

## 1. First Symptoms

### Regression (9-30 months)

Some difficulty feeding  
 Floppy and poor coordination of limbs, trunk and stereotypic hand movements,  
 Walking, if achieved at all becomes unsteady,  
 Head circumference if normal at birth slows.  
 Onset of epileptic seizures  
 Abnormal breathing patterns emerge; breath holding, hyperventilation, air swallowing  
 Eating, chewing and swallowing problems  
 Heart rhythm abnormalities  
 Social withdrawal, confused (not autism).  
 Partial or complete loss of spoken language  
 Gastro intestinal problems

**Note:** Detailed care plan needs to be put in place to address the health needs of the specific comorbidities!

Rett [Health Checklist](http://www.rettuk.org) available to download from [www.rettuk.org](http://www.rettuk.org) ("Resources for families")

**Ideally:** Support for the family can be accessed from the experienced and professional national Rett organizations. Contact [www.rettsyndrome.eu](http://www.rettsyndrome.eu). Access to knowledgeable and supportive GP.

## 2. Post Diagnosis

Need for involvement of multi-disciplinary team and co-ordination of care to manage symptoms with a care plan.  
 Referral to paediatric (child) or neurological consultant (adult)

**Ideally:** Care plan to involve physiotherapy, occupational therapy, SaLT, hydrotherapy and music therapy - can help a person with RTT lead a happy and full life.  
 Have an up to date [Health Passport](#) for use in hospital consultations or emergency

## 3. Surgery

Scoliosis  
 Removal of stones (gall bladder or kidney)  
 Other orthopaedic interventions, e.g. hip, feet  
 Gastro-intestinal surgery when symptoms become severe  
 Dental surgery often needed under anaesthetic

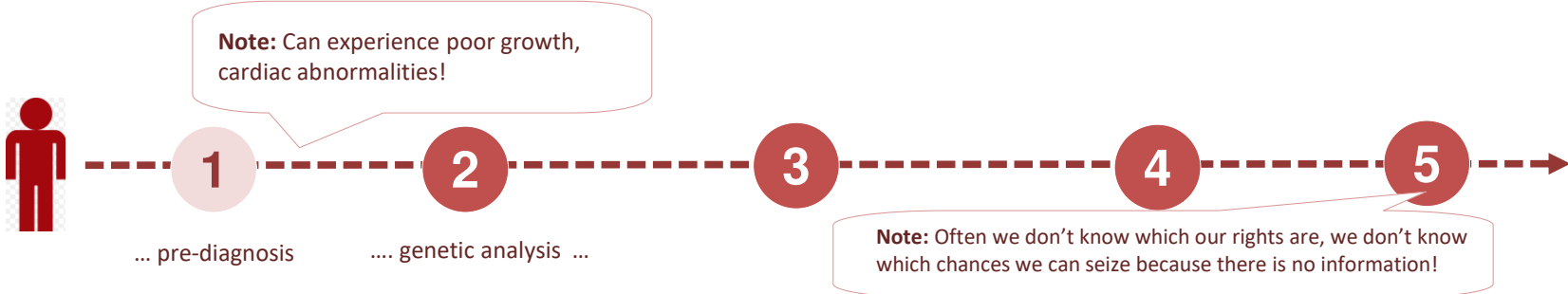
**Ideally:** Regular checks including X ray or scans where appropriate to check on progression of any identified problems.

## 4. Follow-Up...

Problems may exist when passing from paediatric to adult health care services  
 Illnesses may be wrongly attributed to "having Rett syndrome," when in reality the condition is found in a neurotypical person of the same age and should therefore be treated in the same way.

**Ideally:** Annual health check with GP; include long QT check, blood tests, full body examination  
 Any symptoms identified should be promptly referred for further investigation and escalated up the care pathway where necessary  
 Use [Rett Disorders Alliance UK Health Checklist](#) to guide parents/carers and professionals through the complex symptoms and problems of the disorder.  
 Download from Rett UK website, [www.rettuk.org](http://www.rettuk.org)





**1. First symptom**  
 Supravalvular aortic or pulmonary stenosis,  
 Low growth, characteristic Physiognomic aspect  
 Hypercalcemia  
 Feeding difficulties  
 Dental abnormalities  
 Hernias  
 Hyperacusis  
 Musculoskeletal problems  
 High urinary frequency - nocturnal enuresis

