

# Postpartum Visit SCHEDULE

# Guideline for timing postpartum visits

# Contributors

MIDWIFERY TASK FORCE ON POSTPARTUM VISIT SCHEDULES

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# INTRODUCTION

The delivery of quality, continuous care of the parent-infant dyad in the postpartum period has been a central component of midwifery since regulation, highly valued by both clients and midwives. Midwives provide multiple visits to the parent-infant dyad in this critical transition period, offering clinical screens, physical assessments, mental health assessments, infant growth and development monitoring, and support for the establishment of breastfeeding and parent-infant bonding. In 2016-2017, midwives provided a mean of 6.6 postpartum visits to their clients (ranging from 0-25) in hospital, home or clinic settings, in accordance with clinical judgement and client needs. (1) Excellent outcomes for both parent and infant, as well as high client satisfaction are often attributed to this unique model of care in the six weeks following birth.

In June 2018, the College of Midwives of Ontario (CMO) rescinded the 'Postpartum/Newborn Visits Standard' which recommended a schedule (timing and number of visits) for postpartum visiting. (2) The CMO deemed this standard limiting to midwives' ability to exercise clinical judgement and adapt to changes in best practice. (3) In light of this, the Association of Ontario Midwives (AOM) sought to determine if evidence was available on postpartum visit schedules that best optimize the health and well-being of the parent-infant dyad in order to assist midwives with evidence-based decision-making about postpartum visit scheduling. The purpose of this document is to synthesize the evidence related to postpartum visit schedules in midwifery care. The focus is not to synthesize evidence related to provision of clinical care (i.e. content or healthcare provision) during midwifery postpartum visits, as this was not identified as a research or clinical guidance priority by midwives or midwifery stakeholders. Practice tips provided in this document are not intended to dictate a course of action, but rather to inform midwives' clinical decision-making.

# **MIDWIFERY POSTPARTUM VISIT SCHEDULES**

Midwifery's unique model of postpartum visits during the postpartum period has been built around the delivery of multiple visits, the delivery of postpartum care at home and the delivery of dyad-centred, individualized care. These components, which have been in place since regulation, are central to the success of midwifery care in the postpartum period.

# **Multiple Visits**

Multiple postpartum visits have been a hallmark of postpartum midwifery care in Ontario since regulation in 1994, though specific schedules have varied. The AOM's Guidelines to the Standards of Practice (1994) recommended a postpartum visit schedule that included one visit on day one, one visit on day three, one visit between days five and seven, one visit between days ten and fourteen and one follow-up visit between weeks three to six, with further contact as necessary. (4) This schedule was adopted and/or adapted by practice groups across the province over the following years. In 2015, the CMO introduced the 'Postpartum/Newborn Visits Standard,' which was intended to formalize visiting practices that were already in place for many practice groups across the province. The Standard recommended midwives provide one visit within 24 hours of birth, one visit between days two and three, one visit between days seven to fourteen, one visit between weeks three and four and one visit at approximately six weeks (discharge visit). (2)

Continuous contact throughout the first week allows midwives to offer preventive care, education and support, as well as maternal and newborn screens and assessments, as outlined in the Provincial Council for Maternal and Child Health (PCMCH) Standards of Postnatal Care for Mothers and Newborns in Ontario: Birth to One-Week Postnatal Period. (5) Multiple postpartum visits, with emphasis on early visiting, have been integral to the success of the midwifery model in

Ontario. Midwifery focus in the early postpartum period contributes to high rates of human milk feeding among clients at three days (97.2%) and discharge (93.4%), as well as low rates of hospital readmission for both newborns and birth parents. (6) Beyond visits, clients have 24-hour access to midwifery care, with midwives providing further postpartum contact by telephone.

