

Adrenalectomy for removal of adrenal incidentalomas: are we being too cautious? A Retrospective Database Analysis

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Category: Adrenal and steroids

Introduction

Incidentally discovered adrenal masses ('incidentalomas') are found in 2% of the population. Adrenalectomy is necessary only in a small proportion of such patients¹. Uncertainty exists over the need for removal of lesions between 4-6cm and those with low lipid content on CT scanning (found in 20% of benign adenomas). Our centre tends to offer surgery for all adenomas >4cm.

Method

We scrutinised our adrenal surgical database between 2009-2017. All patients who had undergone adrenalectomy due to size >4cm, imaging characteristics not typical of benignity (low lipid content) or growth velocity >20% over 12 months were identified. We then examined subsequent adrenal histology with original indication for surgery.

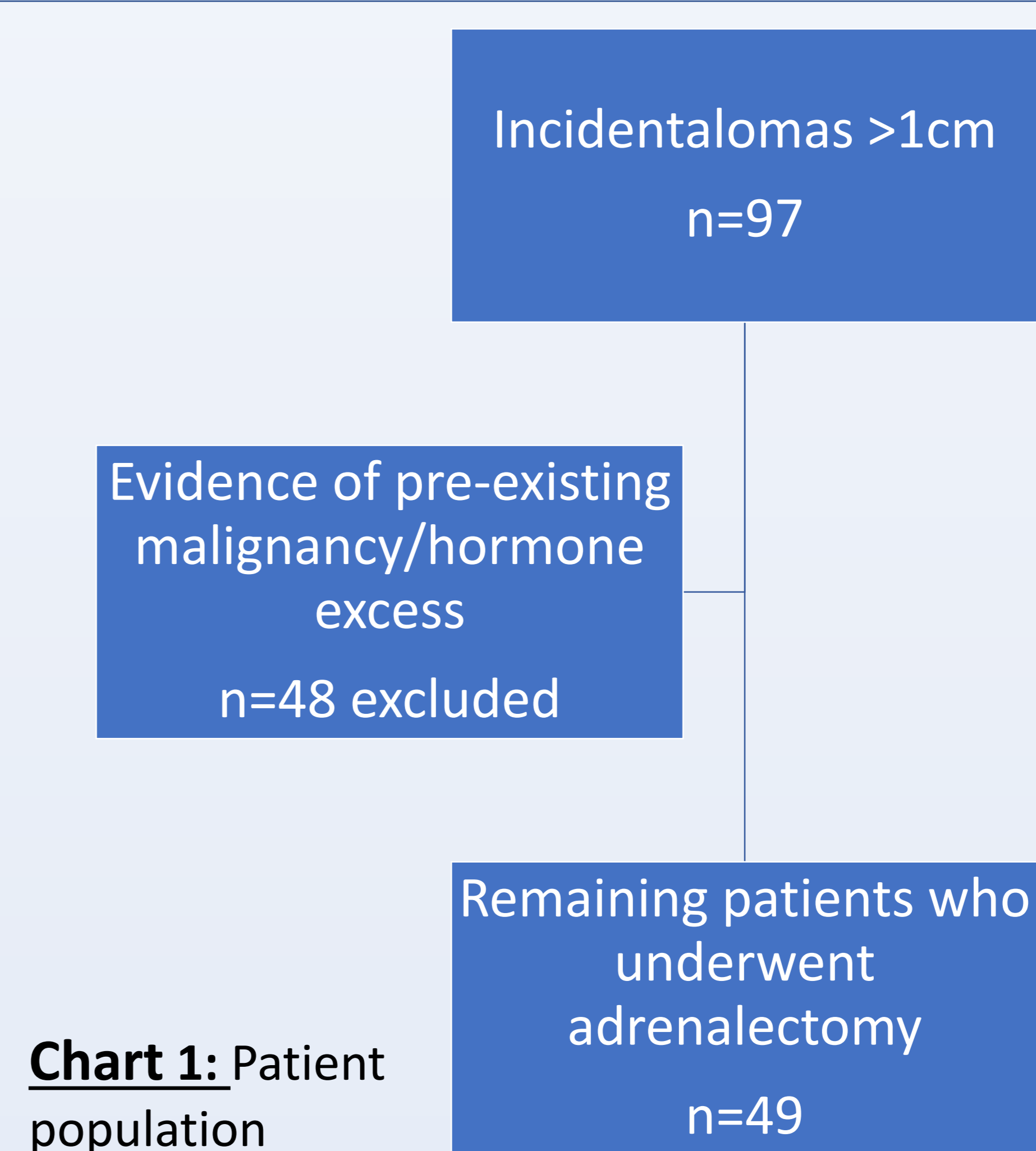


Chart 1: Patient population

Results

The majority of excised lesions were benign cortical adenomas. Three tumours were histologically classified as pheochromocytomas despite being biochemically silent. If size threshold had been increased to >6cm, removal of benign lesions is reduced by 39%