**2. Diagnosis & 1st Treatment**  
 Heart controls (surgery if necessary)  
 Neuro - psychomotricity  
 Logopaedia  
 Physiotherapy  
 Music therapy

**3. Clinical & Mental Check**  
 Clinical follow up (twice yr)  
 Table of growth specific for WS and guidelines about what to do at the different ages (cardiological controls, pressure, endocrinological controls, and many others)  
 Neurological FU (each yr) to evaluate the stage of mental development and the gap with the normal parameters

**4. Follow-Up**  
 Program of mental improvement, attending to a neuro-psychotherapy x2 week until 6/8 years;  
 Speech therapy programme (from 2 to 4/5);  
 Music therapy all lifelong;  
 Educational program to improve their autonomy.

**5. Social Care**  
 Educational support at home to develop autonomy  
 Psychological support to afford anxiety and to implement awareness about "self" /who they are, which are their limits, why they can't do what other people are usually doing etc.).  
 Occupational therapy  
 Recreation programs

**Ideally:**  
 A centre of competence that could bring together all the symptoms asking to a geneticist to do specific analysis.  
 The capability to recognize symptoms and quickly give to parents a diagnosis.

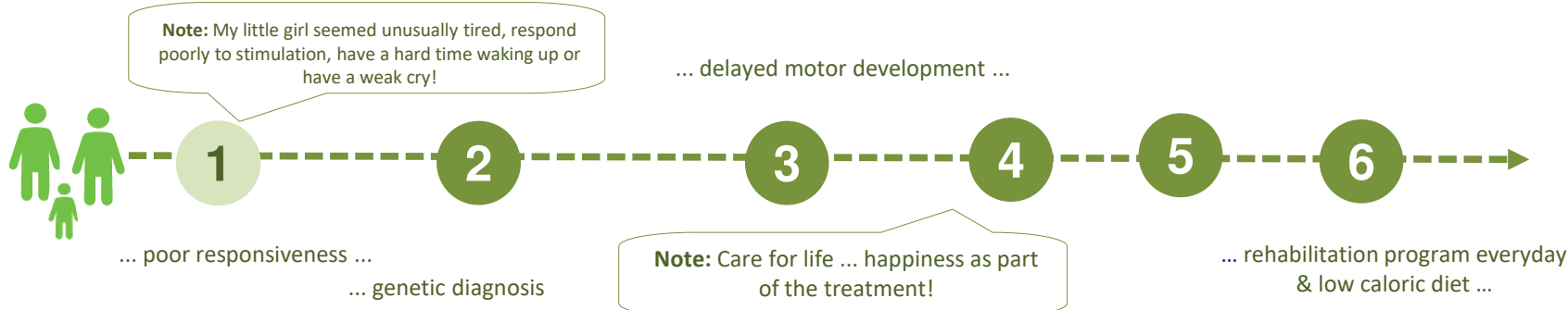
**Ideally:** The chance to do all the analysis in the same place;  
 Capability of communication to afford the first steps into the Syndrome;  
 Start the early intervention to accelerate the development (especially motion perception and micromanipulation.

**Note: Case Manager / Coordinator and Multi-Professional Approach!**  
**Ideally:**  
 All the therapy needed to express at the best all the potentiality of the person

**Note:**  
 Coordination Centre to case manage a multi-professional team (teacher, therapists, doctors, family, educators....)  
 See MDT x twice yearly  
 Aim to improve capability and quality of life!

**Ideally:**  
 We need a well-structured social system that could give us a guideline about all the things needed. We should find answers to our questions and solution for our problems!

**Ideally:** Continuous development programme (e.g.: in a resource centre)



**1. Pre-Diagnosis:** Poor muscle tone; Distinct facial features  
Poor sucking reflex and difficult feeding; Almost no cry.

**1st Symptom:** Hypotonia and difficulties in feeding;  
Poor responsiveness; Sitting up and walking — later Hypotonia and difficulties in feeding;  
unusually tired, respond poorly to stimulation, have a hard time waking up or have a weak cry.  
Sitting up and walking later.

