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Does Archer's Drinking Fit Within the NHS Guidelines?

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Abstract

This paper looks at the alcohol consumption of Sterling Archer, and calculates the average unit consumption per week to calculate whether Archer's drinking fits within the recommended unit intake as given by the NHS. It has been determined that based on the drinks seen during screen time (not including flashbacks or empty bottles next to him at the start of episodes) on average Archer drinks 10.10 units per week, meaning that Archer drinks less than the NHS's guideline. However, by accounting for the daily Bloody Marys that Archer has for breakfast, this number becomes 34.40 units per week, well above the NHS guideline.

Introduction

Sterling Archer himself states that most people would think that he drinks too much, however most of it is done professionally, not socially [1]. This is due to his need to fit in with agents from other organisations to obtain information and to keep his reputation as the 'world's greatest secret agent' [1]. Therefore, Archer lives by the belief that if he stopped drinking, the 'accumulated hangover would kill me', thus bringing into question if there are likely to be health implications from the amount of alcohol consumed.

Assumptions

There are multiple different assumptions being made when calculating Archer's alcohol intake. Firstly, it is assumed that all of the drinks in Archer's hands get consumed apart from if they are handed to someone else, or smashed. This allows the total volume of alcohol consumed to be calculated from the volume of each container [2]; it is also presumed that the containers are as full as possible, the recipes are for ratios only. Secondly, only on screen or known drinks are counted in this paper - flashbacks to drunken times are not included as it is not known how much alcohol has been drunk to get to that state. Thirdly, the time frame can be calculated by 8 episodes is equal to 6 months unless a timeline is stated in the episodes themselves (as stated in 'Timescale' below). Additionally, the

alcohol consumption can only be calculated starting from Episode 1 of Season 1, so it is assumed that Archer did not drink before that point. Finally, all trivia which is mentioned by Archer relating to common frequency of drinks and methods of making cocktails are believed to be true - this allows for the unit calculations of the drinks to be as accurate as possible to Archer's drinking habits. This means that the only drinks that are counted towards the unit tally without being shown on screen are the daily 'Breakfast Bloody Marys' that Archer consumes [3].

Unit calculation

In order to calculate how many units Archer consumed per week over the seasons, a tally was made of the type of drink consumed, number of drinks of each type, and size of container (on screen). If the ABV (alcohol by volume) was stated in the episode (i.e. Brandy (Aine Amagnac 40%)), then this value was used for the calculations. For collated results see table A in the Appendix. The units of each drink of one type of alcohol were then calculated using Equation 1 [4]:

$$\begin{aligned} \text{Units} &= \frac{ABV \times \text{volume of container (ml)}}{1000} \quad (1) \end{aligned}$$

In order to calculate the percentage ABV in cocktails, all of the alcoholic and non-alcoholic ingredients had to be accounted for as shown in Equation 2 [5]:

$$ABV_{cocktail} = \left(\frac{(\%ABV_1 \times Vol_1) + (\%ABV_2 \times Vol_2)}{Vol_{total}} \right) \times 100 \quad (2)$$

From these calculations, the units in each cocktail could be calculated from Equation 1, and the total units consumed shown on screen could be determined.

Timescale

As the TV show Archer has no proper timescale, this had to be estimated based off the clues given in the TV episodes. For instance the time between Ray getting paralysed to being able to walk again was between Season 3 Episodes 1 and 9, and was stated to be six months [6] meaning that eight episodes can correlate to six months. Therefore this estimate can be used for all of the other seasons as well, and should be sufficient to calculate the total length of all of the seasons combined. As Season 1 has 10 episodes and Seasons 2 to 6 all have 13 episodes each, this gives a total number of 75 episodes. Therefore the on screen timescale can be calculated to be for 56.25 months by using six months = eight episodes. This methodology gives a shorter timescale than what is stated in the show - one of the characters (Lana states that Season 5 lasted for approximately 1 year [7] (13 episodes = 9.75 months based on the assumptions)). Therefore when working out the timescale, Season 5 is said to be a year (12 months) instead of 9.75 months to fit with what is stated in the show, whereas all other seasons fit with the timescale calculated (6 months = 8 episodes).

Additionally to this minimum timescale, there are multiple times where the length of events are stated

e.g. Archer's cancer treatment course (watching a video every week for 3 months once he was cured [8]) and the age of babies which were born on the show [9]. Therefore by taking these into account, the total time is calculated to be 64.5 months.

Relevance to NHS recommendations

The NHS recommended weekly consumption of alcohol for a male is no more than 14 units per week. The weekly consumption for Archer can be calculated as the total units divided by the total number of weeks. Assuming that there are 4 weeks per month, the total number of weeks is 258. This gives a total weekly unit consumption of 10.10 units per week. This does fit within the weekly consumption units per week as stated by the NHS. However, it is known that Archer has a Bloody Mary for breakfast every day [10]. By calculating the ABV of Archer's Bloody Mary to be 12.2% [1], the unit consumption just based off these drinks is 3.47 units per Bloody Mary. Therefore, he has an extra 6,266.82 units (one per day for the timescale calculated at 258 weeks). This means that the weekly consumption becomes 34.40 units, which is much higher than the recommended NHS intake.

