Canadian Paediatric Society / Société canadienne de pédiatrie
THE COLLEGE OF FAMILY PHYSICIANS OF CANADA / LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

Pregnancy/Birth remarks/Apgar:	Risk factors/Family history:

Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance

GUIDE I: 0-1 mo

NAME: _____ Birth Day (d/m/yr): _____ M [ ] F [ ]

Gestational Age: _____ Birth Length: _____ cm Birth Wt: _____ g Head Circ:_____ cm Discharge Wt:_____ g

DATE OF VISIT	within 1 week			2 weeks (optional)			1 month		
GROWTH[1] use WHO growth charts. Correct percentiles until 24-36 months if < 37 weeks gestation	**Height**	**Weight**	**HC** *(avg 35 cm)*	**Height**	**Weight** (regains BW 1-3 wks)	**Head Circ.**	**Height**	**Weight**	**Head Circ.**
PARENT/CAREGIVER CONCERNS									
NUTRITION[1]	❍ **Breastfeeding (exclusive)**[1] **Vitamin D 400 IU/day**[1] ❍ *Formula Feeding (iron-fortified)*[1] [150 mL(5 oz)/kg/day[1]] ❍ Stool pattern and urine output			❍ **Breastfeeding (exclusive)**[1] **Vitamin D 400 IU/day**[1] ❍ *Formula Feeding (iron-fortified)*[1] [150 mL(5 oz) /kg/day[1]] ❍ Stool pattern and urine output			❍ **Breastfeeding (exclusive)**[1] **Vitamin D 400 IU/day**[1] ❍ *Formula Feeding (iron-fortified)*[1] [450-750 mL(15-25 oz) /day[1]] ❍ Stool pattern and urine output		

EDUCATION AND ADVICE

✓ discussed and no concerns
X if concerns

Injury Prevention
❍ **Car seat (infant)**[1]
❍ Carbon monoxide/*Smoke detectors*[1]
❍ **Sleep position/room sharing/avoid bed sharing**[1]
❍ *Hot water <49°C*[1]
❍ **Crib safety**[1]
❍ Choking/safe toys[1]
❍ **Firearm safety/removal**[1]

Behaviour and family issues
❍ Sleeping/crying[2]
❍ Parenting/bonding
❍ Soothability/responsiveness
❍ Parental fatigue/postpartum depression[2]
❍ **High risk infants/assess home visit need**[2]
❍ Family conflict/stress
❍ Siblings

Other Issues
❍ **Second hand smoke**[1]
❍ *Counsel on pacifier use*[1]
❍ Fever advice/thermometers[1]
❍ **No OTC cough/cold medn**[1]
❍ *Temperature control and overdressing*
❍ *Inquiry on complementary/alternative medicine*[1]
❍ Sun exposure/sunscreens/insect repellent[1]

DEVELOPMENT[2] (Inquiry and observation of milestones) Tasks are set after the time of normal milestone acquisition. Absence of any item suggests consideration for further assessment of development. NB-Correct for age if < 37 weeks gestation ✓ if attained X if not attained		❍ Sucks well on nipple ❍ *No parent/caregiver concerns*	❍ *Focuses gaze* ❍ *Startles to loud noise* ❍ *Calms when comforted* ❍ Sucks well on nipple ❍ *No parent/caregiver concerns*
PHYSICAL EXAMINATION Evidence-based screening for specific conditions is highlighted, but an appropriate age-specific focused physical examination is recommended at each visit. ✓ if normal X if abnormal	❍ *Skin (jaundice, dry)* ❍ Fontanelles[1] ❍ **Eyes (red reflex)**[1] ❍ *Ears (TMs) Hearing inquiry/screening*[1] ❍ Heart/Lungs ❍ Umbilicus ❍ Femoral pulses ❍ Hips[1] ❍ Muscle tone[1] ❍ Testicles ❍ Male urinary stream/foreskin care	❍ *Skin (jaundice, dry)* ❍ Fontanelles[1] ❍ **Eyes (red reflex)**[1] ❍ *Ears (TMs) Hearing inquiry/screening*[1] ❍ Heart/Lungs ❍ Umbilicus ❍ Femoral pulses ❍ Hips[1] ❍ Muscle tone[1] ❍ Testicles ❍ Male urinary stream/foreskin care	❍ *Skin (jaundice)* ❍ Fontanelles[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex**[1] ❍ *Hearing inquiry/screening*[1] ❍ Heart ❍ Hips[1] ❍ Muscle tone[1]
PROBLEMS AND PLANS			
INVESTIGATIONS/IMMUNIZATION **Discuss immunization pain reduction strategies**[3]	❍ **PKU, Thyroid** ❍ **Hemoglobinopathy screen (if at risk)**[1] ❍ **Universal newborn hearing screening (UNHS)**[1] ❍ **If HBsAg-positive parent/sibling Hep B vaccine #1**[3] ❍ **Record Vaccines on Guide V**	❍ **Record Vaccines on Guide V**	❍ **If HBsAg-positive parent/sibling Hep B vaccine #2**[3] ❍ **Record Vaccines on Guide V**
Signature			

Strength of recommendation based on literature review using the classification of the Canadian Task Force on Preventive Health Care: **Good (bold type)**; *Fair (italic type)*; Consensus (plain type).
[1]see Rourke Baby Record Resources 1: General [2]see Rourke Baby Record Resources 2: Healthy Child Development [3]see Rourke Baby Record Resources 3: Immunization/Infectious Diseases

Disclaimer: Given the constantly evolving nature of evidence and changing recommendations, the Rourke Baby Record is meant to be used as a guide only.

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Past problems/Risk factors:	Family history:

Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance — GUIDE II: 2-6 mos

NAME: _____ Birth Day (d/m/yr): _____ M [ ] F [ ]

Gestational Age: _____ Birth Length: _____ cm Birth Wt: _____ g Birth Head Circ:_____ cm

DATE OF VISIT	2 months			4 months			6 months		
GROWTH[1] use WHO growth charts. Correct percentiles until 24-36 months if < 37 weeks gestation	**Height**	**Weight**	**Head circ.**	**Height**	**Weight**	**Head Circ.**	**Height**	**Weight** (x2 BW)	**Head Circ.**
PARENT/CAREGIVER CONCERNS									
NUTRITION[1]	❍ **Breastfeeding (exclusive)**[1] **Vitamin D 400 IU/day**[1] ❍ *Formula Feeding (iron-fortified)*[1] [600-900 mL(20-30 oz) /day[1]]			❍ **Breastfeeding (exclusive)**[1] **Vitamin D 400 IU/day**[1] ❍ *Formula Feeding (iron-fortified)*[1] [750-1080 mL(25-36 oz) /day[1]]			❍ **Breastfeeding**[1]**– initial introduction of solids** **Vitamin D 400 IU/day**[1] ❍ *Formula Feeding – iron-fortified*[1] [750-1080 mL(25-36 oz) /day[1]] ❍ No bottles in bed ❍ Avoid sweetened juices/liquids ❍ Iron containing foods (cereals, meat, egg yolk, tofu) ❍ Fruits and vegetables to follow ❍ No egg white, nut products, or honey ❍ Choking/safe food[1]		