**Ideally:**  
Improvement of muscle tone  
Special technics for feeding and stimulating exercises  
Special technics for feeding

Medical treatment and early rehabilitation intervention

**2. Diagnosis**  
Unusual food-seeking behaviors, hypogonadism  
Intellectual disability;  
Delayed motor development  
Speech problems  
Small hands and feet

Thick saliva, dental problems caused by gastric acid reflux.  
Overweight if not eating low calorie diet

**Note:** Medication & rehabilitation  
Support for education & school integration & inclusion into community

**Ideally:** GH Treatment  
Sex hormone treatment  
Permanent rehabilitation program; Education and work  
Independent life skills

**3. First Treatment**  
Delayed in motor development  
Rehabilitation program, 3 weeks every 3 months

**Surgery** – some cases of scoliosis

Physiotherapy  
Dietician

**Ideally:**  
Improvement in general health and reduced weight

**4. Follow-Up Care...**  
Delayed in motor and intellectual development, behavior problems, Speech problems  
*A special behavior. Easily stressed. Often anxiety with changes. Autistic symptoms, social interaction difficult some develop psychiatric diseases*

Overweight and sleep apnea;  
Medication & rehabilitation  
Support for education & school integration & inclusion into community; a proper job and qualification

**Ideally:**  
Maintaining the weight, even reducing it  
Relevant school education, individual approach.  
*NO one can ever live alone, need supervision of food and eating. Need much personal support to avoid behavioral problems.*  
Education and work. Cannot live independent, but many learn many skills  
Work: must be sheltered and reduced hours: no one can work normally 8 hours per day. They do not have the strength.



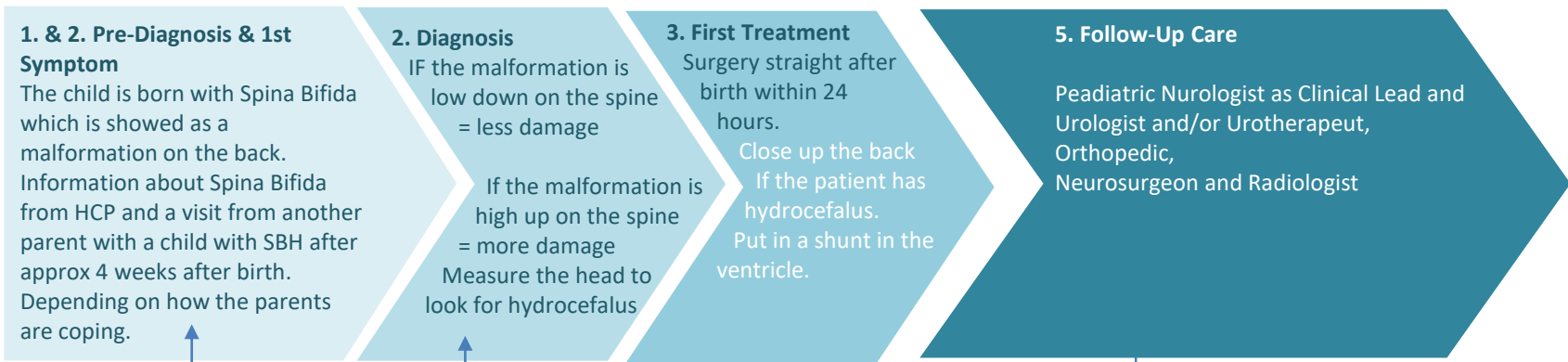
**Information and European support groups:**  
[www.apwromania.ro](http://www.apwromania.ro)

**Note:** Might be detected in the womb at an ultrasound control, defect on the spine or an unnatural big head.

**Note:** Patient will be at the hospital/clinic/specialist center for 4-7 days so it is possible to do all the exams!



... at 16-19 wks of pregnancy ...      ... at birth ...      ... diagnosis straight after birth ...      ... from birth to departure from life. First time when the baby is born. After that needs a checkup every year ...



