Stronger Together: A Family-Centered Approach to Neonatal Skin Assessment

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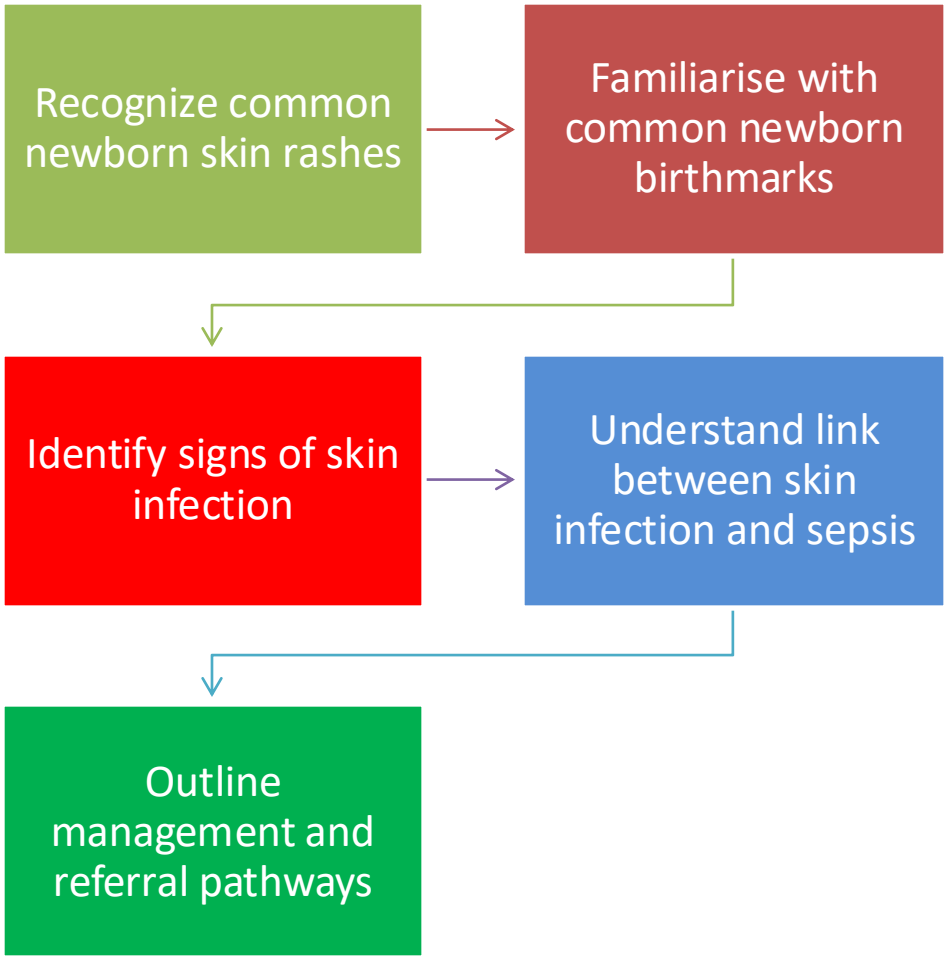
Learning Objectives