### **Home Visits**

The provision of postpartum care at home was established as key to the midwifery model at the time of regulation, upholding the midwifery belief that comprehensive postpartum care for the parentinfant dyad is best provided in the client's home. (7) Current Professional Standards, outlined by the College of Midwives of Ontario, require midwives to "take reasonable steps" to provide care in the early postpartum period in the setting of their clients' choice. (8) Midwives support clients in determining the appropriate setting of their visits and recognize that home may not be optimal for every client. However, midwives believe that in most cases, early postpartum care should be delivered at home, where possible, as these visits are the least disruptive and most supportive of the dyad. Current practice reflects this, as in 2016-2017, midwives provided an average of three visits at home, ranging from 0 to 21 home visits. (1)

# **Dyad-Centred Individualized Care**

In the postpartum period, midwives provide care for both the birthing parent and newborn simultaneously, supporting the dyad as an intrinsically connected unit and reducing the potential for fragmented postpartum care. Postpartum visits focus on supporting the needs of the dyad; recognizing the client as a primary decision-maker with individual needs, values and preferences has been a principle of midwifery care since its inception. In the postpartum period, this means that postpartum visit schedules may be adjusted to fit the individual dyad's needs.1

<sup>&</sup>lt;sup>1</sup> The value of this approach is now being recognized more widely within the province, the country and internationally, with increasing support for the development of individualized care plans in consultation with clients among guideline groups, standards and committee opinions (CMO, Registered Nurses' Association of Ontario [RNAO], the Canadian Paediatric Society [CPS], the National Institute for Health and Care Excellence [NICE], the Royal Australian and New Zealand College of Obstetricians and Gynaecologists [RANZCOG] and the American College of Obstetricians and Gynecologists [ACOG]). (8,25,42,45-47)

# **METHODS**

Recognizing the unique components of postpartum midwifery care, this guideline seeks to provide a summary of the evidence on postpartum visit schedules for healthy postpartum parent-infant dyads within the context of Canadian midwifery care. An expert task force of Ontario midwives determined key research questions and outcomes, as well as the key physiological changes, concerns and development milestones that occur in the first six weeks postpartum.

# **Evidence Review**

MEDLINE, CINAHL and Cochrane were searched. Studies were selected for inclusion if settings were well-resourced/developed countries with similar health-care settings, populations were parents and infants who underwent low-risk pregnancies, and different schedules of postpartum visits were compared. Studies that examined postpartum visits compared to no postpartum visits were not included, as this visit model of care is not applicable to midwifery care in Ontario. Please see Full Evidence Review for more details on search strategy and study inclusion.

The Grading of Recommendations, Assessment,
Development and Evaluation (GRADE) methodology
was used to determine the certainty of the evidence
(how certain we ought to be in the results) based on
five GRADE domains: risk of bias, inconsistency,
indirectness, imprecision and publication bias.
Methodological concerns about the included studies,
variability across results, applicability of the evidence to
the Ontario midwifery model, precision of the results
and completeness of the evidence base are considered
as part of these domains.

# **Epidemiological Review**

In order to better understand how physiological changes may impact the importance of postpartum visit schedules, the expert task force also identified conditions, concerns and milestones occurring in the postpartum period; epidemiological data related to the onset and presentation of these postpartum conditions was sought and summarized.

# RESEARCH ON TIMING OF POSTPARTUM VISITS

Evidence on the timing of postpartum visits within the context of the Canadian midwifery model of care were limited. Both studies that were identified examined the delivery of earlier vs. later postpartum contact after varying lengths of hospital stays. (9,10) One study suggested that earlier contact resulted in lower rates of depressive symptoms, higher satisfaction and little or no difference in newborn readmissions, rates of emergency room visits or breastfeeding continuation. Another study suggested that earlier contact resulted in lower 30-day newborn readmission rates. Using the GRADE approach, our certainty in this body of evidence is very low, as there were concerns about study design and applicability to the Ontario midwifery context in terms of discharge times and population. See Full Evidence Review for details of the included studies.