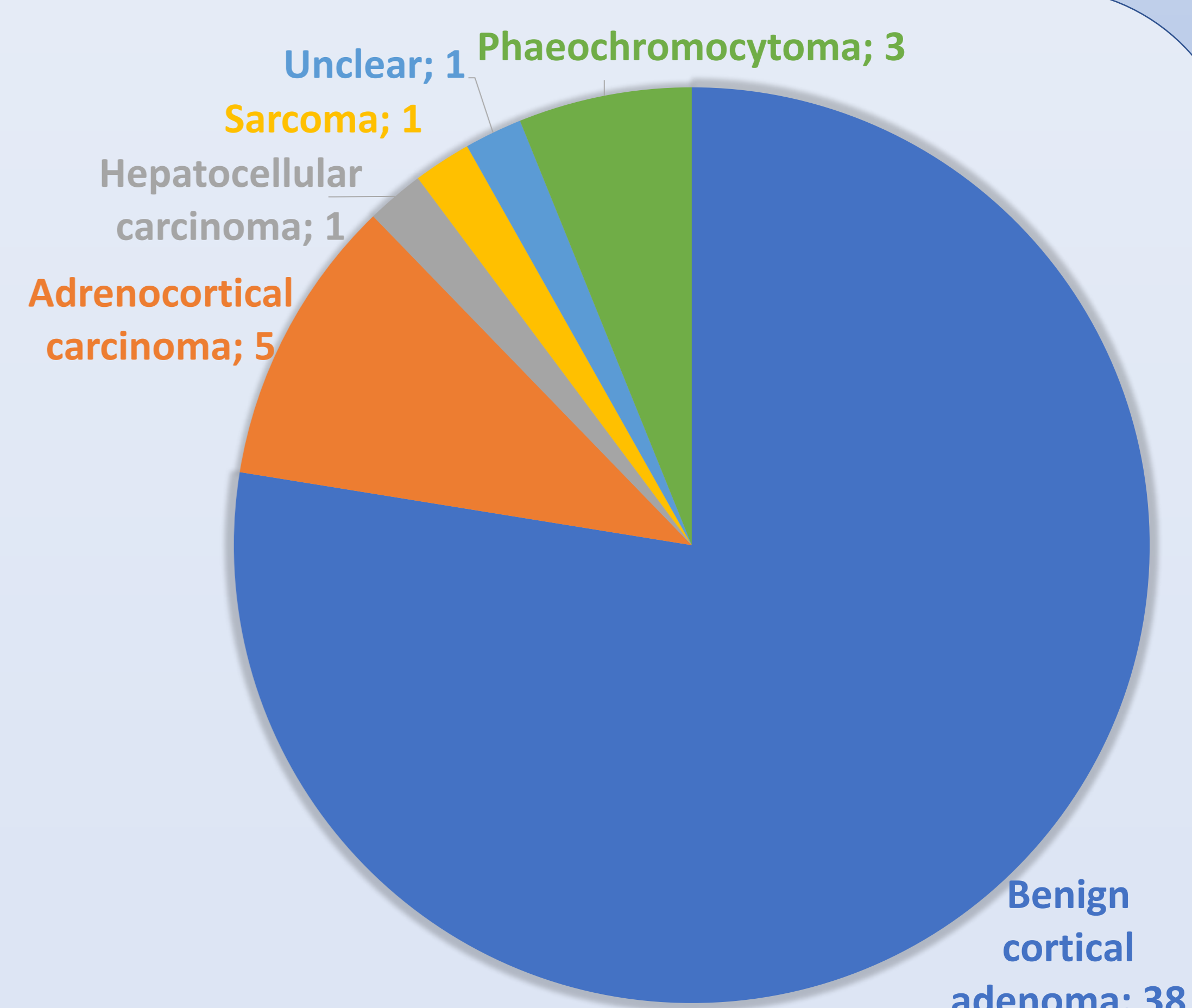


Chart 2: Characteristics of lesions

Table 1: Indications for removal

	Benign (n=38)	Malignant (n=8)	Functional (n=3)
Size >4cm	26	6	2
Size >6cm	11	5	2
Atypical radiology	10	2	1
Growth velocity	5	0	0

Conclusion

In our series of 49 subjects who underwent adrenalectomy, only 8 (16%) were found to have malignant lesions. Increasing the size threshold to 6cm reduced the number of "unnecessary" operations, without missing malignancy. This favours a more conservative approach to management of patients, in whom, size >4cm would be the sole indication for surgery.

References

¹Fassnacht M et al Management of adrenal incidentalomas: European Society of Endocrinology Clinical Practice Guideline in collaboration with the European Network for the Study of Adrenal Tumors Eur J Endocrinol 2016 175:G1-34