

DETERMINE IF BBS IS THE UNDERLYING CAUSE OF YOUR PATIENT'S RENAL ANOMALIES

There is a possibility that one or more of your patients with renal anomalies has Bardet-Biedl syndrome (BBS).^{1,2}

BBS IS A RARE CILIOPATHY
ASSOCIATED WITH
RENAL IMPAIRMENT

such as polyuria, frequent urinary tract infections, or end-stage renal disease requiring renal transplantation^{2,3}

**UP
TO 82%**

of patients with BBS are likely to be affected by renal anomalies and malformations^{1,2}

**RENAL ANOMALIES, EARLY-ONSET OBESITY, AND
VISUAL IMPAIRMENT ARE ALL KEY SIGNS OF BBS^{2,4}**

~ 50%

of patients with BBS have structural renal anomalies visible on an ultrasound¹

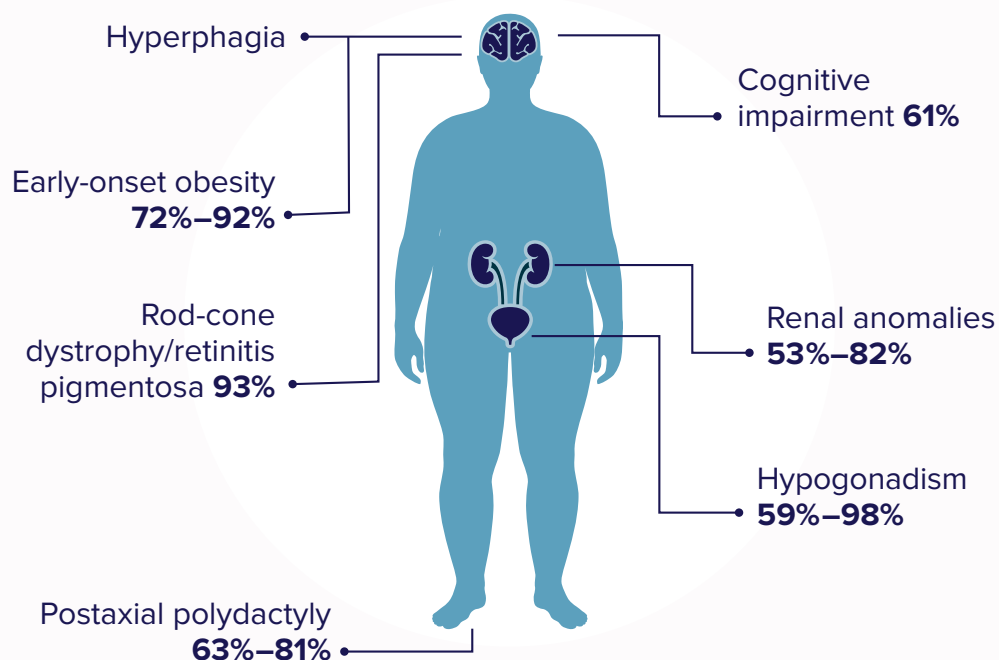
**OBESITY<sup>DUE
TO</sup> BBS
CAN'T WAIT**

Obesity due to BBS is early-onset and progressive; it is critical to proactively mitigate it to reduce further impact on renal function and other comorbidities⁴⁻⁶

YOU ARE UNIQUELY POSITIONED TO DIAGNOSE PATIENTS WITH BBS^{1,2}

**Patients may be unaware of the connection between
their renal anomalies and other symptoms^{1,3,5}**

**BBS is a ciliopathy that impacts several body
systems, requiring multidisciplinary care^{3,5}**



**To help patients get the support they need, it is important
to proactively diagnose BBS and educate patients on
underlying causes of kidney-related issues^{4,6}**

HELP YOUR PATIENTS GET THE SUPPORT THEY NEED



Rhythm InTune helps patients navigate their journey to a BBS diagnosis by providing access to educational resources, connecting them to a community, and sharing information about treatment.



**Share the
postcard**

**Please share the Rhythm
InTune postcards provided by
your Rhythm Representative
with your BBS patients or
their caregivers.**

References: 1. Forsythe E, Sparks K, Best S, et al. Risk Factors for Severe Renal Disease in Bardet-Biedl Syndrome. *J Am Soc Nephrol*. 2017;28(3):963-970. doi:10.1681/ASN.2015091029 2. Putoux A, Attie-Bitach T, Martinovic J, Gubler MC. Phenotypic variability of Bardet-Biedl syndrome: focusing on the kidney. *Pediatr Nephrol*. 2012;27(1):7-15. doi:10.1007/s00467-010-1751-33. 3. Florea L, Caba L, Gorduza EV. Bardet-Biedl Syndrome-Multiple Kaleidoscope Images: Insight into Mechanisms of Genotype-Phenotype Correlations. *Genes (Basel)*. 2021;12(9):1353. doi:10.3390/genes12091353 4. Forsythe E, Mallya UG, Yang M, et al. Burden of hyperphagia and obesity in Bardet-Biedl syndrome: a multicountry survey. *Orphanet J Rare Dis*. 2023;18(1):182. doi:10.1186/s13023-023-02723-4 5. Forsythe E, Beales PL. Bardet-Biedl syndrome. *Eur J Hum Genet*. 2013;21(1):8-13. doi:10.1038/ejhg.2012.115 6. Forsythe E, Kenny J, Bacchelli C, Beales PL. Managing Bardet-Biedl Syndrome-Now and in the Future. *Front Pediatr*. 2018;6:23. doi:10.3389/fped.2018.00023