Normal Newborn Rashes

- Milia

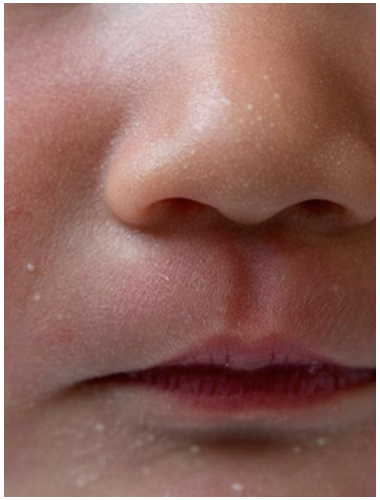
Milia

Tiny pearly-white papules typically on the face and scalp

Inclusion cyst containing keratinized skin

Can also be present on palate (Epstein's pearls), gum (Bohn's nodule) and penis

Harmless & spontaneously resolve in weeks/months



Normal Newborn Rashes

- Milia
- Sebaceous hyperplasia

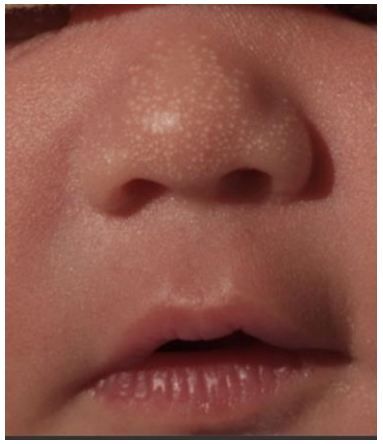
Sebaceous Hyperplasia

Smooth, yellowish papules often found on the nose & cheek, no surrounding erythema

Seen in about 50% of healthy term newborns

Hypertrophy of sebaceous glands secondary to hormonal (androgen) stimulation

Involutes in the first few weeks of life



Normal Newborn Rashes

- Milia
- Sebaceous hyperplasia
- Erythema toxicum

Erythema Toxicum Neonatorum

- Classic eruption of pustules with surrounding erythema
- Seen in about 50% of healthy term newborns
- Can appear anywhere on the body except the palms and soles
- Spontaneously resolve in the second week of life

Normal Newborn Rashes

- Milia
- Sebaceous hyperplasia
- Erythema toxicum
- Transient Pustular Melanosis

Transient Pustular Melanosis

Uncommon pustular lesion that is often present from birth

Mainly in babies of African descent, typically around forehead, trunk & limbs

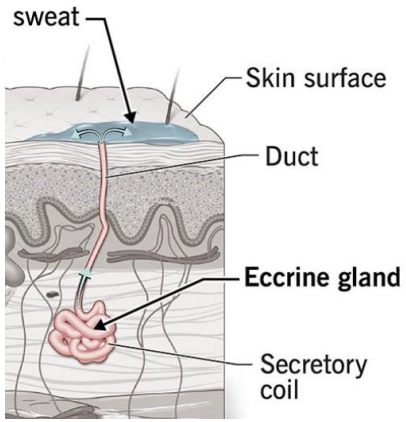
3 phases/lesions: vesiculopustular → scale around pustule → hyperpigmented macule

Hyperpigmented macule can take weeks/months before resolving

Normal Newborn Rashes

- Milia
- Sebaceous hyperplasia
- Erythema toxicum
- Transient Pustular Melanosis
- Milaria

Milaria



Obstruction of eccrine duct due to overheating or during fever

Milaria crystallina: crystal clear vesicles

Milaria rubra: erythematous papular or papulopustular lesions

Cooling & avoid warm environment

Normal Newborn Rashes

- Milia
- Sebaceous hyperplasia
- Erythema toxicum
- Transient Pustular Melanosis
- Milaria
- Neonatal & Infantile Acne

Neonatal Acne

Usually present in the first 2-3 weeks of life as an erythematous papules & pustules

Neonatal Cephalic Pustulosis; Pityrosporum folliculitis

? Inflammatory reaction to yeast (Malassezia) colonization of the skin

Avoid greasy moisturisers & role of topical antifungals

Infantile Acne

- Persistence of neonatal acne or later onset of true acne
- Seen around 2 – 3 months of age with papules, pustules as well as open/closed comedones
- Androgen-driven leading to increased sebaceous activity
- Dermatology referral

Neonatal Birthmarks

Salmon patch




Salmon patch

- Naevus Simplex
- Capillary malformations within the upper dermis
- Glabella, eyelids, nape of neck
- Fades with time

