 | -   | -   | -   | -   | -   | -   |
| T 7 | 5.3 | 4.9 | 4.3 | 5.0 | 5.2 | 5.3 | 4.0 | 4.0 | 3.5 | 3.5 | 3.6 | 3.9 |

Premature infants with maternal toxemia :

|      |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| T 8  | 5.1 | 4.8 | 4.0 | 3.6 | 3.8 | 4.1 | 2.6 | 2.7 | 2.2 | 2.0 | 1.7 | 1.8 |
| T 9  | 4.7 | 4.4 | 5.0 | 5.2 | 3.9 | 3.8 | 3.7 | 3.7 | 3.3 | 3.5 | 3.5 | 3.5 |
| T 10 | 4.9 | 4.8 | 4.7 | 4.6 | 4.1 | 4.3 | 3.5 | 3.3 | 3.2 | 3.2 | 3.3 | 3.3 |

## POTASSIUM ( CONTINUED )

Eighth day

| Infant No. | Basal level. | Minutes after glucose administration |    |    |     |     | Basal level. | Minutes after glucose administration |    |    |     |     |
|------------|--------------|--------------------------------------|----|----|-----|-----|--------------|--------------------------------------|----|----|-----|-----|
|            |              | 30                                   | 60 | 90 | 120 | 150 |              | 30                                   | 60 | 90 | 120 | 150 |

## Infants of diabetic mothers :

|      |     |     |     |     |     |     |     |     |     |     |     |     |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| D 1  | 7.3 | 7.1 | 7.1 | 7.0 | 7.0 | 7.3 | 6.0 | 5.8 | 5.8 | 4.8 | 5.0 | 5.2 |
| *D 2 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| *D 3 | -   | -   | -   | -   | -   | -   | 5.3 | 4.1 | 3.6 | 2.9 | 3.1 | 3.9 |

## Premature infant who showed signs of sclerema on the fourth day of life :

|     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| S 1 | 6.0 | 6.0 | 6.0 | 5.6 | 5.5 | 5.6 | 4.4 | 4.4 | 4.1 | 4.5 | 4.5 | 4.0 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

\* Delivered by Caesarean Section.