Conclusion

It can be seen that Archer's screen time drinking does fit within the guidelines set by the NHS for a person's weekly consumption of alcohol. However, by accounting for the daily breakfast Bloody Marys, this number becomes more than double the recommended amount. Furthermore, there is a second recommended value that the daily alcohol intake for men is 3.75 units [11], a value that Archer almost hits just by drinking one Bloody Mary. Therefore, Archer does not fit within the NHS guidelines for drinking when considering the off screen, but known, drinks.

References

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Appendix:

Type of Alcohol	Number of Drinks	Type of Glass	Content (ml) [13]	Total liquid consumed (ml)	ABV %	Total Units
Scotch (43% ABV)	98	Old Fashioned	255.718	25060.364	43.0	1077.60
Gin and Tonic	2	High Ball	284.131	568.262	16.0	9.09
Martini [1]	2	Martini	227.305	454.61	32.5	14.75
Bloody Mary [1]	15	High Ball	284.131	4261.965	12.2	51.78
White Wine	1	White Wine Glass	355.163	355.1633	12.0	4.26
Champagne	8	Champagne Flute	170.478	1363.824	12.0	16.37
Melon Balls [9]	10	High Ball	284.131	2841.31	12.1	34.50
Hip Flask of Bourbon	4	Hip Flask	227.305	909.22	40.0	36.37
Hurricanes [9]	11	Hurricane Glass	426.196	4688.156	17.8	83.34
Beer (6%)	18	Bottle	340.957	6137.226	6.0	36.82
Vodka	2	Shot Glass	42.6196	85.2392	40.5	3.45
Brandy (Aine Amagnac 40%)	2	Brandy Glass	170.478	340.956	40.0	13.64
Mimosa [9]	1	Champagne Flute	170.478	170.478	6.0	1.02
Gummy Roy [1]	1	Old Fashioned	255.718	255.718	40.0	10.23
Flaming Martini [1]	1	Martini	227.305	227.305	32.5	7.38
Red Wine	6	Red Wine Glass	227.305	1363.83	14.0	19.09
Rum (Bottles)	2	Bottle	750	1500	40.0	60.00
Mamajuana	2	Gallon	4546.09	9092.18	30.0	272.77
Moonshine	2	Mason Jar	454.609	909.218	60.0	54.55
Margarita [9]	2	Margarita	340.957	681.914	78.0	53.19
Irish Cream (bottle)	1	Bottle	750	750	17.0	12.75
Bertagnolli (bottle)	1	Bottle	750	750	56.0	42.00
Red Beer (Can)	6	Can	540	3240	6.0	19.44
Tequilla (bottle)	2	Bottle	750	1500	38.0	57.00
French Champagne (bottle)	4	Bottle	750	3000	12.0	36.00
Long Island Ice Tea [1]	3	High Ball	284.131	852.393	29.0	24.72
Hairy Navel	6	High Ball	284.131	1704.786	12.7	21.65
Coffee Liquer (bottle)	1	Bottle	750	750	26.5	19.88
Irish Coffee (mug)	2	Mug	350	700	8.0	5.60
Tequilla shots	10	Shot Glass	42.6196	426.196	38.0	16.20
Port	1	Sherry Glass	56.8261	56.8261	20.0	1.14
Peach Snapps (bottle)	3	Bottle	750	2250	23.0	51.75
Rum (glass)	12	Old Fashioned	255.718	3068.616	40.0	122.74
Cobra Whisky	1	Shot Glass	42.6196	42.6196	40.0	1.70
Mini bottles	11	Mini Bottle	50	550	40.0	22.00
Peppermint Patty [1]	4	Thermos	454.609	1818.436	10.8	19.64
Tom Collins [1]	3	Collins	397.783	1193.349	16.0	19.09
Mulled Wine	2	Mug	350	700	12.3	8.61
Black Mexican [9]	2	Collins	397.783	795.566	32.3	25.66
Fish Bowl	1	Fish Bowl	2568.26	2568.26	7.1	18.21
Vodka bottles	1	Bottle	750	750	40.5	30.38
Green Russian [1]	1	Collins	397.783	397.783	34.6	13.75
Schutzenmeister	1	~500ml	500	500	35.0	17.50
Red Wine (bottle)	1	Bottle	750	750	14.0	10.50
Isopropyl (medical grade)	4	16fl oz container	454.609	1818.436	70.0	127.29
Total				92200.2052		2605.41

Table A) A table showing the different types of drink and unit consumption for each one that Sterling Archer drinks during screen time from Seasons 1 to 6. All ABV calculations are taken from on screen recommendations where possible [12]. The ml content of the drinks has been converted from fluid ounces (as Archer is an American TV show, American glass sizes have been used [13]). Cocktail ABV calculations have been carried out from the recipes stated by Archer's book [1] or the Archer Wiki [10] where applicable.