Neonatal Birthmarks

Salmon patch

Port-wine Stain

Port – Wine Stain

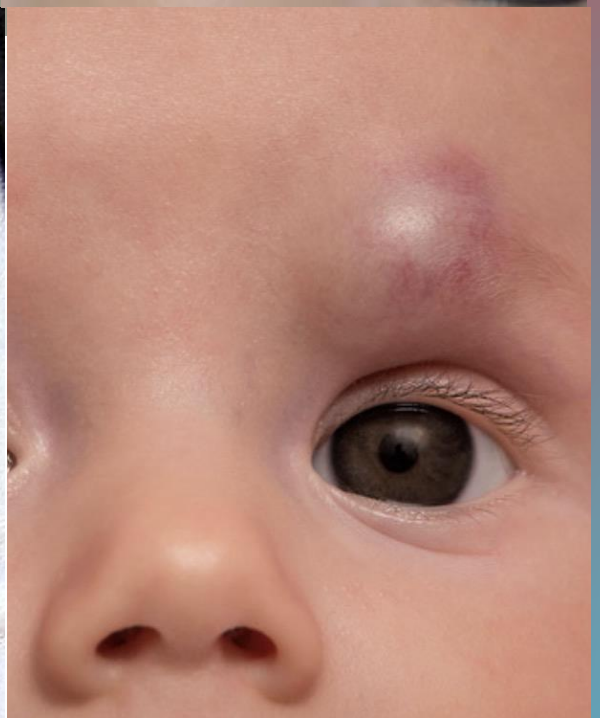
- Naevus Flammeus
- Dilated capillaries & increased ectasia in deep reticular dermis
- Large & segmental, most commonly on the face, rarely cross mid-line
- Does not regress

