QUESTION

Should measuring testosterone levels vs. no testing be used for all sexually active men reporting sexual dysfunction with Friedreich ataxia?	
POPULATION:	all sexually active men reporting sexual dysfunction with Friedreich ataxia
INTERVENTION:	measuring testosterone levels
COMPARISON:	no testing
MAIN OUTCOMES:	Sexual drive; Erectile function; Sexual quality of life;

ASSESSMENT

Problem

Is the problem a priority?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ○ Probably yes ● Yes ○ Varies ○ Don't know	Data from the FA Clinical Outcome Measures (FA-COMS) registry found 3.3% (15/456) females and 6.8% (30/439) males reported sexual dysfunction (Lynch, 2017). **Two studies exploring sexual dysfunction in FA:** Sexual dysfunction reported in 30/36 (83%) of individuals with FA (Lad et al, 2017). Sexual functioning, sexual satisfaction and the capacity to form intimate relationships is impacted by FA as evident by: erectile dysfunction reported in 57% (20/35) of males, inadequate vaginal lubrication interfering with sexual responsiveness in 57.7% (26/45) of females, and reduced genital sensation in 47% (51/107) of people with Friedreich ataxia. In addition, 88% (94/107) reported problems moving their body during sexual activity and 73%, (78/107) reported reduced confidence about their sexuality due to FRDA (Corben et al, 2021).	The Friedreich's ataxia Clinical Management Guideline Patient and Parent Advisory Panel were interviewed on the consequences, urgency and priority of the topic. 3/7 indicated disturbance of sexual function was probably not serious, 3/7 indicated probably serious, 1/7 indicated didn't know if serious. 4/7 indicated disturbance of sexual function was probably not urgent, 1/7 indicated probably urgent, 2/7 indicated didn't know if urgent. 3/7 indicated disturbance of sexual function was probably not a priority, 1/7 indicated probably a priority, 2/7 indicated didn't know if a priority, 1/7 indicated varies/sometimes a priority. (Aug 2020).

Desirable Effects

How substantial are the desirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Trivial ○ Small ○ Moderate ○ Large ○ Varies ● Don't know	A search of four databases (CENTRAL, MEDLINE, EMBASE, CINAHL) identified no randomized, non-randomized controlled, cohort and case studies published from 2014 through to 15 October 2020. No further published evidence meeting the search criteria was identified in the Consensus Clinical Management Guidelines for Friedreich's ataxia, 2014.	

Undesirable Effects

How substantial are the undesirable anticipated effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Large ○ Moderate ○ Small ○ Trivial ○ Varies ● Don't know	A search of four databases (CENTRAL, MEDLINE, EMBASE, CINAHL) identified no randomized, non-randomized controlled, cohort and case studies published from 2014 through to 15 October 2020. No further published evidence meeting the search criteria was identified in the Consensus Clinical Management Guidelines for Friedreich's ataxia, 2014.	

Certainty of evidence

What is the overall certainty of the evidence of effects?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Very low ○ Low ○ Moderate ○ High ● No included studies	No published evidence.	

Values

Is there important uncertainty about or variability in how much people value the main outcomes?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Important uncertainty or variability ○ Possibly important uncertainty or variability ○ Probably no important uncertainty or variability ● No important uncertainty or variability		

Outcomes	Importance	Certainty of the evidence (GRADE)
Sexual drive - not measured	IMPORTANT[a]	-
Erectile function - not measured	IMPORTANT[b]	-

	Sexual quality of life - not measured	IMPORTANT[c]	-

a. Identified as important (5/6) and requiring more information (1/6) by people with FA and important by expert authors on this topic
b. Identified as important (4/6), low importance (1/6) and requiring more information (1/6) by people with FA and important by expert authors on the topic.
c. Identified as critical (3/6), important (2/6) and requiring more information (1/6) by people with FA and important by expert authors on the topic.

Balance of effects

Does the balance between desirable and undesirable effects favor the intervention or the comparison?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ Favors the comparison ○ Probably favors the comparison ● Does not favor either the intervention or the comparison ○ Probably favors the intervention ○ Favors the intervention ○ Varies ○ Don't know	No published evidence.	

Acceptability

Is the intervention acceptable to key stakeholders?

JUDGEMENT	RESEARCH EVIDENCE	ADDITIONAL CONSIDERATIONS
○ No ○ Probably no ● Probably yes ○ Yes ○ Varies ○ Don't know	No published evidence.	The Friedreich's ataxia Clinical Management Guideline Patient and Parent Advisory Panel were asked if the intervention was acceptable (weighing up the balance between benefits, harms and costs). 2/5 indicated measuring testosterone levels was probably reasonable, 2/5 indicated reasonable, 1/5 indicated didn't know if reasonable. (Aug 2020).

SUMMARY OF JUDGEMENTS

	JUDGEMENT						
PROBLEM	No	Probably no	Probably yes	**Yes**		Varies	Don't know
DESIRABLE EFFECTS	Trivial	Small	Moderate	Large		Varies	**Don't know**
UNDESIRABLE EFFECTS	Large	Moderate	Small	Trivial		Varies	**Don't know**
CERTAINTY OF EVIDENCE	Very low	Low	Moderate	High			**No included studies**
VALUES	Important uncertainty or variability	Possibly important uncertainty or variability	Probably no important uncertainty or variability	**No important uncertainty or variability**			
BALANCE OF EFFECTS	Favors the comparison	Probably favors the comparison	**Does not favor either the intervention or the comparison**	Probably favors the intervention	Favors the intervention	Varies	Don't know
ACCEPTABILITY	No	Probably no	**Probably yes**	Yes		Varies	Don't know

TYPE OF RECOMMENDATION

Strong recommendation against the intervention	Conditional recommendation against the intervention	**Conditional recommendation for either the intervention or the comparison**	Conditional recommendation for the intervention	Strong recommendation for the intervention
○	○	●	○	○

CONCLUSIONS

Recommendation

We cannot recommend either testing morning serum testosterone or not measuring morning serum testosterone in all sexually active men with Friedreich ataxia reporting sexual dysfunction; however, we suggest morning serum total testosterone should only be tested in males with FRDA with clinically suspected hypogonadism, or if first-line treatment of erectile dysfunction is unsuccessful.

Justification

We cannot recommend either testing morning serum testosterone or not measuring morning serum testosterone in all sexually active men with Friedreich ataxia reporting sexual dysfunction; however, we suggest morning serum total testosterone should only be tested in males with FRDA with clinically suspected hypogonadism, or if first-line treatment of erectile dysfunction is unsuccessful.

Subgroup considerations

This recommendation is for sexually active males reporting sexual dysfunction. Sexually active males with Friedreich ataxia with clinically suspected hypogonadism or those for whom first-line treatment of erectile dysfunction has not been successful could have morning serum total testosterone measured.

Research priorities

Further research is required to establish if low testosterone levels are a consistent and contributory factor in sexual dysfunction in males with Friedreich ataxia and reported sexual dysfunction.

References

Corben LA, Hermans MM, Marks A, Crowe LM, Delatycki MB. Sexual function, intimate relationships and Friedreich ataxia. J Neurol. 2021;268(3):1088-95.

Lad M, Parkinson MH, Rai M, Pandolfo M, Bogdanova-Mihaylova P, Walsh RA, et al. Urinary, bowel and sexual symptoms in a cohort of patients with Friedreich's ataxia. Orphanet J Rare Dis. 2017;12(1):158.

Lynch D. FA Clinical Outcome Measures (FA-COMS) Registry (unpublished data): clinicaltrials.gov; 2017 [Available from: https://clinicaltrials.gov/ct2/show/NCT03090789]