EDUCATION AND ADVICE

✓ discussed and no concerns
X if concerns

Injury Prevention
- ❍ **Car seat (infant)**[1]
- ❍ **Sleep position/room sharing/avoid bed sharing/crib safety**[1]
- ❍ **Poisons**[1]**; PCC#**[1]
- ❍ **Firearm safety/removal**[1]
- ❍ *Electric plugs/cords*
- ❍ Carbon monoxide/*Smoke detectors*[1]
- ❍ *Hot water <49ºC/bath safety*[1]
- ❍ *Falls (stairs, change table, no walkers)*[1]
- ❍ Choking/safe toys[1]

Behaviour and family issues
- ❍ Sleeping/crying/**Night waking**[2]
- ❍ Soothability/responsiveness
- ❍ **High risk infants/assess home visit need**[2]
- ❍ Siblings
- ❍ Parenting/bonding
- ❍ Parental fatigue/postpartum depression[2]
- ❍ Family conflict/stress
- ❍ *Child care*[2]/return to work

Other Issues
- ❍ **Second hand smoke**[1]
- ❍ Teething/**Dental cleaning/Fluoride**[1]
- ❍ **No OTC cough/cold medn**[1]
- ❍ Fever advice/thermometers[1]
- ❍ *Temperature control and overdressing*
- ❍ *OTC/complementary/alternative medicine*[1]
- ❍ *Encourage reading*[2]
- ❍ Sun exposure/sunscreens/insect repellent[1]
- ❍ *Pesticide exposure*[1]
- ❍ *Pacifier use*[1]

DEVELOPMENT[2] (Inquiry and observation of milestones) Tasks are set <u>after</u> the time of normal milestone acquisition. <u>Absence of any item suggests consideration for further assessment of development.</u> NB-Correct for age if < 37 weeks gestation ✓ if attained X if not attained	❍ *Follows movement with eyes* ❍ *Coos - throaty, gurgling sounds* ❍ *Lifts head up while lying on tummy* ❍ *Can be comforted & calmed by touching/rocking* ❍ *Sequences 2 or more sucks before swallowing/breathing* ❍ Smiles responsively ❍ *No parent/caregiver concerns*	❍ *Follows a moving toy or person with eyes* ❍ *Responds to people with excitement (leg movement/ panting/vocalizing)* ❍ *Holds head steady when supported at the chest or waist in a sitting position* ❍ *Holds an object briefly when placed in hand* ❍ *Laughs/smiles responsively* ❍ *No parent/caregiver concerns*	❍ *Turns head toward sounds* ❍ *Makes sounds while you talk to him/her* ❍ *Vocalizes pleasure and displeasure* ❍ *Rolls from back to side* ❍ *Sits with support (e.g. pillows)* ❍ *Reaches/grasps objects* ❍ *No parent/caregiver concerns*
PHYSICAL EXAMINATION Evidence-based screening for specific conditions is highlighted, but an appropriate age-specific focused physical examination is recommended at each visit. ✓ if normal X if abnormal	❍ Fontanelles[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex**[1] ❍ *Hearing inquiry/screening*[1] ❍ Heart ❍ Hips[1] ❍ Muscle tone[1]	❍ Anterior fontanelle[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex**[1] ❍ *Hearing inquiry/screening*[1] ❍ Hips[1] ❍ Muscle tone[1]	❍ Anterior fontanelle[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ *Hearing inquiry/screening*[1] ❍ Hips[1] ❍ Muscle tone[1]
PROBLEMS AND PLANS			
INVESTIGATIONS/IMMUNIZATION **Discuss immunization pain reduction strategies**[3]	❍ **Record Vaccines on Guide V**	❍ **Record Vaccines on Guide V**	❍ Inquire about risk factors for TB ❍ **If HBsAg-positive parent/sibling Hep B vaccine #3**[3] ❍ **Record Vaccines on Guide V**
Signature			

Strength of recommendation based on literature review using the classification of the Canadian Task Force on Preventive Health Care: **Good (bold type)**; *Fair (italic type)*; Consensus (plain type).
[1]see Rourke Baby Record Resources 1: General [2]see Rourke Baby Record Resources 2: Healthy Child Development [3]see Rourke Baby Record Resources 3: Immunization/Infectious Diseases

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Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance — GUIDE III: 9-15 mos

Past problems/Risk factors:	Family history:

NAME: _____ Birth Day (d/m/yr): _____ M [ ] F [ ]

Gestational Age: _____ Birth Length: _____ cm Birth Wt: _____ g Birth Head Circ:_____ cm

DATE OF VISIT	**9 months** (optional)			**12-13 months**			**15 months** (optional)		
GROWTH[1] use WHO growth charts. Correct percentiles until 24-36 months if < 37 weeks gestation	**Height**	**Weight**	**Head circ.**	**Height**	**Weight** (x3 BW)	**HC** (avg 47cm)	**Height**	**Weight**	**Head Circ.**
PARENT/CAREGIVER CONCERNS									
NUTRITION[1]	❍ **Breastfeeding**[1]**/Vitamin D 400 IU/day**[1] ❍ *Formula Feeding - iron-fortified*[1] [720-960 mLs(24-32 oz) /day[1]] ❍ Avoid sweetened juices/liquids ❍ Encourage change from bottle to cup ❍ No bottles in bed ❍ Cereal, meat/alternatives, fruits, vegetables ❍ Cow's milk products (e.g., yogurt, cheese, homogenized milk) ❍ No egg white, nut products, or honey ❍ Choking/safe foods[1]			❍ **Breastfeeding**[1] ❍ Homogenized milk [500-750 mLs(16-24 oz) /day[1]] ❍ Avoid sweetened juices/liquids ❍ Promote standard cup instead of bottle ❍ Appetite reduced ❍ Choking/safe foods[1] ❍ Inquire re: vegetarian diets[1]			❍ **Breastfeeding**[1] ❍ Homogenized milk **[500-750 mLs(16-24 oz) /day[1]]** ❍ Avoid sweetened juices/liquids ❍ Promote standard cup instead of bottle ❍ Choking/safe foods[1] ❍ Inquire re: vegetarian diets[1]		
EDUCATION AND ADVICE ✓ discussed and no concerns X if concerns	Injury Prevention ❍ **Car seat (infant)**[1] ❍ **Poisons**[1]**; PCC#**[1] ❍ **Firearm safety/removal**[1] ❍ Carbon monoxide/*Smoke detectors*[1] ❍ *Hot water <49°C/bath safety*[1] Childproofing, including: ❍ *Electric plugs/cords* ❍ *Falls/stairs/no walkers*[1] ❍ Choking/safe toys[1] Behaviour and family issues ❍ Sleeping/crying/**Night waking**[2] ❍ Soothability/responsiveness ❍ **High risk children/assess home visit need**[2] ❍ Siblings ❍ *Parenting*[2] ❍ Parental fatigue/depression[2] ❍ Family conflict/stress ❍ *Child care*[2]/return to work Other Issues ❍ **Second hand smoke**[1] ❍ Teething/**Dental cleaning/Fluoride/Dentist**[1] ❍ *Complementary/alternative medicine*[1] ❍ **No OTC cough/cold medn**[1] ❍ Fever advice/thermometers[1] ❍ Active healthy living/screen time[1] ❍ *Encourage reading*[2] ❍ *Pacifier use*[1] ❍ Footwear[1] Environmental health including: ❍ Sun exposure/sunscreens/insect repellent[1] ❍ *Serum lead if at risk*[1] ❍ *Pesticide exposure*[1]								
DEVELOPMENT[2] (Inquiry and observation of milestones) Tasks are set after the time of normal milestone acquisition. Absence of any item suggests consideration for further assessment of development. NB-Correct for age if < 37 weeks gestation ✓ if attained X if not attained	❍ *Looks for an object seen hidden* ❍ *Babbles a series of different sounds (eg. baba, duhduh)* ❍ *Responds differently to different people* ❍ *Makes sounds/gestures to get attention or help* ❍ *Sits without support* ❍ *Stands with support when helped into standing position* ❍ *Opposes thumb and fingers when grasps objects* ❍ *Plays social games with you (eg. nose touching, peek-a-boo)* ❍ *Cries or shouts for attention* ❍ *No parent/caregiver concerns*			❍ *Responds to own name* ❍ *Understands simple requests, eg. Where is the ball?* ❍ *Makes at least 1 consonant/vowel combination* ❍ *Says 3 or more words (do not have to be clear)* ❍ *Crawls or 'bum' shuffles* ❍ *Pulls to stand/walks holding on* ❍ *Shows distress when separated from parent/caregiver* ❍ *Follows your gaze to jointly reference an object* ❍ *No parent/caregiver concerns*			❍ *Says 5 or more words (words do not have to be clear)* ❍ *Picks up and eats finger foods* ❍ *Walks sideways holding onto furniture* ❍ *Shows fear of strange people/places* ❍ *Crawls up a few stairs/steps* ❍ Tries to squat to pick up toys from the floor ❍ *No parent/caregiver concerns*		
PHYSICAL EXAMINATION Evidence-based screening for specific conditions is highlighted, but an appropriate age-specific focused physical examination is recommended at each visit. ✓ if normal X if abnormal	❍ Anterior fontanelle[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ *Hearing inquiry/screening*[1] ❍ Hips[1]			❍ Anterior fontanelle[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ *Hearing inquiry/screening*[1] ❍ Snoring/tonsil size[1] ❍ Teeth[1] ❍ Hips[1]			❍ Anterior fontanelle[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ *Hearing inquiry/screening*[1] ❍ Snoring/tonsil size[1] ❍ Teeth[1] ❍ Hips[1]		
PROBLEMS AND PLANS									
INVESTIGATIONS/IMMUNIZATION **Discuss immunization pain reduction strategies**[3]	❍ **If HBsAg positive mother check HBV antibodies and HBsAg**[3] **(at 9 or 12 months)** ❍ *Hemoglobin (If at risk)*[1] ❍ **Record Vaccines on Guide V**						❍ **Record Vaccines on Guide V**		
Signature									

