

Panel 1: 2016 version of the surveillance protocol for individuals with germline TP53 pathogenic variants

Children (birth to age 18 years)

Adrenocortical carcinoma

- Ultrasound of abdomen and pelvis every 3–4 months
- Blood tests every 3–4 months* for 17-OH-progesterone, total testosterone, dehydroepiandrosterone sulfate, and androstenedione values
- 24 h urine cortisol, if feasible

Brain tumour

- Annual brain MRI

Soft tissue and bone sarcoma

- Annual rapid whole-body MRI

Leukaemia or lymphoma

- Blood tests every 3–4 months: complete blood count, erythrocyte sedimentation rate, lactate dehydrogenase

General assessment

- Complete physical examination every 3–4 months, including anthropometric measurements plotted on a growth curve (with particular attention to rapid acceleration in weight or height), signs of virilisation (pubic hair, axillary moisture, adult body odour, androgenic hair loss, clitoromegaly, or penile growth), and full neurological assessment
- Prompt assessment with primary care physician for any medical concerns

Adults

Adrenocortical carcinoma (age 18–40 years)

- Ultrasound of abdomen and pelvis every 3–4 months
- Blood tests every 3–4 months* for 17-OH-progesterone, total testosterone, dehydroepiandrosterone sulfate, and androstenedione values
- 24 h urine cortisol, if feasible

Breast cancer

- Monthly breast self-examination (age 18 years onwards)
- Clinical breast examination twice a year (age 20–25 years onwards, or 5–10 years before earliest known breast cancer in the family [whichever comes first])
- Annual mammography† and breast MRI screening‡ (age 20–75 years, or 5–10 years before earliest known breast cancer in the family [whichever comes first])
- Consider risk-reducing bilateral mastectomy

Brain tumour (age 18 years onwards)

- Annual brain MRI

Soft tissue and bone sarcoma (age 18 years onwards)

- Annual rapid whole-body MRI‡
- Ultrasound of abdomen and pelvis every 3–4 months

Colorectal cancer

- Colonoscopies every 2 years (start at age 25 years, or 10 years before earliest known colon cancer in the family [whichever comes first])

Melanoma (age 18 years onwards)

- Annual dermatological examination

Leukaemia or lymphoma (age 18 years onwards)

- Blood tests every 3–4 months: complete blood count, erythrocyte sedimentation rate, lactate dehydrogenase

General assessment

- Complete physical examination every 3–4 months
- Prompt assessment with primary care physician for any medical concerns

*Serial specimens obtained at the same time of day and processed in the same laboratory.
†Breast ultrasound with mammography as indicated by breast density, but not instead of breast MRI or mammography. ‡Breast MRI to alternate with annual rapid whole-body MRI (one scan every 6 months).