# RESEARCH ON NUMBER OF POSTPARTUM VISITS

Seven studies were identified that investigated the number of postpartum contacts within the context of the Canadian midwifery model of care. (11–18) Using the GRADE approach, our overall certainty in the evidence was low, due to concerns about study design, sample sizes and applicability to the Ontario midwifery context. Unfortunately, due to the heterogeneity across studies, we were unable to pool results. Variation in the studies included:

- different numbers of postpartum visits (three vs. one contact, six vs. one contact, six vs. four home visits, six visits and 12 calls vs. one visit and various numbers of postpartum visits) at varying intervals
- different care providers (midwives, nurses, lactation consultations, health visitors and physicians)
- different content/focus of the postpartum interventions (interventions focused solely on newborn health vs. parent-infant dyad, interventions targeting birthing parent fatigue and interventions examining flexible schedules)
- different outcomes measured at different timepoints

As such, we are unable to determine whether the effects (or lack of effects) are due to the number of contacts or to the components of the intervention. It is important to note that no studies matched the Ontario midwifery context, and in particular, no studies examined optimal number of postpartum visits in the first week.

See Full Evidence Review for details of included studies.

# RESEARCH GAPS

Research on the impacts of the Ontario midwifery model of postpartum care on the health and well-being of the parent-infant dyad is required. Existing research evidence is not compatible with the Ontario midwifery context, which includes choice of birth setting, short hospital discharge times, multiple postpartum visits, care at home and a focus on the dyad extending beyond simple clinical assessments to the establishment and maintenance of healthy families. Postpartum outcomes for both parents and newborns in Ontario are excellent. It would follow that the midwifery model of care and postpartum visit schedule (on average, three visits in the client's home in the first week postpartum and another three visits up to six weeks postpartum) would be contributing factors to these excellent postpartum outcomes. However, due to a lack of research on the impacts of the Ontario midwifery postpartum care schedule on client outcomes in the province, we do not yet understand how these outcomes are linked to or affected by postpartum visit schedules. Ontario midwives are encouraged to conduct research on the unique model of postpartum care within our context in order to understand which schedules best support the dyad.

# **EPIDEMIOLOGICAL DATA**

In the absence of strong research evidence, epidemiological information on the typical onset and presentation of clinical conditions, as well as typical physiologic stages of chest/breastfeeding and lactogenesis may be considered in determining schedules of postpartum visits. This list is not exhaustive, but instead highlights some of the most common clinical concerns in the postpartum period, for the low-risk parent-infant dyad. A visual summary indicating typical timing is provided below.

# **During the first 24 hours:**

- Early onset group B streptococcus: clinical signs present within six hours in 80% of cases and within 24 hours in 90% to 95% of cases; 4% of cases present at 24 to 48 hours and 1% of cases present beyond 48 hours. (19)
- Early onset sepsis (general): defined as onset of sepsis in a newborn within the first week; most newborns are symptomatic within the first 24 hours. (20)
- Pathologic jaundice: visible jaundice within the first 24 hours may be an indication of pathologic jaundice, though not all will present early. (21)
- Vitamin K deficiency bleeding: early vitamin K deficiency bleeding occurring in the first 24 hours post-birth is commonly associated with maternal medications inhibiting vitamin K activity. (22)
  - The Canadian Paediatric Society (CPS) recommends a single 0.5 mg to 1.0 mg intramuscular (IM) injection of vitamin K to all newborns shortly after birth to prevent vitamin K deficiency bleeding. For parents who decline IM vitamin K, CPS recommends a 2.0 mg oral dose of vitamin K administered within six hours of birth, then repeated at two to four weeks of age and again at six to eight weeks of age. (22)
- Intestinal obstruction: 99% of healthy term infants pass first stool within 24 hours of birth; failure to pass meconium may indicate intestinal obstruction. (23)
- Renal dysfunction or genitourinary abnormalities:
   97% of infants pass urine in the first 24 hours; delayed urine passage beyond 24 hours may indicate renal dysfunction or genitourinary abnormalities. (24)
- Stages of lactogenesis, breast/chestfeeding initiation and continuation: Stage I (secretory differentiation) from mid-pregnancy to day two to three postpartum, including production of colostrum. (25)
  - Registered Nurses' Association of Ontario (RNAO) recommends assessing the process at key stages of lactogenesis during Stage I (within 24 hours and prior to discharge from place of birth) to support initiation. (25)