Strength of recommendation based on literature review using the classification of the Canadian Task Force on Preventive Health Care: **Good (bold type);** *Fair (italic type)*; Consensus (plain type).
[1]see Rourke Baby Record Resources 1: General [2]see Rourke Baby Record Resources 2: Healthy Child Development [3]see Rourke Baby Record Resources 3: Immunization/Infectious Diseases

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Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance GUIDE IV: 18 mo - 5 yr (National)

Past problems/Risk factors:	Family history:

NAME: _____ Birth Day (d/m/yr): _____ M [ ] F [ ]

Gestational Age: _____ Birth Length: _____ cm Birth Wt: _____ g Birth Head Circ:_____ cm

DATE OF VISIT	18 months			2-3 years			4-5 years	
GROWTH[1] use WHO growth charts. Correct percentiles until 24-36 mos if < 37 weeks gestation	**Height**	**Weight**	**Head circ.**	**Height**	**Weight**	**HC** if prior abN	**Height**	**Weight**
PARENT/CAREGIVER CONCERNS								
NUTRITION[1]	❍ **Breastfeeding**[1] ❍ Homogenized milk [500-750 mLs(16-24 oz) /day[1]] ❍ Avoid sweetened juices/liquids ❍ No bottles			❍ 1% to 2% milk [~ 500 mLs(16 oz) /day[1]] ❍ *Gradual transition to lower fat diet*[1] ❍ Inquire re: vegetarian diets[1] ❍ Canada's Food Guide[1]			❍ 1% to 2% milk [~ 500 mLs(16 oz) /day[1]] ❍ Inquire re: vegetarian diets[1] ❍ Canada's Food Guide[1]	

EDUCATION AND ADVICE

✓ discussed and no concerns
X if concerns

	18 months	2-3 years	4-5 years
Injury Prevention	❍ **Car seat (child)**[1] ❍ *Bath safety*[1] ❍ Choking/safe toys[1]	❍ **Car seat** (child/booster)[1] ❍ **Bike helmets**[1] ❍ **Firearm safety/removal**[1] ❍ Carbon monoxide/*smoke detectors*[1] ❍ Matches ❍ *Water safety*[1]	
Behaviour	❍ Parent/child interaction ❍ *Discipline/Parenting skills programs*[2]	❍ Parent/child interaction ❍ *Discipline/parenting skills programs*[2] ❍ **High-risk children**[2] ❍ Parental fatigue/depression[1] ❍ Family conflict/stress ❍ Siblings ❍ **Assess child care** /*preschool needs*/school readiness[2]	
Family	❍ Parental fatigue/stress/depression[2] ❍ **High-risk children**[2]	❍ **Second-hand smoke**[1] ❍ **Dental cleaning/Fluoride/Dentist**[1] ❍ *No pacifiers*[1] ❍ *Complementary/alternative medicine*[1] ❍ Toilet learning[2] ❍ **No OTC cough/cold medn**[1] ❍ Active healthy living/screen time[1] ❍ Socializing opportunities ❍ *Encourage reading*[2]	
Other	❍ Socializing/peer play opportunities ❍ *Wean from pacifier*[1] ❍ **Dental care/Dentist**[1] ❍ Toilet learning[2] ❍ *Encourage reading*[2]	Environmental health including: ❍ Sun exposure/sunscreens/insect repellent[1] ❍ *Pesticide exposure*[1] ❍ *Serum lead if at risk*[1]	

DEVELOPMENT[2]
(Inquiry and observation of milestones)

Tasks are set after the time of normal milestone acquisition.

Absence of any item suggests consideration for further assessment of development.