Neonatal Birthmarks

Salmon patch

Port-wine Stain

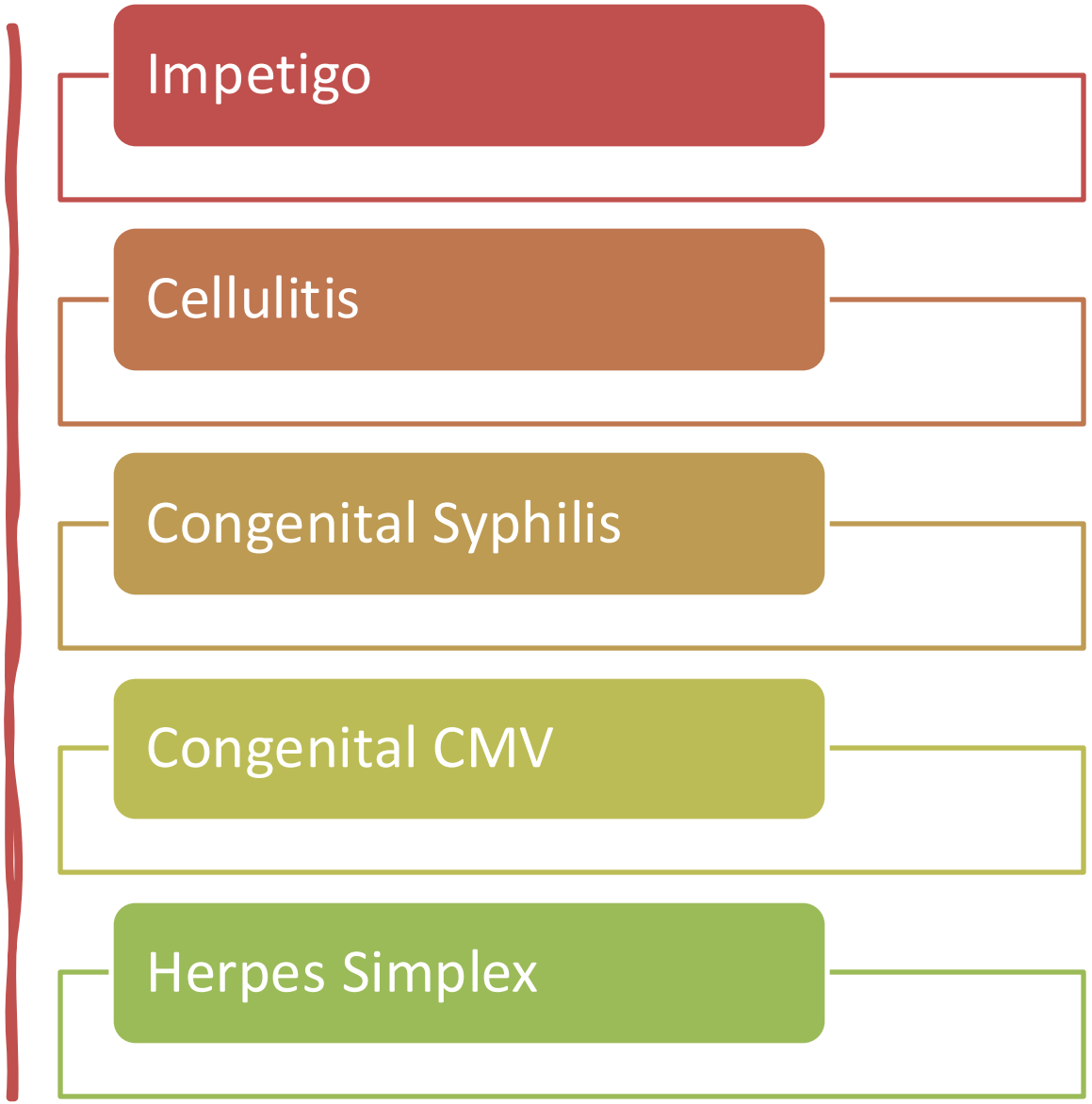
Haemangioma



Haemangioma

- Benign vascular proliferation
- Often appears after birth
- Bright red or blue-purple in colour
- Proliferate in the first 12-18 months
- 50% involute by 5 years

Skin Infections



Impetigo

Caused by S.Aureus or Strep pyogenes

Associated with skin trauma, poor hygiene, warm temperature & high humidity

Begins as an erythematous area >> superficial vesicles that rupture >> honey-colored crust

Topical mupirocin or fucidic acid for uncomplicated cases

Cellulitis

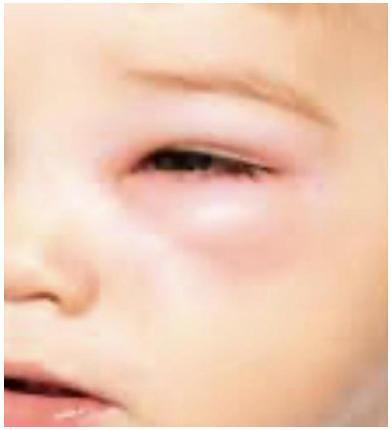
Acute infection of dermal & subcutaneous tissues

Entry from skin trauma: H. Influenzae, Group A Strep, S.aureus

Red, hot tender area +/- fever & lymphadenopathy

7 -10 day course of oral antibiotics

Intravenous for periorbital or orbital involvement



Congenital Syphilis

Prenatal transfer of Treponema Pallidum

Often asymptomatic at birth, clinical manifestation within the first 2 months

Erythematous macules/papules or maculopapular rash +/- desquamation

Anemia, jaundice, hepatosplenomegaly, lymphadenopathy

IV penicillin for 2 weeks

Congenital CMV

CMV affects about 1 in 200 newborn babies

Cutaneous presentation (vesicles/ulcers) are rare. Often have systemic involvement (anaemia, jaundice, thrombocytopenia, hepatosplenomegaly)

Widespread red-blue papules or nodules “Blueberry muffin baby” can occur with TORCH infections: Toxoplasma, rubella, CMV, HIV and HZV

Urine culture & PCR

Ganciclovir & long-term follow up

Neonatal HSV

1 in 3000 livebirths; 75% HSV-2: transferred through birth canal & sometimes from mouth & hands

Neonatal herpes often present in the first 4 weeks. Disseminated disease usually in the first week

Macules or papules that progress to vesicles: may rupture >> ulcer or crust. Scalp, buttocks/perianal or oral lesions

Associated fever, lethargy, poor feeding, respiratory distress, jaundice and seizures

Neonatal HSV

Diagnosis via tissue culture, Tzanck preparation (multinucleated giant cells), direct immunofluorescence and PCR

IV Acyclovir 14 -21 days

Localized cutaneous: 100% survival

CNS involvement: 50% vs 15-30% mortality

Disseminated: 80% vs 20-25% mortality. Cardiovascular compromise and coagulopathy