# During the first 24 to 48 hours:

- Critical congenital heart defects (CCHD): ductus arteriosus should be closed by 24 hours, allowing for accurate detection; delayed assessment beyond 48 hours introduces increased risk of severe complications.
  - The AOM endorses the Midwifery CCHD Advisory Group of Newborn Screening Ontario's (NSO) recommendation that midwives offer pulse oximetry screening<sup>2</sup> between 24 to 36 hours, and up to 48 hours post-birth. (26)
- Newborn diseases (metabolic diseases, endocrine diseases, sickle cell diseases, cystic fibrosis and severe combined immune deficiency): in approximately 20 of the diseases screened: 10% to 20% of affected infants will become symptomatic in the first week; 5% to 10% may die in the first week. (27)

NSO recommends blood spot specimen collection<sup>3</sup> between 24 to 48 hours.

# During the first 72 hours and the first week:

- Physiologic jaundice: peak TSB concentration usually occurs between days three to five. (28)
  - PCMCH recommends bilirubin screening between 24 to 72 hours of life. (5)
- Classic vitamin K deficiency bleeding: occurring at days two to seven and associated with low intake of vitamin K. (22)
- Rh alloimmunization: clinical trials demonstrate effectiveness of postpartum prophylaxis during the 72 hour window; maternal alloimmunization occurs in 0.4 per 1000 births. (29)

The Society of Obstetricians and Gynaecologists of Canada (SOGC) recommends anti-D immunoglobulin G to Rh-negative clients who have an Rh-positive newborn within the first 72 hours.

- Endometritis: usually occurs within two to four days postpartum or as late as two to six weeks postpartum. (30)
- Hypertensive disorders of pregnancy: postpartum
  hypertension varies in its symptoms, signs and severity;
  blood pressure is thought to peak at three to six days
  postpartum.
  - AOM recommends offering blood pressure measurement at all regularly scheduled postpartum visits for clients diagnosed with hypertensive disorders of pregnancy for the first two weeks postpartum or until blood pressure has returned to normal for two consecutive visits. (31)
- Postpartum psychosis: symptom onset typically presents 48 hours to two weeks after birth. (32)
- Stages of lactogenesis, breast/chestfeeding initiation and continuation: Stage II (secretory activation) from day two or three to day eight; increase in milk volume then levels off.

RNAO recommends assessing the process at key stages of lactogenesis during transition between Stage I and Stage II (between days two to eight postpartum) to support increase in human milk volume. (25)

# During the first two to three weeks:

- Late-onset newborn sepsis: peak incidence 10 to 22 days of life; usually defined as > 72 hours of life. (33)
- Secondary or delayed postpartum hemorrhage: defined as excessive vaginal bleeding between 24 hours and 12 weeks postpartum; 80% occur within the first two weeks. (30)
- Thromboembolism: incidence highest in the first three weeks after birth. (34)
- Postpartum pulmonary embolism: leading cause of maternal mortality in Canada; highest risk in the first three weeks postpartum. (35)

<sup>&</sup>lt;sup>2</sup> CCHDs that can be screened with pulse oximetry screening include hypoplastic left heart syndrome, pulmonary atresia (with intact septum), tetralogy of Fallot, total anomalous pulmonary venous return, transposition of the great arteries, tricuspid atresia and truncus arteriosus.