NB-Correct for age if < 37 weeks gestation
✓ if attained
X if not attained

18 months	2-3 years	4-5 years
Social/Emotional ❍ *Child's behaviour is usually manageable* ❍ *Interested in other children* ❍ *Usually easy to soothe* ❍ *Comes for comfort when distressed* Communication Skills ❍ *Points to several different body parts* ❍ *Tries to get your attention to show you something* ❍ *Turns/responds when name is called* ❍ *Points to what he/she wants* ❍ *Looks for toy when asked or pointed in direction* ❍ *Imitates speech sounds and gestures* ❍ *Says 20 or more words (words do not have to be clear)* ❍ *Produces 4 consonants, e.g. B D G H N W* Motor Skills ❍ *Walks alone* ❍ *Feeds self with spoon with little spilling* Adaptive Skills ❍ *Removes hat/socks without help* ❍ *No parent/caregiver concerns*	**2 years** ❍ *Combines 2 or more words* ❍ *Understands 1 and 2 step directions* ❍ *Walks backward 2 steps without support* ❍ *Tries to run* ❍ *Puts objects into small container* ❍ *Uses toys for pretend play (eg. give doll a drink)* ❍ Continues to develop new skills ❍ *No parent/caregiver concerns* **3 years** ❍ *Understands 2 and 3 step directions (eg. "Pick up your hat and shoes and put them in the closet.")* ❍ *Uses sentences with 5 or more words* ❍ *Walks up stairs using handrail* ❍ *Twists lids off jars or turns knobs* ❍ *Shares some of the time* ❍ *Plays make-believe games with actions and words (eg. pretending to cook a meal, fix a car)* ❍ Turns pages one at a time ❍ Listens to music or stories for 5 - 10 minutes ❍ *No parent/caregiver concerns*	**4 years** ❍ *Understands 3-part directions* ❍ *Asks and answers lots of questions (eg."What are you doing?")* ❍ *Walks up/down stairs alternating feet* ❍ *Undoes buttons and zippers* ❍ *Tries to comfort someone who is upset* ❍ *No parent/caregiver concerns* **5 years** ❍ *Counts out loud or on fingers to answer "How many are there?* ❍ *Speaks clearly in adult-like sentences most of the time* ❍ *Throws and catches a ball* ❍ *Hops on 1 foot several times* ❍ *Dresses and undresses with little help* ❍ *Cooperates with adult requests most of the time* ❍ *Retells the sequence of a story* ❍ *Separates easily from parent/caregiver* ❍ *No parent/caregiver concerns*

PHYSICAL EXAMINATION Evidence-based screening for specific conditions is highlighted, but an appropriate age-specific focused physical examination is recommended at each visit. ✓ if normal X if abnormal	❍ Anterior fontanelle closed[1] ❍ **Eyes (red reflex)**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ Hearing inquiry ❍ Snoring/tonsil size[1] ❍ Teeth[1]	❍ *Blood pressure* ❍ **Eyes (red reflex)/Visual acuity**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ Hearing inquiry ❍ Snoring/tonsil size[1] ❍ Teeth[1]	❍ *Blood pressure* ❍ **Eyes (red reflex)/Visual acuity**[1] ❍ **Corneal light reflex/Cover-uncover test & inquiry**[1] ❍ Hearing inquiry ❍ Snoring/tonsil size[1] ❍ Teeth[1]
PROBLEMS AND PLANS			
INVESTIGATIONS/IMMUNIZATION **Discuss immunization pain reduction strategies**[3]	❍ **Record Vaccines on Guide V**	❍ **Record Vaccines on Guide V**	❍ **Record Vaccines on Guide V**
Signature			

Strength of recommendation based on literature review using the classification of the Canadian Task Force on Preventive Health Care: **Good (bold type)**; *Fair (italic type)*; Consensus (plain type).
[1]see Rourke Baby Record Resources 1: General [2]see Rourke Baby Record Resources 2: Healthy Child Development [3]see Rourke Baby Record Resources 3: Immunization/Infectious Diseases

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www.rourkebabyrecord.ca

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THE COLLEGE OF FAMILY PHYSICIANS OF CANADA / LE COLLÈGE DES MÉDECINS DE FAMILLE DU CANADA

Childhood Immunization Record as per NACI Recommendations
(as of July 29, 2011)
For additional information, refer to the National Advisory Committee on Immunization website: www.phac-aspc.gc.ca/naci-ccni/

Rourke Baby Record: Evidence-Based Infant/Child Health Maintenance GUIDE V: Immunization

NAME: _____ Birth Day (d/m/yr): _____ M [ ] F [ ]

Provincial guidelines vary and are available online: www.phac-aspc.gc.ca/im/ptimprog-progimpt/table-1_e.html

Date given	NACI recommendations	Injection site	Lot number	Expiry date	Initials	Comments
Rotavirus[3]	2 or 3 doses dose #1 (6 wks - 14 wks/6 days)					
# doses varies with manufacturer	dose #2					
	± dose #3 (by 8 mos/0 days)					
DTaP/IPV/[3]	4 doses (2, 4, 6, 18 months)					
Hib[3]	dose #1 (2 months)					
	dose #2 (4 months)					
	dose #3 (6 months)					
	dose #4 (18 months)					
Pneu-Conj[3]	4 doses (2, 4, 6, 12-15 months) dose #1 (2 months)					
	dose #2 (4 months)					
	dose #3 (6 months)					
	dose #4 (12-15 months)					
Men-Conjugate[3]	Men-C-C:2-3 doses under 12 mos (2-11 mos) AND booster dose between 12-24 months OR Men-C-C: 1 dose at 12 months					
	Men-C-C or Men-C-ACWY:1 dose at 12 years or during adolescence					
Hepatitis B[3]	3 doses in infancy OR 2-3 doses preteen/teen dose #1					
	dose #2					
	± dose #3					
MMR or MMRV[3]	2 doses (12 mths, 18 mths OR 4 yrs) dose #1 (12 months)					
	dose #2 (18 months OR 4 years)					
Varicella[3]	2 doses (12 mo-12 yrs - MMRV or univalent) OR 2 doses (>13 years- univalent) dose #1					
	dose #2					
DTaP/IPV[3]	1 dose (4-6 years)					
HPV[3]	In females 9 - 26 years, 3 doses at 0, 2, and 6 months. dose #1					
	dose #2					
	dose #3					
dTap[3]	1 dose (14-16 years)					
Influenza[3]	1 dose annually (6-23 months and high risk > 2 years) First year only for < 9 years - give 2 doses one month apart					
Other						

Disclaimer: Given the constantly evolving nature of evidence and changing recommendations, the Rourke Baby Record is meant to be used as a guide only.
[3]see Rourke Baby Record Resources 3: Immunization/Infectious Diseases
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GROWTH

- **Important:** Corrected age should be used at least until 24 to 36 months of age for premature infants born at <37 wks gestation.
- *Measuring growth* - The growth of all term infants, both breastfed and non breastfed, and preschoolers should be evaluated using Canadian growth charts from the 2006 World Health Organization Child Growth Standards (birth to 5 years) with measurement of recumbent length (birth to 2-3 years) or standing height (≥ 2 years), weight, and head circumference (birth to 2 years). www.cps.ca/english/publications/CPS10-01.htm www.dietitians.ca/growthcharts

NUTRITION - www.hc-sc.gc.ca/fn-an/pubs/infant-nourrisson/nut_infant_nourrisson_term_e.html - www.osnpph.on.ca/resources/index.php