Sepsis

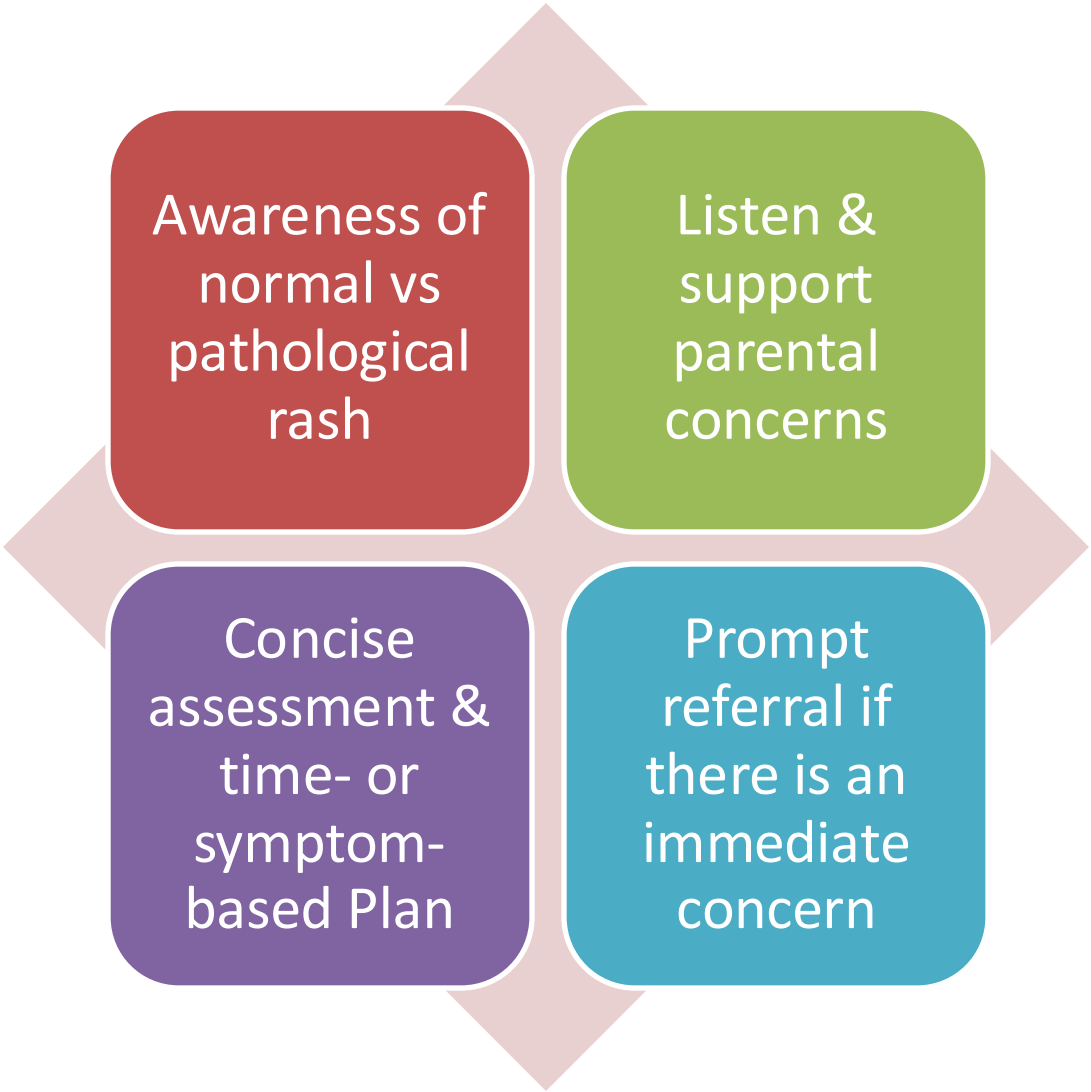
Skin break/infection as entry point into the bloodstream