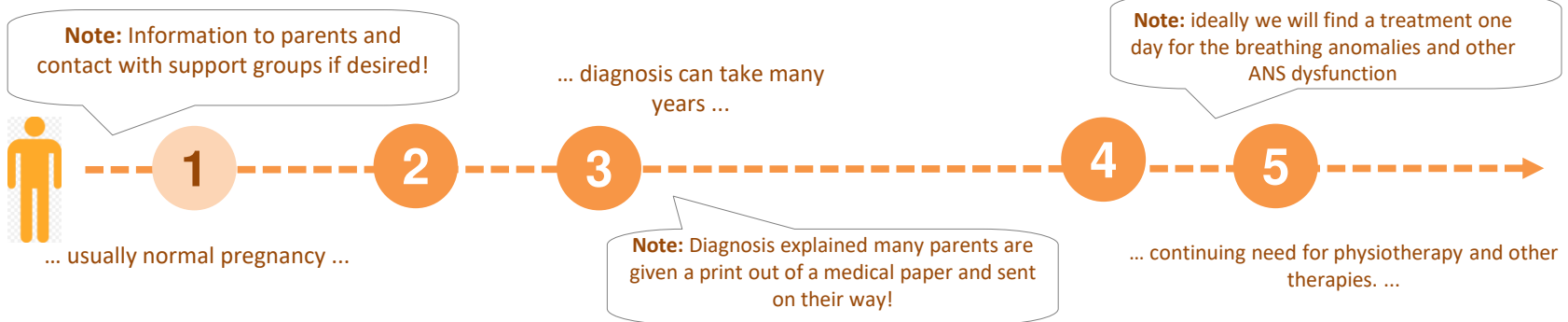
**Note:** The parents can choose about proceeding with the pregnancy, surgery in the womb or leave it as it is and wait until birth!

**Ideally:** The parents feel their being well taken care of, having faith in the doctors. Being well informed on why and what to do next

**Ideally:** The parents have a patient responsible doctor who has all the information on the child and who is listening to parents concerns

**Note:**  
**Urologist/urosergeon** – checks up the kidney, bladder and bowl movement. If there are any problems a discussion is needed for surgery.  
**Urotherapist** – examine bladder control and bowl movement. Teach how to do clean intermittent catheterization with is very important to be able to do yourself.  
**Orthopedic** – checks for defects on feet’s, knees, hips, scoliosis, kufosis, etc. If needed – consult with an orthopedic technician or surgery.  
**Neurosurgeon** – Hydrocephalus, Arnold chiari syndrom, tethered cord which can do a lot of damage like lost of feel, pain and so on. If problems there is a need of surgery  
**The Neurologist** – is the patient responsible doctor who checks out the rest like epilepsy, eyes pressure, cognition, ability to swallow and eat, weight (to big /to small) etc and writes referrals to specialists in the area for further treatment.

This patient journey has been completed following a methodology developed by EURORDIS. EURORDIS cannot be held responsible for any use which may be made of the information contained herein.



**1. & 2. Pre-Diagnosis:** Usually normal pregnancy. Some ultrasounds may show something, some may have initial feeding problems but others not. Parents will begin to notice delay in developmental milestones, as child grows.

**1st Symptom:** Lack of smiling at 6 weeks and all motor milestones usually delayed. Distinct facial features which although dysmorphic not strikingly. Hypotonia.

**Ideally:**

Doctors take parents' concerns seriously early so therapy can begin promptly. Initially this is physiotherapy.

**3. Diagnosis & 1st Treatment**

Blood test only available since 2007 but needs a geneticist to suspect PTHS. MRI may find some structural anomalies. Distinct facial features, motor and cognitive delay, hypotonia, lack of speech, breathing regulation anomalies, unstable gait if walking, GI problems constipation, reflux myopia, slender fingers, palmar crease, stereotypies

**Note:** Physiotherapy once doctors agree there is developmental delay. In addition children often receive OT, ST, MT and SIT. Regular follow-up by paediatrician. May have medication for constipation or reflux

**Note:** Sight and hearing checked. Feet looked at and reviewed regularly for specialist footwear. Back checked for scoliosis. EEG done for base-line. Advice for constipation. OT assessment for equipment

**4. Surgery**

Some children may need foot surgery if their feet pronate too much. Some may need surgery for undescended testes. Possibly for strabismus

**Note:**

Hydrotherapy available after surgery and other physiotherapy!

**Ideally:**

Good communication between different specialists and therapists.

**5. Follow-Up**

Many children need medication for constipation, reflux, seizures. Some have oxygen for breathing anomalies.

**Note:** SEN schools involvement early on. Respite for family. Help with care in home. Regular access to specialist!