- Colic - www.cps.ca/english/statements/N/InfantileColic.htm

- **Breastfeeding: Exclusive breastfeeding** is recommended for the first six months of life for healthy term infants. Breast milk is the optimal food for infants, and breastfeeding (with complementary foods) may continue for up to two years and beyond unless contraindicated. Breastfeeding reduces gastrointestinal and respiratory infections. Maternal support (both antepartum and postpartum) increases breastfeeding and prolongs its duration. Early and frequent mother-infant contact, rooming in, and banning handouts of free infant formula increase breastfeeding rates.
  - Breastfeeding - www.cps.ca/english/statements/N/BreastfeedingMar05.htm
  - Ankyloglossia and breastfeeding - www.cps.ca/english/statements/CP/cp11-01.htm
  - Maternal medications when breastfeeding - toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT
  - Motherisk - www.motherisk.org
  - Weaning - www.cps.ca/english/statements/CP/cp04-01.htm
- Routine **Vitamin D supplementation** of 400 IU/day (800 IU/day in northern communities) is recommended for all breastfed infants until the diet provides a sufficient source of Vitamin D (~ 1 year of age). Formula may only supply a portion of the recommended daily vitamin D intake if less than 1000 mL (33 oz) is consumed daily. Breastfeeding mothers should continue to take Vitamin D supplements for the duration of breastfeeding. www.cps.ca/english/statements/ii/fnim07-01.htm
- *Infant formula* - formula composition and algorithm re use www.albertahealthservices.ca/3505.asp
- Milk consumption range is consensus only & is provided as an approximate guide.
- Soy-based formula is not recommended for routine use in term infants as an equivalent alternative to cow's milk formula, or for cow milk protein allergy, and is contraindicated for preterm infants. www.cps.ca/english/statements/N/InfantSoyConcern.htm
- *Transition to lower fat diet*: A gradual transition from the high-fat infant diet to a lower-fat diet begins after age 2 years as per Canada's Food Guide.
- Encourage a healthy diet as per Canada's Food Guide
  - www.hc-sc.gc.ca/fn-an/food-guide-aliment/index_e.html
- Vegetarian diets - www.cps.ca/english/statements/CP/cp10-02.htm
- Mercury in fish - www.hc-sc.gc.ca/fn-an/securit/chem-chim/environ/mercur/index-eng.php

INJURY PREVENTION: In Canada, unintentional injuries are the leading cause of death in children and youth. Most of these preventable injuries are caused by motor vehicle collisions, drowning, choking, burns, poisoning, and falls. For more safety information: www.safekidscanada.ca www.cps.ca/english/publications/InjuryPrevention.htm

- **Transportation in motor vehicles**: www.cps.ca/english/statements/IP/IP08-01.htm
  Children < 13 years should sit in the rear seat. Keep children away from all airbags.
  Install and follow size recommendations as per specific car seat model and keep child in each stage as long as possible.
  Use rear-facing infant seat until at least 1 year of age AND 10 kg (22 lb).
  Use forward-facing child seat after 1 year of age AND 10 - 22 kg (22 - 48 lb) and up to 122 cm (48").
  Maximum ht/wt may vary with car seat model.
  Use booster seat from at least 18 - 36 kg (40 - 80 lb) and up to 145 cm (4'9").
  Use lap and shoulder belt in the rear seat for children over 8 yrs who are at least 36 kg (80 lb) and 145 cm (4'9") and fit vehicle restraint system.
- **Bicycle**: wear **bike helmets**. Replace if heavy impact or sign of damage.
- Drowning: www.cps.ca/english/statements/IP/IP03-01.htm
  - *Bath safety*: Never leave a young child alone in the bath. Do not use infant bath rings or bath seats.
  - *Water safety*: Recommend adult supervision, training for adults, 4-sided pool fencing, lifejackets, swimming lessons, and boating safety to decrease the risk of drowning.
- Choking: Avoid hard, small and round, smooth and sticky solid foods until age 3 years. Use safe toys, follow minimum age recommendations, and remove loose parts and broken toys.
- *Burns*: Install smoke detectors in the home on every level.
  Keep hot water at a temperature < 49°C.
- **Poisons:** Keep medicines and cleaners locked up and out of child's reach. Have Poison Control Centre number handy. *Use of ipecac is contraindicated in children*.
- Falls: Assess home for hazards- never leave baby alone on change table or other high surface; use window guards and stair gates. Baby walkers are banned in Canada and should never be used. Advise against trampoline use at home. www.cps.ca/english/statements/IP/IP07-01.htm
- **Safe sleeping environment:** www.cps.ca/english/statements/CP/cp04-02.htm
  - **Sleep position and SIDS/Positional plagiocephaly:** Healthy infants should be positioned on their backs for sleep. Their heads should be placed in different positions on alternate days. Sleep positioners should not be used. While awake, infants should have supervised tummy time. Counsel parents on the dangers of other contributory causes of SIDS such as overheating, maternal smoking or second-hand smoke.
  - **Bed sharing:** Advise against bed sharing which is associated with an increased risk for SIDS.
  - **Crib safety/Room sharing**: Encourage putting infant in a crib, cradle or bassinette, that meets current Canadian regulations (www.hc-sc.gc.ca/ahc-asc/media/nr-cp/_2010/2010_212-eng.php) in parents' room for the first 6 months of life. Room sharing is protective against SIDS.
- **Firearm safety/removal:** There is evidence-based association between a firearm in the home and increased risk of unintentional firearm injury, suicide, or homicide. www.cps.ca/english/statements/AM/AH05-02.htm

INVESTIGATIONS/SCREENING

Anemia screening: All infants from high-risk groups for iron deficiency anemia require screening between 6 and 12 months of age, e.g. Lower SES; Asian; First Nations children; low-birth-weight and premature infants, and infants fed whole cow's milk during their first year of life.
Hemoglobinopathy screening: Screen all neonates from high-risk groups: Asian, African & Mediterranean.
Universal newborn hearing screening (UNHS) effectively identifies infants with congenital hearing loss & allows for early intervention & improved outcomes. www.cps.ca/english/statements/CP/cp11-02.htm

OTHER

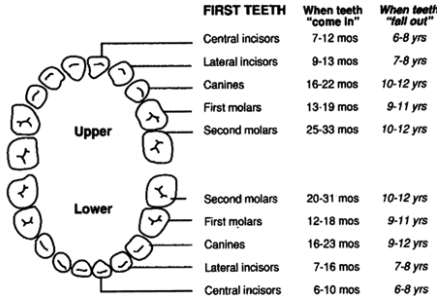
- **Second-hand smoke exposure**: contributes to childhood illnesses such as URTI, middle ear effusion, persistent cough, pneumonia, asthma, and SIDS.
- Advise parents against using **OTC cough/cold medications**.
  - http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/_2008/2008_184-eng.php
- *Complementary and alternative medicine (CAM)*: Questions should be routinely asked on the use of homeopathy and other complementary and alternative medicine therapy or products, especially for children with chronic conditions.
  - www.cps.ca/english/statements/DT/DT05-01.htm
  - Homeopathy - www.cps.ca/english/statements/CP/cp05-01.htm
- *Pacifier use* may decrease risk of SIDS and should not be discouraged in the 1st year of life after breastfeeding is well established, but should be restricted in children with chronic/recurrent otitis media. - www.cps.ca/english/statements/CP/cp03-01.htm
- Fever advice/thermometers: Fever ≥ 38°C in an infant < 3 months needs urgent evaluation. Ibuprofen and acetaminophen are both effective antipyretics. Acetaminophen remains the first choice for antipyresis under 6 months of age; thereafter ibuprofen or acetaminophen may be used. Alternating acetaminophen with ibuprofen for fever control is not recommended in primary care settings as this may encourage fever phobia, and the potential risks of medication error outweigh measurable clinical benefit. - www.cps.ca/english/statements/CP/cp00-01.htm
- Footwear: Shoes are for protection, not correction. Walking barefoot develops good toe gripping and muscular strength - http://www.cps.ca/english/statements/CP/FootwearChildren.htm
- Healthy Active Living: Encourage increased physical activity and decreased sedentary pastimes with parents as role models.
  - www.cps.ca/english/statements/HAL/HAL02-01.htm
  - Media use - www.cps.ca/english/statements/CP/pp03-01.htm
- Sun exposure/sunscreens/insect repellents: Minimize sun exposure. Wear protective clothing, hats, properly applied sunscreen with SPF ≥ 30 for those > 6 months of age. No DEET in < 6 months; 6-24 months 10% DEET apply max once daily; 2 - 12 yrs 10% DEET apply max TID.
- *Pesticides*: Avoid pesticide exposure. Encourage pesticide-free foods.
  - www.ocfp.on.ca/docs/public-policy-documents/pesticides-literature-review.pdf
- *Lead Screening* (www.cfp.ca/cgi/reprint/56/6/531) is recommended for children who:
  - in the last 6 months lived in a house or apartment built before 1978;
  - live in a home with recent or ongoing renovations or peeling or chipped paint;
  - have a sibling, housemate, or playmate with a prior history of lead poisoning;
  - live near point sources of lead contamination;
  - have household members with lead-related occupations or hobbies;
  - are refugees aged 6 mo - 6 yrs, within 3 months of arrival and again in 3-6 months.