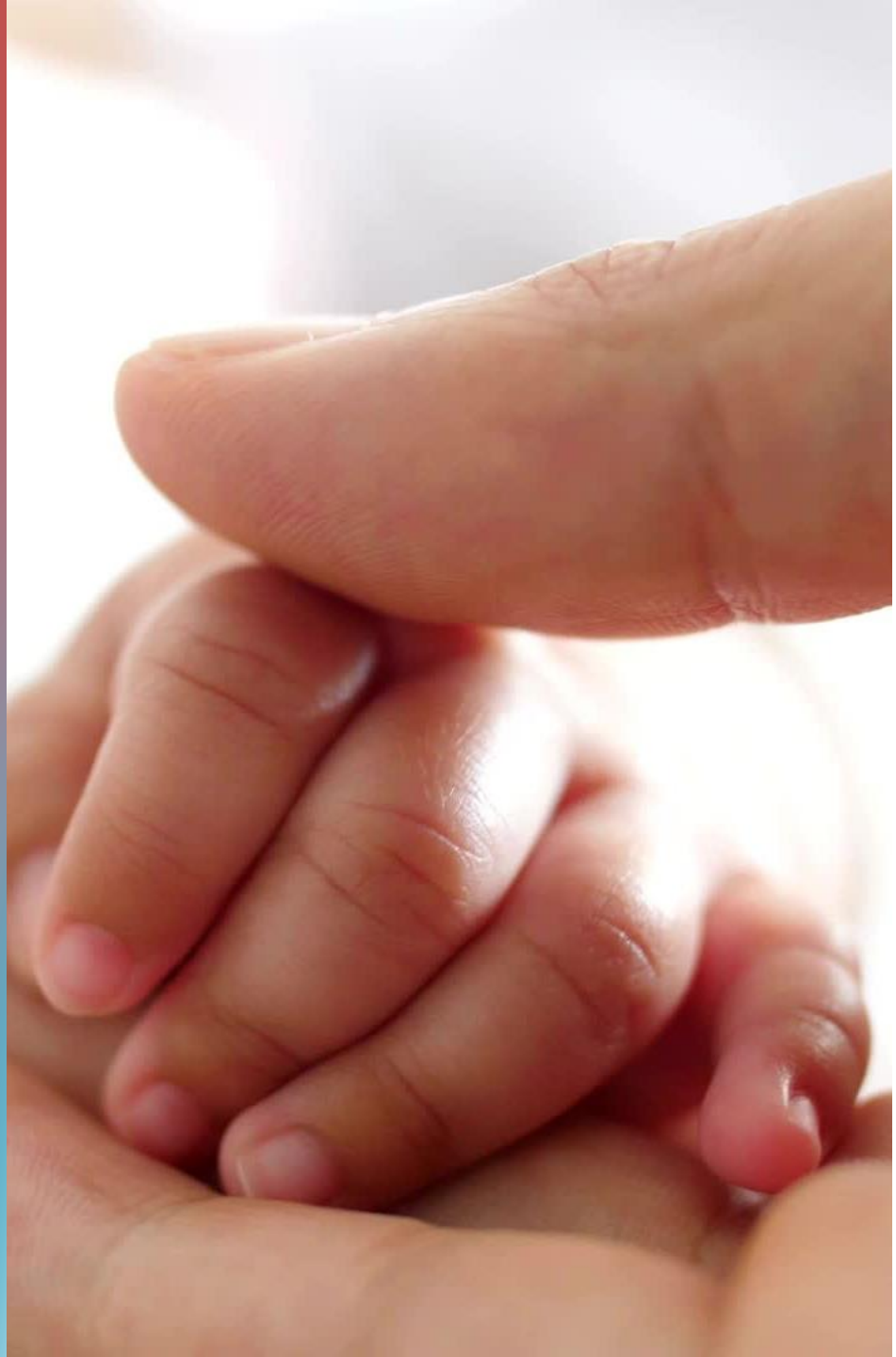
Presence of rash, vesicles or pustules +/- systemic symptoms

Sleepy/lethargy, reduced feeding, irritability, respiratory distress, cyanosis

Parental ‘gut feeling’ tells a lot

Family-Centered Approach





Key Takeaways

- Most newborn rashes are benign and self-limiting
- Other rashes indicate localized /widespread infection with risk of sepsis
- Prompt recognition and referral
- MCHNs play a crucial role in providing parental reassurance & support

Thank you

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TAKING THE FIRST FEW STEPS TOGETHER

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