<sup>&</sup>lt;sup>3</sup> Newborn diseases that can be screened with NSO newborn screening panel: phenylketonuria and variants/biopterin defects, maple syrup urine disease, homocystinuria (hypermethioninemias), citrullinemias/argininosuccinic aciduria, tyrosinemias, aminoacidopathies (other), propionic/methylmalonic acidemias, isovaleric acidemia/2-methylbutyric acidemia, glutaric acidemia type 1, 3-methylcrotonic/hydroxymethylglutaric/methylglutaconic/2-methyl, 3-hydroxybutyric acidemias, or β-ketothiolase deficiency, medium-chain acyl-CoA dehydrogenase deficiency/glutaric acidemia type 2, very long-chain acyl-CoA dehydrogenase deficiency, long-chain hydroxyl-acyl-CoA dehydrogenase/trifunctional protein deficiencies, carnitine uptake defect, fatty acid oxidation disorders (other), galactosemia, biotinidase deficiency, congenital hypothyroidism, congenital adrenal hyperplasia, sickle cell and other hemoglobinopathies, cystic fibrosis, and severe combined immune deficiency.

- Mastitis: highest occurrence in the first few weeks postpartum. (36)
- Stages of lactogenesis, breast/chestfeeding initiation and continuation: Stage III (galactopoiesis) from day nine onwards; milk production maintained through supply and demand. (25)

RNAO recommends assessing the process at key stages of lactogenesis during Stage II and Stage III (day nine onwards) to support maintenance. (25)

# Throughout the postpartum period or later in the postpartum period:

- Neonatal ophthalmia: conjunctivitis that occurs within the first 28 days in 1% to 12% of newborns. (37)
- Congenital cataracts: present at birth or shortly afterwards; early treatment important to reduce longterm vision problems.
  - National Screening Committee (NSC) in the UK recommends red reflex screening for newborns at birth and at six to eight weeks. (38)
- Late vitamin K deficiency bleeding: occurring at two to 12 weeks and up to six months and associated with chronic malabsorption and low vitamin K intake. (22)
- Postpartum infections (wound infection, urinary tract infection, mastitis, endometritis): most infections occur within the first few weeks postpartum. (30)

• Postpartum depression: affects 10% to 15% of birthing parents; often occurs by four weeks postpartum. (39,40)

RNAO recommends routine screening for risk of perinatal depression, using a valid tool, as part of prenatal and postnatal care. No recommendations regarding specific tool, frequency or timing were made, as findings were not consistent. (41)

PCMCH does not specify routine screening for postpartum depression, but recommends the Edinburgh Postnatal Depression Scale be used according to judgment. (5)

# Additional postpartum milestones:

• Growth monitoring: weight loss during first week of life is normal; return to birth weight by 12 to 14 days of age and continued growth during first month. (42)

There are no standard recommendations on timing of growth monitoring, though failure to regain birth weight, or loss of 10% of birth weight by three weeks are considered prompts for referral or consultation. (43,44)

- Uterine involution: return to non-pregnancy state typically by six weeks. (30)
- Normal progression of lochia.

TABLE 1. CLINICAL PRESENTATION IN THE POSTPARTUM PERIOD  The highlighted cells represent the time periods in which the condition typically presents; time periods shaded darker represent critical timepoints in the presentation.	0-24 HOURS	24-36 HOURS	36-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS	120-144 HOURS	144-168 HOURS	7 DAYS	10 DAYS	14 DAYS	21 DAYS	4 WEEKS	6 WEEKS
Early onset Group B Streptococcus														
Early onset sepsis (general)														
Late onset sepsis														
Jaundice	PATHOLOGIC				PHYSIOLOGIC									
Critical congenital heart disease														
Newborn bloodspot screen panel*														
Vitamin K deficiency bleeding														
Intestinal obstruction														
Renal dysfunction or genitourinary abnormalities														
Neonatal ophthalmia														
Congenital cataracts														
Chest/breastfeeding: Stage I (including colostrum)														
Chest/breastfeeding: Stage II (initiation of milk production)														
Chest/breastfeeding: Stage III (maintenance)														
Infant growth monitoring														
Rh alloimmunization														
Endometritis														
Secondary postpartum hemorrhage														
Hypertensive disorders														
Thromboembolism														
Mastitis														
Postpartum depression														
Postpartum psychosis														
Uterine involution														