Even for blood levels less than 10ug/dL, evidence suggests an association, and perhaps partial causal relationship with lower cognitive function in children. www.pulsus.com/journals/abstract.jsp?sCurrPg=abstract&jnlKy=5&atlKy=3087&isuKy=444&isArt=t&fromfold=

- Websites about environmental issues:
  - CPCHE - www.healthyenvironmentforkids.ca/
  - AAP - www.aap.org/healthtopics/environmentalhealth.cfm

Dental Care:

- **Dental Cleaning:** As excessive swallowing of toothpaste by young children may result in dental fluorosis, children 3-6 years of age should be supervised during brushing and only use a small amount (e.g. pea-sized portion) of fluoridated toothpaste twice daily. Children under 3 years of age should have their teeth and gums brushed twice daily by an adult using either water (if low risk for tooth decay) or a rice grain sized portion of fluoridated toothpaste (if at carries risk).



FIRST TEETH	When teeth "come in"	When teeth "fall out"
Central incisors	7-12 mos	6-8 yrs
Lateral incisors	9-13 mos	7-8 yrs
Canines	16-22 mos	10-12 yrs
First molars	13-19 mos	9-11 yrs
Second molars	25-33 mos	10-12 yrs
Second molars	20-31 mos	10-12 yrs
First molars	12-18 mos	9-11 yrs
Canines	16-23 mos	9-12 yrs
Lateral incisors	7-16 mos	7-8 yrs
Central incisors	6-10 mos	6-8 yrs

- Fluoride supplements are not recommended before eruption of the first permanent tooth (~6 - 8 years) unless the child is at high risk for dental caries. www.cda-adc.ca/_files/position_statements/Fluorides-English-2010-06-08.pdf
- *To prevent early childhood caries*: avoid sweetened juices/liquids and constant sipping of milk or natural juices in both bottle and cup.

PHYSICAL EXAMINATION

- Vision inquiry/screening: www.cps.ca/english/statements/cp/cp09-02.htm
  - Check **Red Reflex** for serious ocular diseases such as retinoblastoma and cataracts.
  - **Corneal light reflex/cover-uncover test & inquiry for strabismus**: With the child focusing on a light source, the light reflex on the cornea should be symmetrical. Each eye is then covered in turn, for 2 – 3 seconds, and then quickly uncovered. The test is abnormal if the uncovered eye "wanders" OR if the covered eye moves when uncovered.
- *Hearing inquiry/screening* – Any parental concerns about hearing acuity or language delay should prompt a rapid referral for hearing assessment. Formal audiology testing should be performed in all high-risk infants, including those with normal UNHS. Older children should be screened if clinically indicated.
- Fontanelles – The posterior fontanelle is usually closed by 2 months and the anterior by 18 months.
- Muscle tone – Physical assessment for spasticity, rigidity, and hypotonia should be performed.
- Hips – There is insufficient evidence to recommend routine screening for developmental dysplasia of the hips, but examination of the hips should be included until at least one year, or until the child can walk. http://pediatrics.aappublications.org/cgi/reprint/117/3/898
- Snoring in the presence of sleep-disordered breathing warrants assessment re obstructive sleep apnea. http://aappolicy.aappublications.org/cgi/reprint/pediatrics;109/4/704.pdf

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DEVELOPMENT

Maneuvers are based on the Nipissing District Development Screen™ (www.ndds.ca) and other developmental literature. They are not a developmental screen, but rather an aid to developmental surveillance. They are set after the time of normal milestone acquisition. Thus, absence of any one or more items is considered a high-risk marker and indicates consideration for further developmental assessment, as does parental or caregiver concern about development at any stage.

- "Best Start" website contains resources for maternal, newborn, and early child development - www.beststart.org/
- OCFP Healthy Child Development: Improving the Odds publication is a toolkit for primary healthcare providers - www.ocfp.on.ca/docs/research-projects/improving-the-odds-healthy-child-development-manual-2010-6th-edition.pdf
  www.cdc.gov/ncbddd/child/screen_provider.htm
- Centre of Excellence for Early Childhood Development: www.child-encyclopedia.com

BEHAVIOUR

Crying: Excessive crying may be caused by behavioral or physical factors or be the upper limit of the normal spectrum. Evaluation of these etiological factors and of the burden for parents is essential and raises awareness of the potential for the shaken baby syndrome.
Shaken baby syndrome: www.cps.ca/english/statements/PP/cps01-01.htm www.dontshake.org
Night waking: occurs in 20% of infants and toddlers who do not require night feeding. Counselling around positive bedtime routines (including training the child to fall asleep alone), removing nighttime positive reinforcers, keeping morning awakening time consistent, and rewarding good sleep behaviour has been shown to reduce the prevalence of night waking, especially when this counselling begins in the first 3 weeks of life.

- www.mja.com.au/public/issues/182_05_070305/sym10800_fm.html

Swaddling: Proper swaddling of the infant for the first 6 months of life may promote longer sleep periods but could be associated with adverse events (hyperthermia, SIDS, or development of hip dysplasia) if misapplied. A swaddled infant must always be placed supine with free movement of hips and legs, and the head uncovered.

- http://pediatrics.aappublications.org/cgi/reprint/120/4/e1097

PARENTING/DISCIPLINE

Inform parents that warm, responsive, flexible & consistent discipline techniques are assoc with positive child outcomes. Over reactive, inconsistent, cold & coercive techniques are assoc with negative child outcomes.

- www.cps.ca/english/statements/CP/pp04-01.htm
- www.ocfp.on.ca/docs/research-projects/improving-the-odds-healthy-child-development-manual-2010-6th-edition.pdf (section 3)

Refer parents of children at risk of, or showing signs of, behavioral or conduct problems to structured parenting programs which have been shown to increase positive parenting, improve child compliance, and reduce general behavior problems. Access community resources to determine the most appropriate and available research-structured programs.
(eg. The Incredible Years, Right from the Start, COPE program).
http://www.child-encyclopedia.com/en-ca/parenting-skills/how-important-is-it.html

LITERACY

Encourage parents to read to their children within the first few months of life and to limit TV, video and computer games to provide more opportunities for reading.

- www.cps.ca/english/statements/CP/pp06-01.htm
- www.ncbi.nlm.nih.gov/pubmed/10742349?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=28
- Arch Dis Child; 2008;93:554-7 http://adc.bmj.com/content/93/7/554.long

PARENTAL/FAMILY ISSUES - HIGH RISK INFANTS/CHILDREN

- Maternal depression - Physicians should have a high awareness of maternal depression, which is a risk factor for the socio-emotional and cognitive development of children. Although less studied, paternal factors may compound the maternal-infant issues.
  - www.cps.ca/english/statements/PP/pp04-03.htm
- Fetal alcohol spectrum disorder (FASD) - www.cps.ca/english/statements/II/ii02-01.htm
- Foster care - Children entering foster care are a high risk population requiring special needs for health supervision. www.cps.ca/english/statements/cp/cp08-01.htm
- **Assess home visit need**: There is good evidence for **home visiting by nurses** during the perinatal period through infancy for first-time mothers of low socioeconomic status, single parents or teenaged parents to prevent physical abuse and/or neglect.
  - www.cmaj.ca/cgi/content/full/163/11/1451
- *Risk factors for physical abuse*: low SES; young maternal age (<19 years); single parent family; parental experiences of own physical abuse in childhood; spousal violence; lack of social support; unplanned pregnancy or negative parental attitude towards pregnancy.
- *Risk factors for sexual abuse*: living in a family without a natural parent; growing up in a family with poor marital relations between parents; presence of a stepfather; poor child-parent relationships; unhappy family life.

NONPARENTAL CHILD CARE

Inquire about current child care arrangements. High quality child care is associated with improved paediatric outcomes in all children.
Factors enhancing quality child care include: practitioner general education and specific training; group size and child/staff ratio; licensing and registration/accreditation; infection control and injury prevention; and emergency procedures.

- www.cps.ca/english/statements/CP/cp08-02.htm
- www.cps.ca/english/statements/CP/cp2009-01.htm
- Well Beings: www.caringforkids.cps.ca/wellbeings/index.htm

AUTISM SPECTRUM DISORDER

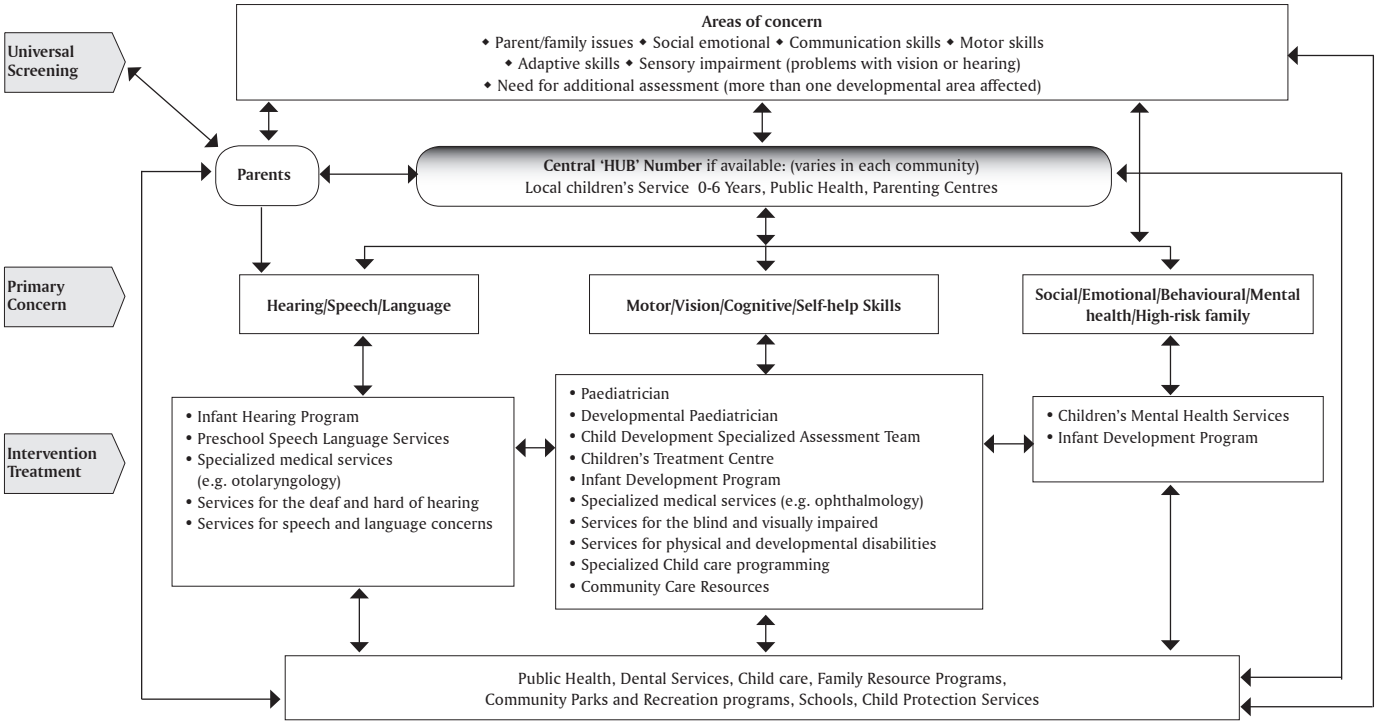
Specific screening for ASD at 18 - 24 months using the M-CHAT should be performed on all children with any of the following: failed items on the social/emotional/communication skills inquiry, sibling with autism, or developmental concern by parent, caregiver, or physician.
If the M-CHAT is abnormal, use the M-CHAT Follow-up Interview to reduce the false positive rate and avoid unnecessary referrals and parental concern. The M-CHAT tool and follow-up interview are found at: www.mchatscreen.com

TOILET LEARNING

The process of toilet learning has changed significantly over the years and within different cultures. In Western culture, a child-centred approach, where the timing and methodology of toilet learning is individualized as much as possible, is recommended.

- www.cps.ca/english/statements/CP/cp00-02.htm
- www.pulsus.com/journals/abstract.jsp?jnlKy=5&atlKy=7859&isuKy=769&isArt=t&HCtype=Consumer

Early Child Development and Parenting Resource System - National



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ROUTINE IMMUNIZATION

- **National Advisory Committee on Immunization (NACI) recommended immunization schedules for infants, children and youth can be found at the following website:** www.phac-aspc.gc.ca/naci-ccni/
- **Provincial/territorial immunization schedules** may differ based on funding differences. For provincial/territorial immunization schedules, see Canadian Nursing Coalition on Immunization chart on the website of the Public Health Agency of Canada: www.phac-aspc.gc.ca/im/ptimprog-progimpt/table-1_e.html
- Additional information for parents on vaccinations can be accessed through:
  CPS Parent website - www.caringforkids.cps.ca/immunization/index.htm
  Responding to Parental Refusals of Immunization of Children - pediatrics.aappublications.org/cgi/reprint/115/5/1428
  Dispelling myths held by parents about the influenza vaccine - www.cps.ca/english/statements/ID/DispellingMyths.pdf
- Information for physicians on vaccine safety can be accessed through:
  Presentation on vaccinations - www.cps.ca/english/HealthCentres/FirstShotsBestShot.htm?utm_source=Email-Marketing&utm_medium=email&utm_campaign=First-Shots-Best-Shot
  Autism spectrum disorder: No causal relationship with vaccines - www.cps.ca/english/statements/id/pidnote_jun07.htm
  Vaccine literacy - www.cps.ca/english/statements/ID/VaccineLiteracy.pdf
- AAP recommendation - http://aapredbook.aappublications.org/resources/2009_0-6yrs_Schedule_FINAL.pdf
- **Immunization pain reduction strategies:** During vaccination, pain reduction strategies with good evidence include breastfeeding or use of sweet-tasting solutions, use of the least painful vaccine brand, and consideration of topical anaesthetics.
  www.cmaj.ca/cgi/reprint/182/18/E843?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=Immunization&searchid=1&FIRSTINDEX=0&volume=182&issue=18&resourcetype=HWCIT