# SCHEDULING POSTPARTUM VISITS: PRACTICE POINTS

The following practice points do not outline a minimum number of visits for optimal postpartum care. Instead, these practice points outline optimal time windows for the delivery of at least three postpartum visits. A typical course of midwifery care in Ontario includes three to five postpartum visits at home or in hospital, as well as one to three clinic visits.

These practice points acknowledge midwives' clinical expertise in the postpartum period and their ability to determine a schedule of postpartum visits that best optimizes the health and well-being of the dyad, according to their clients' needs. Clients are recognized as primary decision-makers and client preferences and values are also considered in the scheduling of postpartum visits.

1. Visit the parent-infant dyad in the setting of the client's choice to best optimize the health and well-being of the parent-infant dyad within the first 48 hours of birth.

Midwives are encouraged to consider the following when determining exact timing and number of visits:

- Midwifery practices of visiting within the first few days after birth
- As most responsible providers, midwives are responsible to ensure appropriate windows for offering newborn screening: NSO bloodspot screening at 24 to 48 hours; NSO CCHD screening at 24 to 48 hours (optimal window 24 to 36 hours); PCMCH recommends bilirubin screening between 24 to 72 hours of life
- Epidemiological evidence on clinical presentation of concerns in the first 48 hours
- Physiologic transitions related to the establishment and continuation of breast/chest feeding
- CMO standards on providing care in the setting of the client's choice in the first week
- Birthplace location, client clinical context and continuity of care may also help determine timing of visits, depending on involvement of other health-care providers. If the health and well-being of the parent-infant dyad are already being effectively monitored by another health-care provider in hospital, midwives may use their clinical judgement and consider client preferences for timing of visits, considering hospital discharge time. If out of hospital birth or early discharge from hospital, visit parent-infant dyad within 48 hours of birth
- 2. Visit the parent-infant dyad according to an individualized care plan in the setting of the client's choice at least one more additional time in the first week to best optimize the health and well-being of the parent-infant dyad.

Midwives are encouraged to consider the following when determining exact timing and number of visits:

- Midwifery practices of visiting between days two to three and days four to six for a total of three visits within the first week
- Appropriate time windows for offering newborn screening
- Epidemiological evidence on clinical presentation of concerns within the first week
- Physiologic transitions related to the establishment and continuation of breast/chest feeding
- Very low certainty evidence that suggests earlier contact during this time period may impact postpartum depression and client satisfaction
- CMO standards on providing care in the setting of the client's choice in the first week

Time all additional visits as needed to best optimize the health and well-being of the parentinfant dyad, considering the complete clinical picture and the client's clinical, psychosocial and emotional needs.

Midwives are encouraged to consider the following when determining exact timing of visits:

- Ontario midwifery practices of providing a mean of 6.6 postpartum visits (ranging from 0-25) (BORN), with historical guidance documents recommending three visits in the first week, and additional visits between weeks one and two, and weeks three and four
- Epidemiological evidence demonstrating a number of postpartum concerns that should be investigated or monitored with varying presentation
- Physiologic transitions related to continuation of chest/breastfeeding
- Low certainty of evidence on a number of different schedules showing varying effects, recognizing uncertainty in terms of an optimal schedule of postpartum contacts

# 4. Perform client discharge.

Midwives are encouraged to consider the following when determining exact timing of discharge:

- Typical midwifery course of care of approximately six weeks
- Postpartum physiologic transition milestones, including uterine involution, cessation of lochia and continuation of chest/breastfeeding

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