VACCINE NOTES (Adapted from NACI website: July 29, 2011)

- **Diphtheria, Tetanus, acellular Pertussis and inactivated Polio virus vaccine (DTaP-IPV)**: DTaP-IPV vaccine is the preferred vaccine for all doses in the vaccination series, including completion of the series in children < 7 years who have received ≥ 1 dose of DPT (whole cell) vaccine (e.g., recent immigrants).
- **Haemophilus influenzae type b conjugate vaccine (Hib)**: Hib schedule shown is for the Haemophilus b capsular polysaccharide – PRP conjugated to tetanus toxoid (Act-HIBTM) or the Haemophilus b oligosaccharide conjugate - HbOC (HibTITERTM) vaccines. This vaccine may be combined with DTaP in a single injection.
- **Measles, Mumps and Rubella vaccine (MMR)**: A second dose of MMR is recommended, at least 1 month after the first dose for the purpose of better measles protection. For convenience, options include giving it with the next scheduled vaccination at 18 months of age or at school entry (4-6 years) (depending on the provincial/territorial policy), or at any intervening age that is practical. The need for a second dose of mumps and rubella vaccine is not established but may benefit (given for convenience as MMR). The second dose of MMR should be given at the same visit as DTaP-IPV (± Hib) to ensure high uptake rates. MMR and varicella vaccines should be administered concurrently (at different sites if the MMRV [combined MMR/varicella] is not available) or separated by at least 4 weeks.
- **Varicella vaccine**: Children aged 12 months to 12 years who have not had varicella should receive 2 doses of varicella vaccine (univalent varicella or MMRV). Unvaccinated individuals ≥ 13 years who have not had varicella should receive two doses at least 28 days apart (univalent varicella only). Consult NACI guidelines for recommended options for catch-up varicella vaccination. Varicella and MMR vaccines should be administered concurrently (at different sites if the MMRV [combined MMR/varicella] vaccine is not available) or separated by at least 4 weeks.
- **Hepatitis B vaccine (Hep B)**: Hepatitis B vaccine can be routinely given to infants or preadolescents, depending on the provincial/territorial policy. The first dose can be given at 2 months of age to fit more conveniently with other routine infant immunization visits. The second dose should be administered at least 1 month after the first dose, and the third at least 2 months after the second dose, but again may fit more conveniently into the 4- and 6-month immunization visits. A two-dose schedule for adolescents is an option. For infants born to chronic carrier mothers, the first dose should be given at birth (with Hepatitis B immune globulin). (See also SELECTED INFECTIOUS DISEASES RECOMMENDATIONS below.)
- **Pneumococcal conjugate vaccine 13-valent (Pneu-Conj)**: Recommended schedule, number of doses and subsequent use of 23 valent polysaccharide pneumococcal vaccine depend on the age of the child, previous administration of -7 or-10 valent vaccine, if at high risk for pneumococcal disease, and when vaccination is begun. Consult NACI guidelines for maximizing coverage up to 59 months of age.
- **Meningococcal conjugate vaccine (Men-C):** www.cps.ca/english/statements/ID/ID09-02.htm - Monovalent vaccine to Type C (Men-C-C) is indicated for all ages, and quadravalent to Types A/C/W/Y (Men-C-ACWY) for age 2 yrs and over. Recommended vaccine, schedule and number of doses of meningococcal vaccine depend on the age of the child and vary between provinces/territories.
  Possible schedules include:
  - Men-C-C: 2 - 3 doses under 12 mos of age AND booster dose between 12 - 24 mos age.
    OR
  - Men-C-C: 1 dose at 12 mos of age.

  Men-C-C or Men-C-ACWY booster dose should also be given at 12 yrs of age or during adolescence.
- **Diphtheria, Tetanus, acellular Pertussis vaccine - adult/adolescent formulation (dTap)**: a combined adsorbed "adult type" preparation for use in people ≥ 7 years of age, contains less diphtheria toxoid and pertussis antigens than preparations given to younger children and is less likely to cause reactions in older people. This vaccine should be used in individuals > 7 years receiving their primary series of vaccines.
- **Influenza vaccine**: Recommended for all children between 6 and 23 months of age, and for older high-risk children. Previously unvaccinated children up to 9 years of age require 2 doses with an interval of at least 4 weeks. The second dose is not required if the child has received one or more doses of influenza vaccine during the previous immunization season.
- **Rotavirus vaccine**: Universal rotavirus vaccine is recommended by NACI and CPS. Two oral vaccines are currently authorized for use in Canada: Rotarix (2 doses) and RotaTeq (3 doses). Dose #1 is given between 6 wks and 14 wks/6 days with a minimum interval of 4 weeks between doses. Maximum age for the last dose is 8 mos/0 days. www.cps.ca/english/statements/ID/ID10-01.htm
  - www.phac-aspc.gc.ca/publicat/ccdr-rmtc/10vol36/acs-4/index-eng.php - www.cps.ca/English/statements/ID/ID10-01.htm

SELECTED INFECTIOUS DISEASES RECOMMENDATIONS

See CPS position statements of the Infectious Diseases and Immunization Committee: www.cps.ca/english/publications/InfectiousDiseases.htm

- **Hepatitis B immune globulin and immunization:**
  Infants with HBsAg-positive parents or siblings require Hepatitis B vaccine at birth, at 1 month, and 6 months of age.
  Infants of HBsAg-positive mothers also require Hepatitis B immune globulin at birth and follow-up immune status at 9 – 12 months for HBV antibodies and HBsAg.
  Hepatitis B vaccine should also be given to all infants from high-risk groups, such as:
  - infants where at least one parent has emigrated from a country where Hepatitis B is endemic;
  - infants of mothers positive for Hepatitis C virus;
  - infants of substance-abusing mothers.
- **Human Immunodeficiency Virus type 1 (HIV-1) maternal infections:**
  Breastfeeding is contraindicated for an HIV-1 infected mother even if she is receiving antiretroviral therapy.
- **Hepatitis A or A/B combined (when Hepatitis B vaccine has not been previously given):**
  These vaccines should be considered when traveling to countries where Hepatitis A or B are endemic.
- **Tuberculosis - TB skin testing:**
  TB skin testing should be done if the infant is living with anyone being investigated or treated for TB. TB skin testing should also be considered in high-risk groups, including Aboriginal people, immigrants and long-term travellers from areas with a high prevalence of TB.

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